

JOANNA GOTLIB

Opinie studentów pielęgniarstwa na temat realizacji zajęć dydaktycznych z przedmiotu „Prawo w ochronie zdrowia” w formie kursu e-learningowego

Streszczenie

Wstęp. Od roku 2011/2012, po raz pierwszy w historii Wydziału Nauki o Zdrowiu WUM rozpoczęto kurs e-learningowy „Kształcenie w zakresie Prawa w ochronie zdrowia”.

Cel. Celem pracy była analiza opinii studentów na temat realizacji kształcenia z przedmiotu w formie kursu e-learningowego.

Material i metody. W badaniu udział wzięło 156 studentów studiów II stopnia (39%): 84 studentów II roku studiów stacjonarnych i 72 studentów I roku studiów nie-stacjonarnych. Jako metodę badawczą zastosowano anonimowy kwestionariusz umieszczony na platformie e-learningowej Moodle: <https://docs.google.com/spreadsheet/viewform?formkey=dGpoU0puUk5Qak9xaUpnOEN2NTZNX3c6MQ>.

Wyniki. 98% studentów po raz pierwszy brało udział w kursie e-learningowym i w przyszłości byłoby zainteresowani taką formą kształcenia (76%). Zdaniem 70% badanych kurs wpłynął na podniesienie jakości kształcenia. Dla 91% badanych treści kształcenia były ciekawe, a dla 70% wpłynęły na zainteresowanie nauczaniem przedmiotem oraz motywowały do pogłębiania wiedzy. Za najciekawsze uznano moduły dotyczące: praw pacjenta i organizacji pielęgniarstwa. 61% badanych poświęciło więcej czasu na naukę podczas kursu e-learningowego niż podczas tradycyjnych zajęć. Zaledwie 20 osób miało problemy techniczne z obsługą platformy Moodle.

Wnioski. W badanej grupie studentów przeważały pozytywne opinie o kursie e-learningowym i jego pozytywnym wpływie na jakość kształcenia z tego przedmiotu. Badania opinii studentów będą kontynuowane w większej grupie, ponieważ prezentowane przez studentów uwagi pozwalają na organizacyjne doskonalenie kursów zgodnie z ich oczekiwaniami, co może wpływać na dalsze podnoszenie jakości i atrakcyjności kształcenia przez Internet i zwiększenie jego efektywności.

Słowa kluczowe: blended-learning, kształcenie na odległość, jakość kształcenia, prawo w ochronie zdrowia.

Opinions of nursing students on the presentation of the learning content of the e-learning course “Health Care Law”

Abstract

Introduction. For the first time in the history of the Faculty of Health Science, Warsaw Medical University, the e-learning course in “Education in Health Care Law” was started in the academic year 2011/2012.

Aim. The aim of the study was to analyse the opinions of students on the presentation of the learning course in the form of an e-learning course.

Material and methods. A group of 156 Master’s degree students (39%) participated in the study: 84 second year full-time students and 72 first year part-time students, including 152 women. An anonymous questionnaire on Moodle e-learning platform was used as a research method: <https://docs.google.com/spreadsheet/viewform?formkey=dGpoU0puUk5Qak9xaUpnOEN2NTZNX3c6MQ>.

Results. Ninety eight percent (98%) of the students participated in an e-learning course for the first time and would be interested in this form of learning in the future (78%). Seventy percent (70%) of the study participants reported that the course improved the quality of teaching. Ninety one percent (91%) of the students admitted that the learning content was interesting, and 70% of the study participants reported that this form of teaching made them interested in the course and motivated them to broaden their knowledge. Among the most interesting modules were those concerning: patients’ rights and nursing organizations. During the e-learning course, 61% of the study participants devoted more time to learning compared to traditional courses. As little as 20 persons experienced technical difficulties when using Moodle platform.

Conclusions. Positive opinions on the e-learning course and its positive influence on the quality of teaching of this subject prevailed among the study group of students. Studies on opinions of students will be continued among a larger group of students, because the remarks of the students allow organizational improvement of the courses in compliance with their expectations, which may further improve the quality and attractiveness of online learning as well as its effectiveness.

Keywords: blended-learning, distance learning, quality of teaching, health care law.

