

REPORT ON THE TESTING PHASE OF ICU'S ONLINE COURSE AMONG NURSING CARE PROVIDERS

EUROPEAN PROJECT

MULTICULTURAL CARE IN EUROPEAN INTENSIVE CARE UNITS



Erasmus+

Report prepared by:

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Multicultural Care in European Intensive Care Units

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EUROPEAN FEDERATION OF CRITICAL CARE NURSING ASSOCIATION

In EfCCNa, European federation of Critical Care Nursing association 46 nursing care providers, employed in intensive care units, were invited to participate in the self-training program through an online course, which was implemented via the platform MICE-ICU. The online course was carried out in the period from 11 April 2018 to 15 June 2018, and was successfully completed by 29 (63 %) of the participating nursing care providers.

An evaluation questionnaire to assess the satisfaction with the online course and its contents was forwarded via e-mail to the nursing care providers, who had completed the online course. The evaluation questionnaire was completed by 15 (51.7 %) out of 29 participating Nursing Care providers. The level of agreement with the given statements was by the participants evaluated on a 5-point Likert scale.

Table 1: Satisfaction of the participants of the online course

Item	5	4	3	2	1	AV
I felt comfortable using the MICE Intercultural	1	10	4	0	0	3.80
Nursing Care on ICU's Online Course.	(6.7 %)	(66.6 %)	(26.7 %)			
It was easy for me to learn how to use the Online	5	5	4	1	0	3.93
Course.	(33.3 %)	(33.3 %)	(26.7 %)	(6.7 %)		
The content of the Online Course is well structured.	0	9	5	0	1	3.46
		(60.0 %)	(33.3 %)		(6.7 %)	
The content of the Online Course is comprehensive	5	4	3	3	0	3.60
and appropriate to my professional needs.	(33.3 %)	(26.7 %)	(20.0 %)	(20.0 %)		
I found the Online Course intuitive to use.	5	3	4	3	0	3.66
	(33.3 %)	(20.0 %)	(26.7 %)	(20.0 %)		
The Online Course works consistently and well	5	5	4	1		3,93
	(33,3%)	(33,3%)	(26,6%)	(6,6%)		
The graphical organization of information on the	0	8	5	2	0	3.40
screens is clear enough.		(53.3 %)	(33.3 %)	(13.4 %)		
The interface of the Online Course is user friendly.	2	5	5	3	0	3.40
	(13.4 %)	(33.3 %)	(33.3 %)	(20.0 %)		
It was easy for me to navigate through the Online	3	3	5	2	2	3.20
Course.	(20.0 %)	(20.0 %)	(33.3 %)	(13.4 %)	(13.4 %)	

Legend: 5 – strongly agree, 4 – agree, 3 – average, 2 – disagree, 1 – strongly disagree, AV – average value.

From the Table 1 it can be seen that the of participants were satisfied with the online course, as they evaluated all of the statements with an average rating of more than 3.6, which means that they agree with the statements. In average there was an equal distribution between strongly agreed, agreed and

average agreed. But there was also discrepancy within the participants group as a couple of the testers disagreed with the statements in all questions.

The Online course intuitive average score was more than 3.4 and the testers found the Online Course was consistently and stable. When it comes to navigation of the course there was a wide range of the participants' opinion. 74 % of them agreed, but almost a third 26.6 % disagreed with the statement. As a follow-up, we asked the participants an open question, with which we wanted to establish whether they have discovered any errors and deficiencies during the use of the online course. The answers were as follows:

- Testers (5) commented on missing links, something we adjusted during the test period. "There were times when I could not open the referred readings".
- One comment was about the correct answers of the questionnaire. "Brisbane declaration on cultural sensitive care is referring to education as well, but if you click education, it is marked as error".
- A few (4) testers also commented about miss spellings in English and grammar mistakes. "I've found some minor linguistic errors, but in spite of them; all the written sentences were understandable form of English".
- Some (4) testers wrote they found no mistakes. "I found no errors".

- "Maybe a focus on specialties in the care with critically ill children could also be set".
- "The third Module".
- "All modules were ok".
- "Every one".
- "I think, Asian and especially Chinese and Korean cultures are most unknown to me. So maybe, it would be nice to learn to know more about these cultures and how to give the best nursing care to the patients from these culture".
- "All of them".
- "The length (duration) of the course took a lot longer than I had anticipated".
- "In my opinion, it will be difficult for the nurses from non-English speaking background, with basic English language knowledge, to follow the course".
- "Think that the different sections need to be visually more divided on the right side of the screen (where you click your way forward)".
- "It is individual, depends on where you work, what kind of patients and situations".
- "It would really have been a big help if theory and text could have been read out loud".

