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BREASTFEEDING
COUNSELLING
TRAINING

Assessing the international *Breastfeeding and Early Interaction Course* in the COVID-19 era: student feedback and suggestions for improvement

Marge Põldma^{a,c*}, Aino Ezeonodo^b, Annely Kärema^{a,c} and Leena Hannula^b

^a East Tallinn Central Hospital, Ravi 18, 10138 Tallinn, Estonia

^b Metropolia University of Applied Sciences, Myllypurontie 1, 00920 Helsinki, Finland (Postal address: PO BOX 4000, 00079 Metropolia, Finland)

^c Tallinn Health Care College, Kännu 67, 13418 Tallinn, Estonia

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Abstract. With the global target of achieving an exclusive breastfeeding rate of 70% for babies up to 6 months old by 2030, there is a significant need for educated and skilled multiprofessional healthcare teams to support, protect, and promote breastfeeding. The Erasmus+ programme for the period of 2021–2027 supports the adoption of digital technologies, innovative and open pedagogies in education and training, and is also designed to reach out to a larger and more diverse group of students and staff in higher education. Since 2012, Metropolia University of Applied Sciences and Tallinn Health Care College have been providing education on basic skills and knowledge of breastfeeding to healthcare students of different curricula. The objective of the *Breastfeeding and Early Interaction Course* (BF&EI Course) is to facilitate collaborative online learning exchange and teamwork among different healthcare professionals. Student feedback is one of the factors influencing the development of a study course. After the course, students are equipped to provide clinical breastfeeding counselling and help mothers with lactation problems. However, the COVID-19 pandemic restricted contact studies and hence had some influence on the learning experience of the students as well as on the development of the breastfeeding course.

Keywords: breastfeeding, Erasmus+, COVID-19, student feedback.

1. INTRODUCTION

Starting from 2012, Metropolia University of Applied Sciences and Tallinn Health Care College have collaborated to offer the *Breastfeeding and Early Interaction Course* (BF&EI Course), aimed at educating healthcare students from different curricula on basic skills and knowledge of breastfeeding. The objective is to facilitate collaborative online learning exchange and teamwork with different healthcare professionals. Teaching methods such as lectures, group work and simulations are used. The views of several stakeholders such as pediatric nurses, midwives, IBCLC (International Board of Lactation Con-

sultant Examiners), peer-to-peer support organizations are presented in the course to give a proper overview of the field. Teaching methods such as simulations and seminars enable students to gain an international perspective on breastfeeding and parenting and to be prepared for evidence-based culturally sensitive breastfeeding counselling. Upon completion of the course, students receive either a certificate of attendance or a certificate of breastfeeding counsellor, depending on national standards.

With the global target of exclusive breastfeeding rate of 70% for babies up to 6 months old by 2030, there is a great need for educated and skilled multiprofessional healthcare teams to support, protect and promote breastfeeding. Currently, only 18% of babies aged 6 months are exclusively breastfed in Estonia [1], and 9% in Finland

* Corresponding author, marge.poldma@gmail.com

[2]. Health facility staff who provide maternity and infant feeding services, including breastfeeding support, should have sufficient knowledge, competence and skills to support women to breastfeed (WHO recommendations on maternal and newborn care for a positive postnatal experience 2022). Breastfeeding counselling, alongside baby-friendly hospital support is one of the key interventions to improve breastfeeding rates. Sensitive and effective counselling may help mothers who are considering or are already breastfeeding to overcome common breastfeeding challenges [3].

Mothers benefit from breastfeeding encouraging strategies that support their self-efficacy and sense of being capable and empowered and are tailored to their individual needs. In this regard important factors are collaboration with the community and family members, appropriate staffing levels as well as developing necessary communication skills and reducing inequity for low-income families [4]. Breastfeeding-related messages have to be culturally sensitive and healthcare providers need to be accordingly and comprehensively trained [5].

The Erasmus+ programme for the period 2021–2027 supports the implementation of digital technologies, innovative and open pedagogies in education and training, and is also designed to reach out to a larger and more diverse group of students and staff in higher education – for example, by the wide use of information, communication and technology tools, as well as the combined use of physical mobility, online learning and cooperation. Finding and evaluating new ways for integrated courses and e-learning possibilities is an education priority [6].

Developing an e-learning programme is based on the evaluation of learning needs and their correspondence to e-learning outcomes [7]. The objective of active learning simulation is to select the most insightful cases with the subsequent potential for practitioners to learn from each other. The contemporary digital era has enhanced the accomplishment of new anticomplementary competencies, eliminating borders between people and knowledge through the proliferation of e-learning worldwide. E-learning technologies with the emphasis on the potential for these platforms to support and develop problem-solving communities amongst higher education settings are of great value [7]. When engaging in virtual learning, the most preferred resources mentioned by the students are videos, video calls with peers, multiple-choice quizzes and discussion forums [8].

Since 2012 the blended international intensive BF&EI Course has been held using the Moodle platform for sharing study materials, participating in written groupwork, discussion forums, online lectures and submitting assignments such as interpretations of videographed situations, reflecting on reading materials and taking home exams.