INTRODUCTION

In compliance with the binding Educational Standards for nursing students, the course in law should be introduced during the Bachelor's degree programme amounting to 30 teaching hours [1]. The learning content concerning the course in law should include the following subject area: legal system, structure of acts, human rights, interpretation of law; law on health care settings; law on health insurance; Act on the Profession of Nurse and Midwife; regulations on professional autonomy; patients' rights; responsibility in medical professions – civil, criminal, labour, and professional; elements of labour law; training and professional development of nurses; domestic and foreign nursing organizations [1]. After completing the course, a student should achieve particular skills and competencies specified in the Standards: understanding, analysing and interpreting legal regulations concerning the profession of nurse; applying legal provisions in practice; differentiation of professional responsibility – both criminal and civil; understanding the functioning of the healthcare system; planning professional development.

At the major in Nursing, Faculty of Health Science, Warsaw Medical University (WMU), the "Education in Law" course is run during a Bachelor's degree programme during 30 class hours and also during a Master's degree programme as the "Education in Health Care Law" course at the first year of a part-time programme and the second year of a full-time programme during 35 class hours: 10 hours of seminars and 25 hours of lectures.

However, due to a very large number of hours of teaching classes offered during a Master's degree nursing programme, the lectures in "Education in Health Care Law" were conducted late in the afternoon, which did not favour effectiveness. Moreover, a vast majority of Master's degree students take on employment, often shift work, which additionally impedes effective studying.

Thus, in the academic year 2011/2012, for the first time in the history of the Faculty of Health Science, Warsaw Medical University, the e-learning course "Education in Health Care Law" was started within the class hours previously devoted to lectures in order to improve the quality of teaching law. Seminars did not undergo changes; an academic teacher ran them in a traditional form.

The e-learning course "Education in Health Care Law" was put on a free of charge Moodle e-learning platform: <http://www.nzd.moodle.wum.edu.pl/> and it included seven thematic modules: Introduction to law, Legal system of the Republic of Poland, Human rights, Children's rights, Introduction to medical law, Patient's rights, Nursing organizations.

Teaching-related materials used in the course included, among others, valid legislative acts with commentaries, links to reliable websites, films and radio programs, as well as passages from texts and books chosen by an academic teacher.

The course was compulsory for all students. The credit was awarded to students who passed five on-line tests that were uploaded on Moodle platform (one trial, one-minute time limit per one question) and prepared an essay on obeying patients' rights.

Being awarded a credit for the e-learning course "Education in Health Care Law" was not the only form of passing the whole subject, which required passing a written test involving both the learning content from the e-learning course and seminars.

AIM

The aim of the study was to analyse the opinions of nursing students on the presentation of the learning content of the "Health Care Law" course in the form of an e-learning course and compare the opinions of full-time and part-time students on this form of teaching.

MATERIAL AND METHODS

All the first and second-year full-time and part-time students of a Master's degree course in Nursing who attended the e-learning course "Health Care Law" in the academic year 2011/2012 were invited to take part in the study. The total number of students invited to participate in the study amounted to 391 persons (192 second-year full-time students and 199 first-year part-time students).

Finally, 156 first and second-years full-time and part-time students took part in the study: 84 second-year full-time students (Group 1) and 72 first-year part-time students (Group 2). The percentage of persons involved in the study accounted for 39% of the total. The study group comprised 152 women and 4 men. The mean age was 32.02 years of age (min.: 22, max.: 56, SD: 9.522). The difference between the groups of full-time and part-time students was not statistically significant in terms of age and gender ($p=NS$, full-time course: the mean age was 29.91 years of age; min.: 23; max.: 52, SD: 8.291, part-time course: the mean age was 34.75 years of age; min.: 22; max.: 56, SD: 10.404).

An anonymous questionnaire was uploaded on Moodle e-learning platform in the form of a link to an e-form: <https://docs.google.com/spreadsheets/viewform?formkey=dGpoU0puUk5Qak9xaUpnOEN2NTZNX3c6MQ>.