Table 2: The benefits of the knowledge acquired on the online course for further work with intercultural patients

Item	5	4	3	2	1	ΑV
Improve your vocational competences.	3	5	6	1	0	3.66
	(20.0 %)	(33.3 %)	(40.0 %)	(6.7 %)		
Improve your cultural awareness.	7	8	0	0	0	4.46
	(46.7 %)	(53.3 %				
Improve your intercultural knowledge.	7	7	1	0	0	4.40
	(46.7 %)	(46.7 %)	(6.7 %)			
Improve your chances of mobility to different countries	4	7	4	0	0	4.00
and cultures.	(26.7 %)	(46.7 %)	(26,6 %)			
Improve your information and Communication	4	6	5	0	0	3.93
Technology (ICT) skills.	(26.7 %)	(40.0 %)	(33.3 %)			
Overall, I am satisfied with the MICE Intercultural	6	6	2	1	0	4.13
Nursing Care on ICU's Online Course	(40.0 %)	(40.0 %)	(13.3 %)	(6.7 %)		
I will be happy to recommend it to other nurses in order	6	6	1	2	0	4.06
to improve their professional skills.	(40.0 %)	(40.0 %)	(6.7 %)	(13,3 %)		

Legend: 5 - strongly agree, 4 - agree, 3 - average, 2 - disagree, 1 - strongly disagree, AV - average value.

From the Table 2 it can be seen, that the contesters agreed or strongly agreed (AV > 3.5) that this course improved their vocational competencies, intercultural knowledge and awareness. They agreed the course improved their Information and Communication Technical (ICT) skills (AV = 3.93). They were overall satisfied with the MICE-ICU Online course (AV = 4.13) and would highly recommend it to other nurses (AV = 4.06).

The analyse shows that the European Nursing Care providers who participated and finished the course were positive the course increased their knowledge of Multi-Cultural competences (67 %). They showed motivation and interest for the long distance training via ICT. A majority of the invited Intensive Care nurses participated and completed the test.

Report prepared by: Julie Benbenishty, Eva Barkestad



CZECH REPUBLIC

In Czech Republic, **39 nursing care providers**, employed in intensive care units, were invited to participate in the self-training program through an online course, which was implemented via the platform MICE-ICU. The online course was carried out in the period from **30 April 2018 to 15 June 2018**, and was successfully completed by 29 (74.35 %) of the participating nursing care providers.

An evaluation questionnaire to assess the satisfaction with the online course and its contents was forwarded via e-mail to the nursing care providers, who had completed the online course. The evaluation questionnaire was completed by 12 (41.38 %) out of 29 participating nursing care providers. The level of agreement with the given statements was by the participants evaluated on a 5-point Likert scale.

Table 3: Satisfaction of the participants of the online course

Item	5	4	3	2	1	ΑV
I felt comfortable using the MICE Intercultural Nursing	7	4	1	0	0	4.50
Care on ICU's Online Course.	(58.3%)	(33.3 %)	(8.3 %)			
It was easy for me to learn how to use the Online	7	4	0	1	0	4.41
Course.	(58.3%)	(33.3 %)		(8.3 %)		
The content of the Online Course is well structured.	3	5	2	2	0	3.75
	(25.0 %)	(41.7 %)	(16.7 %)	(16.7 %)		
The content of the Online Course is comprehensive	5	3	2	1	1	3.83
and appropriate to my professional needs.	(41.7 %)	(25.0 %)	(16.7 %)	(8.3 %)	(8.3 %)	
I found the Online Course intuitive to use.	5	3	3	1	0	4.00
	(41.7 %)	(25.0 %)	(25.0 %)	(8.3 %)		
The Online Course works consistently and well	7	2	1	1	1	4.08
	(58.3%)	(16.7 %)	(8.3 %)	(8.3 %)	(8.3 %)	
The graphical organization of information on the	7	3	0	1	1	4.16
screens is clear enough.	(58.3%)	(25.0 %)		(8.3 %)	(8.3 %)	
The interface of the Online Course is user friendly.	5	3	3	0	1	3.91
	(41.7 %)	(25.0 %)	(25.0 %)		(8.3 %)	
It was easy for me to navigate through the Online	5	4	1	2	0	4.00
Course.	(41.7 %)	(33.3 %)	(8.3 %)	(16.7 %)		

Legend: 5 – strongly agree, 4 – agree, 3 – average, 2 – disagree, 1 – strongly disagree, AV – average value.

From the Table 3 it can be seen that the participants were satisfied with the online course, as they evaluated 6 of the statements with an average rating of 4 or more than 4. Only 3 statements were evaluated less than 4. Rating 4 means that participants agree with the statements. The participants felt

comfortable to use on-line course (AV = 4.5), found easy to learn how to use it (AV = 4.41). The participants see the using of on-line course as intuitive and easy to navigate through it (AV = 4.0). But user-friendly rating is borderline (AV = 3.91). Same as statements about well-structured content (AV = 3.75) and suitability and comprehensiveness for ICU nurses (AV = 3.83). On-line course works well (AV = 4.08) according to participants and the graphical organization of information on the screens is clear enough (AV = 4.16).

As a follow-up, we asked the participants an open question, with which we wanted to establish whether they have discovered any errors and deficiencies during the use of the online course. The answers were as follows:

- Misspellings and grammar mistakes.
- It would be appreciated if there is icon "NEXT" in the end of every module.
- Module II Hygiene procedures Task 3 the possible answers are not clear: A bath, B both (both what?), C nothing (nothing what?).
- Module III chapter 4 there are two quizzes, if trying to open first quiz it is not possible, participant is sending back to course ("no tasks were uploaded" is written).
- It is not clear that participant must press the square button in the end to finish the module.

Further on, we asked the participants of the online course which of the educational modules would have to be developed further, which aspects would in their opinion need to be improved. We were given the following answers:

- It would be important to develop Module II and III.
- It would be appreciated if Module II is divided into chapters by every single culture (e.g. Judaism, Islam,...).
- It would be important to develop Physical examination, Meaning of touch.
- It would be appreciated to develop more practical part model situation and case studies.

Table 4: The benefits of the knowledge acquired on the online course for further work with intercultural patients

Item	5	4	3	2	1	AV
Improve your vocational competences.	4	1	4	2	1	3.41
	(33.3 %)	(8.3 %)	(33.3 %)	(16.7 %)	(8.3 %)	
Improve your cultural awareness.	7	3	0	1	1	4.17
	(58.3 %)	(25.0 %)		(8.3 %)	(8.3 %)	
Improve your intercultural knowledge.	6	4	0	1	1	4.08
	(50.0 %)	(33.3 %)		(8.3 %)	(8.3 %)	
Improve your chances of mobility to different countries	2	5	1	4	0	3.42
and cultures.	(16.7 %)	(41.7 %)	(8.3 %)	(33.3 %)		
Improve your information and Communication	2	4	4	1	1	3.42
Technology (ICT) skills.	(16.7 %)	(33.3 %)	(33.3 %)	(8.3 %)	(8.3 %)	
Overall, I am satisfied with the MICE Intercultural	4	4	2	2	0	3.83
Nursing Care on ICU's Online Course	(33.3 %)	(33.3 %)	(16.7 %)	(16.7 %)		
I will be happy to recommend it to other nurses in order	4	4	2	2	0	3.83
to improve their professional skills.	(33.3 %)	(33.3 %)	(16.7 %)	(16.7 %)		

From the Table 4 it can be seen, that all of the participants agree, that the on-line course improved their cultural awareness (AV = 4.17) and knowledge (AV = 4.08). The participants evaluated improvement of ICT skills (AV = 3.42), chances of mobility to different countries and cultures (AV = 3.42) and vocational competences (AV = 3.41) as average. Satisfaction with on-line course and willingness to recommend it to other ICU nurses was borderline (AV = 3.83).

The evaluation of on-line course does not show a coherent picture of opinion of participants on on-line course. The evaluation form completed just 12 participants of 29 nurses who successfully finished the course. It is less than half. Even though the participants agree with 8 statements from 16 statements (AV 4 or more). 5 statements were borderline and 3 statements were rated as average. The participants pointed also few weakness of on-line course and recommended some changes.

Report prepared by: Ivana Nytra, Darja Jarošová, Renáta Zeleníková



POLAND

In Poland, **60 ICU nurses**, were invited to participate in the self-training program through an online course, which was implemented via the platform MICE-ICU. The online course was opened for invited users in the period from **11 April 2018 to 9 August 2018**, and was successfully completed by **32 (53.33 %)** of the participating nursing care providers.

Link to the evaluation questionnaire to assess the satisfaction with the online course and its contents was forwarded via e-mail to the nursing care providers, who had completed the online course. The evaluation questionnaire was completed by 26 (81.25 %) out of 32 participating nursing care providers. The level of agreement with the given statements was by the participants evaluated on a 5-point Likert scale.

Table 5: Satisfaction of the participants of the online course

Item	5	4	3	2	1	ΑV
I felt comfortable using the MICE Intercultural Nursing	17	9	0	0	0	4.65
Care on ICU's Online Course.	(65.4 %)	(34.6 %)				
It was easy for me to learn how to use the Online	14	8	4	0	0	4.38
Course.	(53.8 %)	(30.8 %)	(15.4 %)			
The content of the Online Course is well structured.	18	7	1	0	0	4.65
	(69.2 %)	(26.9 %)	(3.8 %)			
The content of the Online Course is comprehensive	17	9	0	0	0	4.65
and appropriate to my professional needs.	(65.4 %)	(34.6 %)				
I found the Online Course intuitive to use.	14	10	1	1	0	4.42
	(53.8 %)	(38.5 %)	(3.8 %)	(3.8 %)		
The Online Course works consistently and well	18	7	0	1	0	4.61
	(69.2 %)	(26.9 %)		(3.8 %)		
The graphical organization of information on the	16	8	1	0	1	4.65
screens is clear enough.	(61.5 %)	(30.8 %)	(3.8 %)	(0 %)	(3.8 %)	
The interface of the Online Course is user friendly.	15	8	2	1	0	4.42
	(57.7 %)	(30.8 %)	(7.7 %)	(3.8 %)		
It was easy for me to navigate through the Online	13	9	3	1	0	4.30
Course.	(50 %)	(34.6 %)	(11.5 %)	(3.8 %)		

Legend: 5 – strongly agree, 4 – agree, 3 – average, 2 – disagree, 1 – strongly disagree, AV – average value.