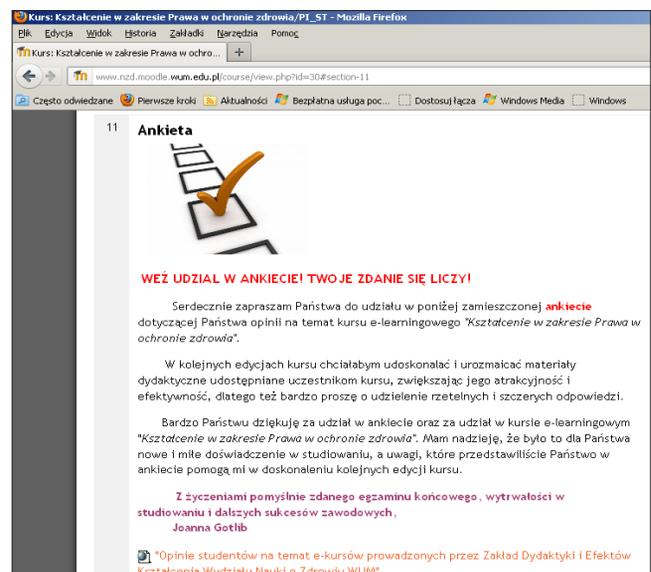


FIGURE 1. Link to the assessment questionnaire of the e-learning course "Health Care Law" on Moodle platform.

The participation in the survey was voluntary and was not connected with passing the course in "Health Care Law". The link to the questionnaire was uploaded at the end of the e-learning course below the teaching-related materials used by the students during the course. Only the students participating in the course had an access to the questionnaire.

The questionnaire consisted of six parts and comprised 29 questions: 21 close-ended and 8 open-ended questions. The questionnaire included questions on preferences of the students concerning a learning style, opinion on the course, and assessment of the teaching-related materials and on-line learning at Warsaw Medical University, as well as other remarks and personal data.

Figure 1 shows the "Questionnaire" module in the e-learning course, which contains the link to the course assessment questionnaire uploaded on Moodle platform.

StatSoft STATISTICA 9.0 program (licensed to Warsaw Medical University) was used for statistical analysis of the results. Due to the nature of the data (qualitative, non-parametric data without normal distribution – $p > 0.05$ – analysed with the use of the Shapiro-Wilk test); the non-parametric statistical Mann-Whitney U test was used for statistical analysis. The significance level was established at $p < 0.05$.

RESULTS

The e-learning course "Health Care Law" was the first one of this type for the vast majority of the students (98%) and they would also like to participate in such courses in the

future (76%). The majority of the students (70%) reported that the course improved the quality of teaching of the course "Health Care Law". According to 61% of the study participants, a student who takes part in an e-learning course devotes more time to studying compared to traditional classes. Twenty percent (20%) of the study participants experienced technical difficulties using Moodle platform. See Table 1 for detailed data (Table 1).

The majority of the students (91%) found the learning content interesting and it made them interested in the course and motivated them to broaden their knowledge (70%). Among the most interesting modules were those concerning Patients' rights and Nursing organizations.

The questionnaire included also an open-ended question and Table 3 presents negative and positive opinions of the students on the course.

I would like to sincerely thank the Doctor who conducted this course for the preparation, availability, and patience.

DISCUSSION

As many as 44 items of literature have been found in Polish literature (Polish Medical Bibliography – Polska Bibliografia Lekarska, records: teaching with the use of computers, distance teaching, all articles in the database). However, only six of them concerned the issue of on-line learning of students and they were mainly conference communications, which did not present the opinions of students on on-line learning [2-7]. The majority of the publications from Polish

TABLE 1. Link to the assessment questionnaire of the e-learning course "Health Care Law" on Moodle platform.