From the Table 5 it can be seen that the participants were highly satisfied with the online course, as they evaluated all of the statements with an average rating of more than 4, which means that they agree with the statements. The participants agree, that they felt comfortable using the MICE Intercultural

Nursing Care on ICU's Online Course (AV = 4.65), that the content of the Online Course is well structured (AV = 4.65) and the content of the Online Course is comprehensive and appropriate to their professional needs (AV = 4.65). The participants also agreed with the statements that the graphical organization of information on the screens is clear enough (AV = 4.65), and that the Online Course works consistently and well (AV = 4.61).

As a follow-up, we asked the participants an open question, with which we wanted to establish whether they have discovered any errors and deficiencies during the use of the online course. The answers were as follows:

- 23 nurses answered that they did not notice any problems;
- 1 person underlined problem regarding MODULE III pain management: in Polish reality nurse cannot give the patient Fentanyl independently;
- 1 person indicated problem of platform: that it would be much better if there was possibility to highlight where course participant finished, in order to know from which point to start after brake. Additionally, all course could be shorter, as the same issue was sometimes repeated under different topics;
- 1 person indicated that at the end of each page it should be ikon 'next'. Additionally, that person
 was hoping that the course would be a combination of short films with reading materials, etc.
 (e.g. courses on the Curser platform), which would significantly increase the attractiveness of
 the course. Information in "Information about ethnic groups in Poland, the Czech Republic and
 Slovenia" could be a bit more current than from 2002; also language mistakes were noticed.

- It would be important to develop Module III 4 nurses. This module should be expanded contents-wise.
- I have no opinion 8 nurses, or: course was well prepared 6 nurses;
- I have not much experience in this topic, I would not change anything 1 person;
- I would add information regarding paediatric patient 1 person;
- Blood transfusion 1 person;
- Module II should be expanded 3 nurses;
- I would expected more practical information organised in tables, which could be printed 1 nurse;
- I missed infographics which gestures are considered offensive and which are not in what culture. Informing about the differences in treatment (e.g. black people need more analgesia) is also quite an interesting topic, which not included during nursing studies 1 nurse.

Table 6: The benefits of the knowledge acquired on the online course for further work with intercultural patients

Item	5	4	3	2	1	AV
Improve your vocational competences.	19	5	2	0	0	4.65
	(73.1 %)	(19.2 %)	(7.7 %)			
Improve your cultural awareness.	22	4	0	0	0	4.84
	(84.6 %)	(15.4 %)				
Improve your intercultural knowledge.	21	5	0	0	0	4.80
	(80.8 %)	(19.2 %)				
Improve your chances of mobility to different countries	12	10	4	0	0	4.30
and cultures.	(46.2 %)	(38.5 %)	(15.4 %)			
Improve your information and Communication	12	10	3	1	0	4.26
Technology (ICT) skills.	(46.2 %)	(38.5 %)	(11.5 %)	(3.8 %)		
Overall, I am satisfied with the MICE Intercultural	18	7	1	0	0	4.65
Nursing Care on ICU's Online Course	(69.2 %)	(26.9 %)	(3.8 %)			
I will be happy to recommend it to other nurses in order	19	6	1	0	0	4.69
to improve their professional skills.	(73.1 %)	(23.1 %)	(3.8 %)			

Legend: 5 – strongly agree, 4 – agree, 3 – average, 2 – disagree, 1 – strongly disagree, AV – average value.

From the Table 6 it can be seen, that all of the participants agree, that the acquired knowledge will help them with their work in the clinical environment. The participants estimate, that their intercultural knowledge has improved (AV = 4.80), their cultural awareness has improved as well (PV = 4.84), and their vocational competences (AV = 4.65). The participants were highly satisfied with the online course MICE-ICU (AV = 4.65), and therefore they would be happy to recommend it to the other nursing care providers in order to improve their professional skills (AV = 4.69).

From the analysis of the evaluation of the MICE-ICU online course we can conclude, that the ICU nurses in Poland positively evaluated the online course as a form of postgraduate education.

Report prepared by:

Beata Dobrowolska, Dorota Ozga, Aleksandra Gutysz-Wojnicka



SLOVENIA

In Slovenia, **39 nursing care providers**, employed in intensive care units, were invited to participate in the self-training program through an online course, which was implemented via the platform MICE-ICU. The online course was carried out in the period from **11 April 2018 to 15 June 2018**, and was successfully completed by 34 (87.2 %) of the participating nursing care providers.

An evaluation questionnaire to assess the satisfaction with the online course and its contents was forwarded via e-mail to the nursing care providers, who had completed the online course. The evaluation questionnaire was completed by 30 (88.2 %) out of 34 participating nursing care providers. The level of agreement with the given statements was by the participants evaluated on a 5-point Likert scale.

Table 7: Satisfaction of the participants of the online course

Item	5	4	3	2	1	ΑV
I felt comfortable using the MICE Intercultural Nursing	13	13	3	1	0	4.27
Care on ICU's Online Course.	(43.3 %)	(43.3 %)	(10.0 %)	(3.3 %)		
It was easy for me to learn how to use the Online	16	11	3	0	0	4.43
Course.	(53.3 %)	(36.7 %)	(10.0 %)			
The content of the Online Course is well structured.	13	12	3	2	0	4.20
	(43.3 %)	(40.0 %)	(10.0%)	(6.7 %)		
The content of the Online Course is comprehensive	13	13	4	0	0	4.30
and appropriate to my professional needs.	(43.3 %)	(43.3 %)	(13.3 %)			
I found the Online Course intuitive to use.	17	9	3	1	0	4.40
	(56.7 %)	(30.0 %)	(10.0 %)	(3.3 %)		
The Online Course works consistently and well	18	7	2	3	0	4.33
	(60.0 %)	(23.3 %)	(6.7 %)	(10.0 %)		
The graphical organization of information on the	16	10	4	0	0	4.40
screens is clear enough.	(53.3 %)	(33.3 %)	(13.3 %)			
The interface of the Online Course is user friendly.	19	7	2	2	0	4.43
	(63.3 %)	(23.3 %)	(6.7 %)	(6.7 %)		
It was easy for me to navigate through the Online	17	12	1	0	0	4.53
Course.	(56.7 %)	(40.0 %)	(3.3 %)			

Legend: 5 – strongly agree, 4 – agree, 3 – average, 2 – disagree, 1 – strongly disagree, AV – average value.

From the Table 7 it can be seen that the participants were highly satisfied with the online course, as they evaluated all of the statements with an average rating of more than 4, which means that they agree with the statements. The participants agree, that it was easy for them to navigate through the Online Course (AV = 4.53), that the use of the online course was simple (AV = 4.43) and that logging on/logging off was user friendly (AV = 4.43). The participants also agreed with the statements that the

contents of the online course were well structured (AV = 4.20), and also comprehensive and appropriate to their professional needs (AV = 4.30). The participants felt comfortable using the online course (AV = 4.27).

As a follow-up, we asked the participants an open question, with which we wanted to establish whether they have discovered any errors and deficiencies during the use of the online course. The answers were as follows:

- The problems with logging on to the platform system (1 answer).
- After completing the test of knowledge, the test was not automatically marked as completed.
- In one of the thematic sets, the instructions followed the test, which influenced taking the test, as the questions were related to the given instructions.
- Due to the problems with reading the text online (the size of the letters), I printed some of the text on paper (the print function or the possibility to enlarge the text should be added).
- Different cultures could be presented in more detail.
- Topic on Jehovah's witnesses...taking into consideration the non-use of adding blood and blood products.
- Some contents are too general; I expected more specific knowledge of intensive therapy.
- The opening and closing tests could be taken several times, which does not make any sense.
- After reviewing certain contents, these were not automatically marked as read.
- Grammatical mistakes in the text and in citations.
- Mismatched citations in images.

- It would be important to develop Module III (n = 7). This module should be expanded contents-wise.
- It would be important to develop Module II (n = 2).
- It would be important to develop Module I (n = 3).
- The first module is less interesting, as it contains a lot of history and theories. The second module is quite extensive and one gets overwhelmed with all the information. The third module is most suitable to my field of work.
- To improve the contents referring to interpersonal relationships, conflicts, communication.
- To improve the set that refers to brain death.
- To focus on the subjects that relate to the understanding of the attitudes of different cultures towards the dying patients, how to deal with the situation.
- To pay more attention to the contents, pertaining to pain (to relieve the pain), organ donation.
- To pay attention to the contents pertaining to the particularities of the intercultural nursing care in ICU.

Table 8: The benefits of the knowledge acquired on the online course for further work with intercultural patients

ltem	5	4	3	2	1	AV
Improve your vocational competences.	10	13	6	1	0	4.07
	(33.3 %)	(43.3 %)	(20.0 %)	(3.3 %)		
Improve your cultural awareness.	14	12	4	0	0	4.33
	(46.7 %)	(40.0 %)	(13.3 %)			
Improve your intercultural knowledge.	17	13	0	0	0	4.57
	(56.7 %)	(43.3 %)				
Improve your chances of mobility to different countries	11	12	5	1	1	4.03
and cultures.	(36.7 %)	(40.0 %)	(16.7 %)	(3.3 %)	(3.3 %)	
Improve your information and Communication	11	14	5	0	0	4.20
Technology (ICT) skills.	(36.7 %)	(46.7 %)	(16.7 %)			
Overall, I am satisfied with the MICE Intercultural	15	14	1	0	0	4.47
Nursing Care on ICU's Online Course	(50.0 %)	(46.7 %)	3.3 %)			
I will be happy to recommend it to other nurses in order	17	13	0	0	0	4.57
to improve their professional skills.	(56.7 %)	(43.3 %)				

Legend: 5 – strongly agree, 4 – agree, 3 – average, 2 – disagree, 1 – strongly disagree, AV – average value.