item no.	Question		The entire group (number of persons)	Group 1	Group 2	p
1	Was the course that you have just finished the first e-learning course you attended?	Yes	153	83	70	NS
		No	3	1	2	NS
2	Would you like to attend another e-courses offered at the Division of Teaching and Outcomes of Education, Faculty of Health Science, in the future?	Strongly yes/ Yes	120	68	52	NS
		Strongly no / No	25	10	15	NS
		No opinion	11	6	5	NS
3	Did the e-course, in your opinion, improve the quality of teaching as far as the subject is concerned?	Strongly yes/ Yes	113	66	47	NS
		Strongly no / No	26	9	17	NS
		No opinion	17	9	8	NS
4	Was the e-course you attended compliant with your previous expectations concerning online learning?	Strongly yes/ Yes	91	50	41	NS
		Strongly no / No	47	25	22	NS
		No opinion	18	9	9	NS
5	Did the e-course you attended meet your expectations?	Strongly yes/ Yes	110	60	50	NS
		Strongly no / No	33	15	18	NS
		No opinion	13	9	4	NS
6	Did you experience technical difficulties using Moodle platform?	Yes	32	14	18	NS
		No	124	70	54	0.05
7	What is your opinion: does a student participating in e-learning classes, compared to traditional classes:	devote more time to learning	96	53	43	NS
		devote less time to learning	24	11	13	NS
		devote the same amount of time to learning	28	15	13	NS
		I have no opinion on this matter.	8	5	3	NS

Group 1 – group of second year full-time students of a Bachelor's degree programme

Group 2 – group of first year part-time students of a Master's degree programme

p – significance level

NS – difference statistically insignificant

TABLE 2. Opinions of the study group of students on the teaching-related materials used in the e-learning course “Health Care Law”.

item no.	Question	The entire group	Group 1	Group 2	p	
1	Was the learning content presented in the course interesting?	Strongly yes/ Yes	142	50	92	0.05
		Strongly no / No	8	2	6	NS
		No opinion	6	1	5	NS
2	Did the learning content presented in the course make you interested in the course and did it motivate you to broaden your knowledge in this subject matter?	Strongly yes/ Yes	110	42	68	0.05
		Strongly no / No	38	10	28	NS
		No opinion	8	1	7	NS
3	Which module (topic) presented in the e-course you attended was most interesting? *	Introduction to law	12	6	6	NS
		Legal system of the Republic of Poland	43	21	22	NS
		Human rights	56	24	32	NS
		Children’s rights	58	24	34	NS
		Introduction to medical law	55	21	24	NS
		Patients’ rights.	95	47	48	NS
		Nursing organizations	102	62	40	NS
4	Which module (topic) presented in the e-course you attended was least interesting? *	Introduction to law	120	71	49	NS
		Legal system of the Republic of Poland	85	47	38	NS
		Human rights	48	23	25	NS
		Children’s rights	51	29	22	NS
		Introduction to medical law	56	20	36	NS
		Patients’ rights.	18	7	11	NS
		Nursing organizations	25	12	13	NS
5	Which form of teaching-related materials was most useful during learning? *	text passages (e.g. from books, articles)	126	77	49	NS
		web pages	121	57	64	NS
		films (e.g. from youtube.com)	140	71	69	NS
		radio programs	56	29	27	NS
6	Were the teaching-related materials coherent and logically ordered?	Strongly yes/ Yes	140	48	92	0.05
		Strongly no / No	9	4	5	NS
		No opinion	7	1	6	NS
7	Was the teaching content presented with the use of varied and attractive forms of transferring knowledge (e.g. diagrams, graphs, etc)?	Yes	139	47	92	0.05
		No	17	6	11	0.05
8	Did multimedia elements used in the e-course support the learning process and serve not only as its decoration?	Strongly yes/ Yes	119	41	78	0.05
		Strongly no / No	41	6	35	0.05
		No opinion	15	6	9	NS
9	How do you assess the quality of multimedia materials?	Very good	56	15	41	0.05
		Rather good	60	23	37	NS
		Satisfactory	31	13	18	NS
		Unsatisfactory	5	-	5	NS
		No opinion	4	2	2	NS
10	The level of usage of interactive elements in teaching-related materials was	Very good	59	18	41	NS
		Rather good	50	21	29	NS
		Satisfactory	28	10	18	NS
		Definitely too high	10	4	6	NS
		Definitely too low	4	-	4	NS
11	Did the e-course include information on the level of advancement of materials (e.g. were additional materials or materials for those particularly interested marked)?	No opinion	5	-	5	NS
		Yes	151	52	99	NS
		No	5	1	4	NS
12	How do you assess the quality of navigation?	Very good	66	24	42	NS
		Rather good	57	22	35	NS
		Satisfactory	20	5	15	NS
		Unsatisfactory	11	2	9	NS
		No opinion	2	-	2	NS

* – the answers do not sum up to 100 %, because it was a multiple-choice question

Group 1 – group of second year Bachelor’s degree students

Group 2 – group of first year Master’s degree students

p – significance level

TABLE 3. Opinions of the study group of students on the participation in the e-learning course “Health Care Law” included in the open-ended question of the questionnaire.

Negative opinions of students	Positive opinions of students
<ul style="list-style-type: none"> You didn't take into consideration a very important issue. Those who had decided to start a part-time course either work during the week or, like me, have a small kid at home so it is logical that they don't have much time and this course is very time-consuming. I would prefer a traditional lecture, this form of learning is too time-consuming Too little time to write a test Too many links to original websites, which are very robust The course is definitely too extensive I prefer traditional classes, I like listening to a lecturer There are definitely too many materials I use the mobile Internet and after watching a few films the speed of my Internet connection slowed down so much that it was impossible to browse the remaining materials Writing an essay is unnecessary. We are not in high school and we don't study humanities. Hunger for contact with such a great lecturer. I requires self-discipline, which sometimes is difficult to achieve Students should be informed that a part of classes will be conducted in this form before the beginning of the course Tests should be in Polish. I don't have an unlimited access to a computer and I'm not used to learning from the monitor so I had to print some of the materials. I like to sit comfortably and underline the most important information in colour. I also like a direct contact with a person, a lecturer. This was the first time I attended such a course, I appreciate that the Doctor put so much effort to prepare the course but I prefer traditional lectures interchangeably with this form of classes. 	<ul style="list-style-type: none"> I'm satisfied very much with this form of learning. This was the first time I attended such a course and I am positively surprised. A number of other courses could also be conducted in this form, e.g. psychology, sexology, or nephrology. Thank you. The course is very well prepared, there are many varied materials, Moodle platform works faultlessly. Good quality of the course, it motivates to learn. A great, innovative idea, the course deserves the best grade! If I had to choose between sitting on a lecture and e-learning course, I would choose the course. I hope that there will be more such courses in the future. A very good course which forces students not only to reproduce the knowledge but also to understand it. The course set quite high requirements. Information included in the modules certainly gave me a lot of knowledge and I appreciate it but meetings with the Doctor and commentaries on the topics covered during seminars were far more valuable for me (their interpretation by a professional and up-to-date explanation of any doubts and questions). I saved a lot of time thanks to the course. I could learn whenever I wanted and how I wanted. A great idea! Finally one didn't waste time on boring lectures which, in fact, nobody attends anyway. SUPER! I work on shifts and now I can learn whenever I want. I have the access to teaching-related materials and I don't have to worry that I won't manage to note something down. I wish luck in this pioneer undertaking. A very good form of classes. The materials are prepared, we don't have to look for it in libraries and bookstores, we know which part of the learning content is compulsory for the exam. I would like more courses to be conducted in the form of e-learning, because you can learn much more and you don't have to waste your time to commute to classes. I liked it very much but I have to admit that at the beginning I had problems with self-motivation and managed to motivate myself only when the deadlines were coming up. Maybe it would be good to set consecutive deadlines for writing a test e.g. one per week?! Instead of all at the same time? Maybe it would make it easier for students to learn systematically rather than at the eleventh hour. (It would certainly be helpful in my case). I would like to sincerely thank the Doctor who conducted this course for the preparation, availability, and patience.

literature are devoted to the computer support for traditional teaching of Medicine students without the use of the Internet, postgraduate training for health protection specialists, as well as education of patients, most often with different degrees of disability, that is a broadly defined telemedicine.

A number of items concerning on-line learning of Medicine students were found in the world literature (PubMed/MEDLINE, key words: blended-learning, e-learning, medical students) [8-17]. These publications concern particularly students in countries where the access to the Internet is common and online learning has a longer tradition (e.g. the US, the UK, France, New Zealand). Therefore, the comparison of their opinions with opinions of Polish students cannot be adequate [8-17]. Thus, the comparison was made only between the results of the present study and those of other authors who conduct studies on e-learning among Polish students of medical university-level schools.