From the Table 8 it can be seen, that all of the participants agree, that the acquired knowledge will help them with their work in the clinical environment. The participants estimate, that their intercultural knowledge has improved (AV = 4.57), their cultural awareness has improved as well (PV = 4.33), as have their information and Communication Technology (ICT) skills (AV = 4.20) and their vocational competences (AV = 4.07). The participants were highly satisfied with the online course MICE-ICU (AV = 4.47), and therefore they would be happy to recommend it to the other nursing care providers in order to improve their professional skills (AV = 4.57).

From the analysis of the evaluation of the MICE-ICU online course we can establish, that the nursing care providers in ICUs in Slovenian area have positively accepted the online course as a form of an upgrade of knowledge in frame of lifelong learning. Throughout the implementation of the course we have detected no specific derogations, which points at the high percentage of the participants who have successfully completed the online course (87.2 %). The nursing care providers in ICUs have shown motivation and interest for the long distance training via Information and Communication Technology (ICT).

The online course MICE-ICU was presented to the management of the Nurses and Midwives Association of Slovenia, which took a positive stand towards life-long education and training of nursing care providers via an online platform. The online course is currently undergoing the licensing procedure.

Report prepared by:

Boris Miha Kaučič, Bojana Filej, Barbara Smrke

SUMMARY OF THE EVALUATION REPORT

In total, **184 nursing care providers**, employed in intensive care units, were invited to participate in the self-training program through an online course, which was implemented via the platform MICE-ICU. The online course was successfully completed by **124 (67 %) of the participating nursing care providers**.

The evaluation questionnaire on the satisfaction with the online course and its contents was forwarded via e-mail to the nursing care providers, who had completed the online course. The evaluation questionnaire was completed by **83 (66.9 %)** out of the 124 participating nursing care providers. The level of agreement with the given statements was by the participants evaluated on a 5-point Likert scale.

Table 9: Satisfaction of the participants of the online course / comparison between countries

Item	EfCCNa	CZECH	POLAND	SLOVENIA
		REPUBLIC		
	n=15	n=12	n=26	n=30
	AV	AV	AV	AV
I felt comfortable using the MICE Intercultural Nursing	3.80	4.50	4.65	4.27
Care on ICU's Online Course.				
It was easy for me to learn how to use the Online	3.93	4.41	4.38	4.43
Course.				
The content of the Online Course is well structured.	3.46	3.75	4.65	4.20
The content of the Online Course is comprehensive	3.60	3.83	4.65	4.30
and appropriate to my professional needs.				
I found the Online Course intuitive to use.	3.66	4.00	4.42	4.40
The Online Course works consistently and well	3.93	4.08	4.61	4.33
The graphical organization of information on the	3.40	4.16	4.65	4.40
screens is clear enough.				
The interface of the Online Course is user friendly.	3.40	3.91	4.42	4.43
It was easy for me to navigate through the Online	3.20	4.00	4.30	4.53
Course.				
AV General satisfaction/country	3.60	4.07	4.53	4.37

Legend: 5 – strongly agree, 4 – agree, 3 – average, 2 – disagree, 1 – strongly disagree, AV – average value.

From the table 9 it can be seen, that the least satisfied with the use of the online course were the members of EfCCNa, whereas the nursing care providers from Poland and Slovenia have expressed the highest level of satisfaction with the online course. Nursing care providers from Poland felt most comfortable using the online course (AV = 4.65), whereas the members of EfCCNa felt the least comfortable using it (AV = 3.80). Almost all of the participants agreed that it was easy to learn how to use the online course, the highest level of agreement with this statement was expressed by the participants from Slovenia (AV = 4.43). The highest level of agreement with the statement that the content of the course is well structured was expressed by the participants from Poland (AV = 4.65) and Slovenia (AV = 4.20), and the lowest level of agreement by the members of EfCCNa (AV = 3.46). With the statement that the content of the online course is comprehensive and appropriate to their professional needs, most agreed the nursing care providers from Poland (AV = 4.65), and least the members of EfCCNa (AV = 3.60) as well as the nursing care providers from Czech Republic (AV = 3.83). The most of the participants agree that the online course was intuitive to use (AV above 4), the lowest level of agreement with this statement was expressed by the members of EfCCNa (AV = 3.66).

The highest level of agreement with the statement that the online course works consistently and well was expressed by the nursing care providers from Poland (AV = 4.61) and Slovenia (AV = 4.33). Most satisfied with the graphical organization were the nursing care providers from Poland (AV = 4.65), and the least satisfied the members of EfCCNa (AV = 3.40). Most of the respondents agree that the online course was user-friendly and that it was easy to navigate through it.

Table 10: The benefits of the knowledge acquired on the online course for further work with intercultural patients – comparison between countries

Item	EfCCNa	CZECH REPUBLIC	POLAND	SLOVENIA
	n=15	n=12	n=26	n=30
	AV	AV	AV	AV
Improve your vocational competences.	3.66	3.41	4.65	4.07
Improve your cultural awareness.	4.46	4.17	4.84	4.33
Improve your intercultural knowledge.	4.40	4.08	4.80	4.57
Improve your chances of mobility to different countries	4.00	3.42	4.30	4.03
and cultures.				
Improve your information and Communication	3.93	3.42	4.26	4.20
Technology (ICT) skills.				
Overall, I am satisfied with the MICE Intercultural	4.13	3.83	4.65	4.47
Nursing Care on ICU's Online Course				
I will be happy to recommend it to other nurses in order	4.06	3.83	4.69	4.57
to improve their professional skills.				
Average Value	4.09	3.74	4.60	4.32

Legend: 5 – strongly agree, 4 – agree, 3 – average, 2 – disagree, 1 – strongly disagree, AV – average value.

From the table 10 it can be seen, that vocational competences improved in nursing care providers from Poland (AV = 4.65) and Slovenia (AV = 4.07). All of the participating nursing care providers agree that their cultural awareness and intercultural knowledge have improved (AV above 4). With the statement that the chances of their mobility to different countries and cultures will increase, most agree the participants from Poland (AV = 4.30), and least the participants from Czech Republic. The majority of participants agree with the statement that their Information and Communication Technology (ICT) skills improved. Most of the nursing care providers were satisfied with the online course and would be happy to recommend it to other nursing care providers. The highest level of satisfaction was expressed by the nursing care providers from Poland (AV = 4.65), and the lowest by the nursing care providers from Czech Republic (AV = 3.83).

As a follow-up, we asked the participants an open question, with which we wanted to establish whether they have discovered any errors and deficiencies during the use of the online course. The answers were as follows:

- After completing the test of knowledge, the test was not automatically marked as completed.
- In one of the thematic sets, the instructions followed the test, which influenced taking the test, as the questions were related to the given instructions.
- The size of the letters could be bigger, or the possibility of enlarging letters should be added.
- Different cultures could be presented in more detail.

- Topic on Jehovah's witnesses...taking into consideration the non-use of adding blood and blood products.
- Some contents are too general; I expected more specific knowledge of intensive therapy.
- The opening and closing tests could be taken several times, which does not make any sense.
- After reviewing certain contents, these were not automatically marked as read.
- Grammatical mistakes in the text and in citations.
- Mismatched citations in images.
- Problem regarding MODULE III pain management: in Poland nurses cannot give the patient Fentanyl independently.
- Problem of platform: it would be much better if there was a possibility to mark where the course participant finished, in order to know from which point to start after brake. Additionally, the entire course could be shorter, as the same issue was sometimes repeated under different topics.
- At the end of each page there should be the icon 'next'. Additionally, that person was hoping
 that the course would be a combination of short films and reading materials, etc. (e.g. courses
 on the Curser platform), which would significantly increase the attractiveness of the course.
 Information in "Information about ethnic groups in Poland, the Czech Republic and Slovenia"
 could be a bit more current than from 2002; also language mistakes were noticed.
- Module II Hygiene procedures Task 3 the possible answers are not clear: A bath, B both (both what?), C nothing (nothing what?).
- Module III chapter 4 there are two quizzes, when trying to open the first quiz that was not possible, the participant couldn't complete the course ("no tasks were uploaded" was written).
- It is not clear that the participant must press the square button at the end to finish the module.
- One comment was about the correct answers to the questionnaire. "Brisbane declaration on culturally sensitive care is referring to education as well, but if you click education, it is marked as error".

- It would be important to develop Module III. This module should be expanded contents-wise.
- The first module is less interesting, as it contains a lot of history and theories. The second module is quite extensive and one gets overwhelmed with all the information. The third module is most suitable to my field of work.
- To improve the contents referring to interpersonal relationships, conflicts, communication.
- To improve the set that refers to brain death.
- To focus on the subjects that relate to the understanding of the attitudes of different cultures towards the dying patients, how to deal with the situation.
- To pay more attention to the contents pertaining to pain (to relieve the pain), organ donation, blood transfusion.
- To pay attention to the contents pertaining to the particularities of the intercultural nursing care in ICU.
- Module II should be expanded.
- I would expect more practical information organized in tables, which could be printed.

- I missed information on which gestures are considered offensive and which are acceptable in respective cultures. Information on the differences in treatment (e.g. black people need more analgesia) is also quite an interesting topic, which was not included in our nursing studies.
- It would be appreciated if Module II was divided into chapters according to respective cultures (e.g. Judaism, Islam,...).
- It would be important to further develop "Physical examination, Meaning of touch".
- It would be appreciated to develop the practical part model situations and case studies.
- Maybe a focus on particularities of care of critically ill children could also be added.
- Asian and especially Chinese and Korean cultures are most unknown to me. So maybe, it
 would be nice to learn to know more about these cultures and how to give the best nursing care
 to the patients from these cultures.
- The length (duration) of the course was a bit longer than I had expected.
- I think that the different sections would need to be visually more divided on the right side of the screen (where you click your way forward).
- It would really have been a big help if theory and text could have been read out loud.