The studies by Półjanowicz et al. concerning online learning at medical universities were the only ones conducted by Polish authors that were found in the world literature [18-20]. They present the author's experiences in

running blended-learning courses (traditional learning aided by online courses) at the Medical University of Białystok (UMB) in the following majors: Physiotherapy and Nursing [18-20]. UMB students, similarly to WMU students, used Moodle platform, which is one of the most popular free of charge e-learning platforms in Poland.

At Warsaw Medical University, online learning was started at the Division of Teaching and Outcomes of Education, Faculty of Health Science, WMU, in the winter semester of the academic year 2011/2012. The decision to commence e-learning courses was preceded by a survey conducted between May and June 2011. The survey concerned the access to a computer and to the Internet of WMU students as well as the willingness to participate in e-learning courses [21,22]. A group of 1528 WMU students (1228 women and 275 men) representing 14 majors participated in the survey. The vast majority of students (81%) had a computer exclusively at their personal disposal and 87% of students reported using the Internet a few times a day or being constantly online [22]. One hundred forty two third-year Bachelor's degree students participated in the study

by Półjanowicz: 59 Physiotherapy students and 83 Nursing students and his study results on the student usage of the Internet were similar: 78% of Nursing and Physiotherapy students reported everyday use of the Internet. The UMB students used the Internet to browse web pages (100%) and use e-mail (94%). More than half of the study participants reported that they download files from the Internet and do online shopping whereas approximately 40% of the students reported using electronic banking [18-20].

The vast majority of the WMU students (93%) reported that lectures are this form of classes, which could be preferably taught online. Due to the fact that the majority of the students reported their willingness to attend online courses and that they have the access to a computer and to the Internet, first online courses were started at Warsaw Medical University since the academic year 2011/2012.

Among the WMU students, the self-assessment of the management of basic Internet applications that are necessary for participation in e-learning courses was high. The students assessed their management skills concerning the MS Word at 5, a web browser (e.g. the Internet Explorer) at 4.95, and an e-mail enabled program at 4.46. The majority of the study participants were not interested in additional trainings in computer skills [22].

The UMB students also assessed their computer skills well (50%) or very well (19%) [20]. The high self-assessment of the WMU students concerning computer skills was confirmed as soon as after the first e-learning course, which was the first of this type for the vast majority of the study participants, since only 20 persons out of 156 reported difficulties with the use of Moodle platform.

The present analysis of the opinions of the Nursing students of WMU after attending the e-learning course confirmed previous interests of students in this type of learning, because as many as 76% of the study participants reported their willingness to attend online courses in the future. Similar results were obtained in the study by Półjanowicz [18-20]. The Physiotherapy students took part in the "Therapeutic massage" classes and the Nursing students attended the "Midwifery, gynaecology, and gynaecological nursing" classes. The students of both majors were divided into two subgroups. One subgroup participated in an e-learning course, whereas the other group (control) attended traditional seminars.

More than half of the students participating in the study by Półjanowicz reported that they enjoyed e-learning courses (75% of Physiotherapy and 54% of Nursing students, respectively) and they would like to attend such courses once again (50% and 51% of the students, respectively) [20]. All the students who took part in the e-learning course reported that they would like to continue learning on such courses, compared to 45% of students from the control group.

Półjanowicz also analysed the results of exams in both these subjects [18-20]. The results of the exam in "Midwifery, gynaecology, and gynaecological nursing" differed significantly ($p < 0.05$) between the students attending traditional and online classes. The students participating in the e-learning course achieved better grades and the best grade (4.5) was also received by a student who took part in the online course. The analysis of the results of the exam in

"Classical massage" gave similar results: the students participating in the online course achieved significantly better results ($p < 0.05$) compared to the students attending traditional classes. At the end of the course "Health Care Law" analysed in the present study there is also an exam which includes the learning content from both the e-learning course and seminars. A detailed analysis of the exam results (a comparison between answers to questions concerning the learning content presented during seminars and answers to questions related to the learning content presented during the e-learning course) will constitute the subject matter of another study.

The studies by Półjanowicz et al. concerning online learning at medical universities [18-20] were the only ones conducted by Polish authors that were found in the literature, which may mean that this form of learning has not yet been popularised at Polish medical university-level schools. The analysis of opinions of students on online learning conducted in the present study as well as in the studies by Półjanowicz and other foreign authors indicates, however, that this method may be effective also with regard to students of Medicine and Health Science [8-22]. Blended-learning as a method complementary to traditional teaching of e.g. pro-paedeutics of selected clinical courses is of particular importance in teaching this group of students [18-22].