Before starting their training through the online platform MICE-ICU, the participants (trainees) completed the entering test, which contained 12 close-ended questions. We offered one or more correct answers to each question. The maximum number of points that could be acquired was 12 (100 %). After the completed training through the platform, participants have once again taken the so-called closing test, which contained the same questions. With this approach we have measured/checked the progress in their knowledge, which is presented in more detail in Table 11.

Table 11: Performance of participants in the test of knowledge before and after training through the platform MICE-ICU

Project partner	Performance in the test of knowledge before training through the platform MICE-ICU Test score percentage	Performance in the test of knowledge after training through the platform MICE-ICU Test score percentage		
	%	%		
EffCNa	68.53	93.47		
Czech Republic	67.17	91.80		
Poland	64.30	93.07		
Slovenia	67.60	98.00		
All participants average	66.90	94.09		

Table 11 shows the performance of participants in the test of knowledge before and after the completed training through the platform MICE-ICU. In the preliminary test of knowledge, the lowest results were achieved by the participants from Poland (64.30 %), who, according to the ECTS grading scale, achieved grade 6 (E), which means that their performance meets the minimum criteria. These participants are followed by the participants from the Czech Republic (67.17 %), and Slovenia (67.60 %). The highest score percentage in the test of knowledge was achieved by the members of EffCNa (68.53 %). The participants from the Czech Republic, Slovenia and EffCNa have achieved the grade 7

(D), which means that their knowledge is fair, but with some significant shortcomings. The average score percentage of all participants in the preliminary test was 66.90 (grade 7/D according to ECTS). From the Table 11 it can be seen, that the participants after the completed training through the platform MICE-ICU achieved better results in the closing test of knowledge. The participants from the Czech Republic achieved 91.80 % in the closing test, the participants from Poland 93.07 %, and those from EffCNa 93.47 %, which means that according to the ECTS grading scale they achieved the grade (9/B), that is an above-the-average standard with some minor errors. The highest grade in the closing test after the completed training was achieved by the participants from Slovenia (98.00 %), which means grade 10 (A), an outstanding performance with some negligible mistakes. The average test score percentage of all participants in the closing test after the completed training was 94.09 % (grade 9/B according to ECTS).

Conclusion

We can conclude that the ICU nurses who finished online course have accepted it as a new way of life-long education and assessed it positively. The most satisfied with the online course were nurses from Poland and Slovenia, whereas those least satisfied were the members of the EfCCNa. The reason for this may be that a great number of respondents came from northern Europe and Germany, the places with substantial international migration. This is consistent with the MICE-ICU Report on ICU nurses intercultural training needs and competencies http://mice-icu.eu/wp-content/uploads/2017/08/O1-ICU-Nurses-intercultural-training-needs-and-competencies-analysis-report_EN.pdf in which nurses with the experience of work in multicultural environment and previous learning experience in the scope of intercultural nursing care possess higher cultural competencies, therefore their expectations regarding content of the course are also higher.

On the basis of knowledge examination of the participants before and after the training through the elearning platform MICE-ICU we have established, that the knowledge of the participants has improved considerably after the training. With the online course through the platform MICE-ICU we have achieved the intended learning outcomes, which we have set through the prepared training program, which was based on research evidence. The innovative approach to the lifelong learning of nursing care providers through an online platform has shown that nurses have motivation for such a type of self-education, and therefore it would be in the future necessary to enable the nursing care providers to take part in lifelong learning also in such manner, not only by means of classic lifelong learning in the form of seminars, workshops and conferences. The project MICE-ICU, as an example of good practice, undoubtedly confirms that. Because we wish to achieve the sustainability of the European research and development project MICE-ICU, we are going to appeal to the national professional associations and regulatory bodies in respective countries to gradually introduce and provide training for nurses through online platforms, which will enable the nurses to acquire credit points for renewing their nursing licenses.

In the light of the above, MICE-ICU online course for ICU nurses can be proposed as the form of professional development. The proposed suggestions of further improvements:

Technical shortcomings should be eliminated (the letters of the text should be bigger, or the
function to enlarge the letters should be installed, the function to print the text should be added,
the non-functioning links and the opening of the documents should be fixed, and the entire text

should be marked automatically once it had been read by the participant; the function »NEXT« should be added at the end of the text, the language mistakes in the text should be eliminated, and the citations matched. It should be enabled that the opening and closing texts could be taken only once (not several times).

- Module III should be broadened in terms of contents (adequately to the ICU specific work), different cultures and their particularities should be presented in more detail and in more practice orientation form (e.g. case studies).
- More audio-visual aids should be considered to include, which would make the course more attractive to use.