It is worth highlighting the opinions of students concerning the positive influence of online learning on the quality of teaching. One hundred thirteen (113) students participating in the present study reported that the online course significantly improved the quality of teaching as far as the subject being taught was concerned. In their general assessment, the students indicated the unlimited availability of teaching-related materials collected in one place as well as the lack of necessity of taking notes in hurry and clear criteria concerning the amount of the learning content compulsory for the exam. The students may also associate the quality of teaching with the amount of time they have to spend on learning for particular classes and in the present study more than half of the students reported that they devoted more time to studying online compared to traditional classes. Półjanowicz did not directly analyse the opinions of students on the quality of teaching. However, the vast majority of the UMB students reported that an online course improves the attractiveness of learning (63% of Physiotherapy and 70% of Nursing students) and it broadens knowledge and improves skills of students (56% and 42% of students, respectively).

With increasing numbers of e-learning courses at medical universities, studies of opinions of students should be continued among larger groups of students of different majors. The remarks of the students allow organizational improvement of the courses in accordance with the expectations of students, which may further improve the quality and attractiveness of teaching.

Limitations of the study results

A small questionnaire return rate (39%) constitutes a significant limitation of the study results. The authors had decided that the participation in the survey on course evaluation shall be voluntary, which caused the small questionnaire return rate and may also cause that the opinions presented in

the study are extremely positive or negative. In the present study, the vast majority of opinions on the course "Health Care Law" were positive. The present results reveal that for the majority of students it was the first online course and it might have been positively assessed by the students due to the very fact that this attractive form of teaching is new and hitherto unseen at WMU. Moreover, the students did not have an opportunity to compare the "Health Care Law" course with any other e-learning courses.

Further directions of studies

Studies on opinions of students on e-learning courses will be continued along with the increase in the number of e-learning courses offered by the Division of Teaching and Outcomes of Education, Faculty of Health Science, Medical University of Warsaw. Such studies help to improve these courses from the organizational viewpoint in compliance with expectations of students, which may further improve the quality and attractiveness of on-line learning as well as its effectiveness.

CONCLUSIONS

1. The access to a computer and to the Internet as well as IT literacy do not constitute an obstacle in effective participation of the students in online courses.
2. Online learning gives benefits to both full-time and part-time students since it allows access to teaching-related materials at any time and place, which is of particular importance to Master's degree students whose vast majority take on employment (often shift work).
3. The e-learning course improved the quality of teaching in the study group, due to, among others, the change of teaching method from an expository to activity method and the fact that the students devoted more time to learning compared to traditional classes.
4. Positive opinions on the e-learning course "Health Care Law" and its positive influence on the quality of teaching of this subject prevailed among the study group of students. Therefore, this form of teaching, organizationally enhanced, will be continued in the subsequent years.
5. Studies on opinions of students will be continued among a larger group of students, because the remarks of the students allow organizational improvement of the courses in compliance with the expectations of students, which may further improve the quality and attractiveness of online learning as well as its effectiveness.

REFERENCES

1. Dokumenty Rady Głównej Szkolnictwa Wyższego. Standardy kształcenia dla kierunku studiów Pielęgniarstwo. Dostępny pod adresem: <http://www.rgsw.edu.pl/files/active/0/pielęgniarstwo20070210.pdf> [19.01.2012 r.]
2. Michowska M. E-learning i jego wykorzystanie w nauczaniu etyki. In: Nauczanie etyki w uczelniach medycznych – Gdańsk; 2007. p.169-73.
3. Radon K, Kolb S, Reichert J, et al. Case-based e-learning in occupational medicine – the NetWoRM project in Germany. *Ann Agric Environ Med.* 2006;13(1):93-8.
4. Hippe ZS, Paszczyński S. Zdalne nauczanie i zdalne uczenie się w medycynie. *Telemedycyna.* 2001:5-9.

5. Brodziak A, Piotrowska E. Zdalne wspomaganie nauczania poprzez Internet – nowe narzędzie nauczyciela akademickiego – doświadczenia własne. *Ann Acad Me Siles.* 2001;48/49:45-51.
6. Kowalewska A. Możliwości wykorzystania "E-learningu" w kształceniu studentów w zakresie edukacji zdrowotnej. *Rocz Państ Zakł Hig.* 2006;(suppl.57):29-33.
7. Marciniak R, Matysiak K, Drews M, Marciniak Ł. *Internet w nauczaniu chirurgii.* Materiały zjazdowe V Konferencji Internetu Medycznego. Poznań; 2000. p.71-2.
8. Wilkinson A, While AE, Roberts J. Measurement of information and communication technology experience and attitudes to e-learning of students in the healthcare professions: integrative review. *J Adv Nurs.* 2009;65(4):755-72.
9. Potomkova J, Mihal V, Cihalik C. Web-based instruction and its impact on the learning activity of medical students: a review. *Biomed Pap Med Fac Univ Palacky Olomouc Czech Repub.* 2006;150(2):357-61.
10. Sung YH, Kwon IG, Ryu E. Blended learning on medication administration for new nurses: Integration of e-learning and face-to-face instruction in the classroom. *Nurse Educ Today.* 2008;28:943-52.
11. Sit J, Chung J, Chow M, Wong T. Experiences of online learning: students' perspective. *Nurse Educ Today.* 2005;25:140-7.
12. Ruiz JG, Candler A, Teasdale TA. Peer reviewing e-learning: opportunities, challenges and solutions. *Acad Med.* 2007;82(5):505-7.
13. Smart KL, Cappel JJ. Students' perceptions of online learning: a comparative Study. *J Info Tech Educ.* 2006;5:201-19.
14. Kariuki J, Fourie CH. The myths about e-learning in higher education. *Brit J Educ Technol.* 2010; 41(2):199-212.
15. Nikos M, Schitteck M, Attström R, Lyon HC. Distance learning in academic health education. A literature review. *Eur J Dent Educ.* 2001;5:67-76.
16. Cook DA, Levinson AJ, Garside S, et al. Internet-based learning in the health professions a meta-analysis. *JAMA.* 2008;10:1181-96.
17. Guri-Rosenblit S. Distance education' and 'e-learning': Not the same thing. *Higher Educ.* 2005;49:467-93.
18. Póljanowicz W, Latosiewicz R. The effectiveness of e-learning in the context of selected medical subjects. *Studies in Logic, Grammar and Rhetoric.* 2010;35:22.
19. Póljanowicz W, Latosiewicz R, Niewiński A, Milewski R. E-learning in students education in Medical University of Białystok, Poland. *Bio-Algorithms and Med-Systems.* 2009;9(5):111-5.
20. Póljanowicz W, Latosiewicz R, Kulesza-Bronczyk B, et al. Comparative analysis of e-learning and traditional teaching methods in the fields of nursing and physiotherapy in the Medical University of Białystok. *Prog Health Sci.* 2011;1:1.
21. Białoszewski D, Kasperska K, Gotlib J. Tradycja i/czy nowoczesność? Nauczanie na odległość wyzwaniem dla kształcenia studentów kierunków medycznych. *Medycyna, Dydaktyka, Wychowanie.* 2011;2:36-9.
22. Gotlib J, Białoszewski D, Mosiołek A, Dąbrowski F. Opinie studentów i nauczycieli akademickich kierunków medycznych na temat kształcenia przez Internet na przykładzie Warszawskiego Uniwersytetu Medycznego. *Badanie pilotażowe. Zdr Publ.* 2012;121(1):13-9.

Informacje o Autorce

Dr n. o zdr. JOANNA GOTLIB – adiunkt, Zakład Dydaktyki i Efektów Kształcenia, Wydział Nauki o Zdrowiu, Warszawski Uniwersytet Medyczny.

Adres do korespondencji

Dr n. o zdr. Joanna Gotlib
Zakład Dydaktyki i Efektów Kształcenia, Wydział Nauki o Zdrowiu,
Warszawski Uniwersytet Medyczny
ul. Żwirki i Wigury 61, 02-091 Warszawa
tel. (22) 57 20 490, fax: (22) 57 20 491
E-mail: joanna.gotlib@wum.edu.pl