Contact days twice during the course, each at one participating university, gives the chance to practise culturally sensitive counselling skills, hands-on techniques in breastfeeding management and visit local hospitals. The COVID-19 pandemic restricted travelling and enhanced the need for e-learning, hence more lectures and simulations were held online and recorded.

Feedback on the BF&EI Course has been gathered routinely from the students over the years. However, the methodology has changed from face-to-face group reflection in the classroom to individual anonymous computer-based form. In autumn 2021, the course was held entirely online for the first time and a feedback questionnaire was introduced after the closing seminar. Student surveys are relatively easy and cost-effective to administer, and the feedback encourages and supports the teachers [9].

2. MATERIALS AND METHODS

In this descriptive cross-sectional study, the population of interest was healthcare students from various cultural and professional backgrounds who were willing to gain skills and knowledge about managing breastfeeding.

2.1. Participants and data collection

The study included a population of 35 Erasmus alumni healthcare students in their early 20s and 30s from Estonia, the Czech Republic, Italy, and Finland, who participated in the BF&EI Course in autumn 2021. The sample consisted of 19 students from Tallinn Health Care College, including 2 visiting students from the Czech Republic and 1 from Italy, and 16 students from Metropolia University of Applied Sciences.

Data were collected through an anonymous online survey administered after the closing seminar of the course. Providing feedback was voluntary and it was made clear that answers would not affect any outcomes either individually or for the group. The use of an anonymous online survey for data collection may provide some benefits, such as increased confidentiality and reduced social desirability bias. However, it could also limit the ability to follow up with participants and gather more detailed information.

The data were collected in the period of eight days from 22 November to 30 November 2021 using the e-form in the Metropolia online platform. Self-administered questionnaires were used.

2.2. Questionnaire

Feedback questionnaires are an effective way of evaluating the effectiveness and quality of educational pro-

grammes. They allow participants to express their opinions, experiences, and suggestions in a structured manner. Feedback questionnaires are particularly important in the context of healthcare education, where students need to develop critical skills and knowledge to provide quality care to their patients. Teachers developing this course can identify areas of improvement, adjust their teaching methods, and ensure that their course meets the needs and expectations of their students. Therefore, including a feedback questionnaire in the data collection process can provide valuable insights into the effectiveness and quality of the BF&EI Course. The questionnaire used in this study was developed by the teachers who designed the BF&EI Course, as the course requires a tailored approach to assessing student feedback.

When developing the questionnaire, it is important to ensure that the questions are clear, easy to understand and relevant to the research objectives. In this study, the questionnaire included 13 ordinal questions rated on a 5-point Likert scale, which can provide more nuanced responses than a binary scale. Additionally, the inclusion of two open-ended questions allowed participants to provide more detailed feedback.

The call to participate in the feedback survey was addressed to the entire population of the BF&EI 2021 autumn course through the Metropolia Moodle platform. It is worth noting that the 48% return rate is relatively low, which may limit the generalizability of the study findings. Despite the low return rate, the study still gathered responses from 17 students representing both Metropolia University of Applied Sciences and Tallinn Health Care College.

2.3. Ethical considerations

All student materials and the questionnaire were in English, as before the recruitment to the BF&EI Course all the students were confirmed to have a good command of the English language. It was explained to the students that participating in the questionnaire was voluntary and academic progress would not be affected by their decisions. Filling in the questionnaire was anonymous and personal identifiers were not collected. Participants were free to skip any question. Ethical approval was not required according to institutional regulations, as the survey did not involve sensitive or potentially harmful topics and the data collected was anonymized and kept confidential.

2.4. Data analysis

For data analysis, both quantitative and qualitative methods were used. The results of ordinal questions were averaged and presented with 0.01-point precision. A qualitative content analysis was used to evaluate the

answers to open-ended questions. The responses were read and themes or patterns were identified in the text. There were 23 responses for the open-ended questions, which allowed only minimal coding. Due to the small numbers in specific groups, subgroup analysis was not carried out. The participants' demographic information was not analysed because it could possibly lead to the identification of the respondent.

3. RESULTS

Training and continuity of care as well as workload management supported by national breastfeeding policies could improve breastfeeding rates and experiences. After the BF&EI Course, students should be able to provide clinical breastfeeding counselling and help mothers with lactation problems. In this study, we gathered information about the students' evaluation of the course (Table 1) and suggestions on how to improve the course. We used 17 questions, of which 15 were closed and 2 open-ended.

Participants were asked to use numerical rating from 0 to 5 for 13 questions. The results showed that self-evaluated skills of the English language were relatively high, with an average of 4.52 out of 5, and only one student reported a score lower than 4. The students were very satisfied that they could complete the course at their own pace (average 4.88 points out of 5) and that the evening lectures were recorded (average 4.35 points) so these could be reviewed at their convenient time. The learning atmosphere was evaluated at the average of 4.29 points, with one answer scoring 0, and the impact of the content on increasing knowledge was scored at 4.23 points. Slightly lower scores were given to the content meeting student's expectations (average 3.82 points), clarity of the objectives of the contact days (average 3.70 points), simulations deepening the understanding of the subject (average 3.70 points) and enabling students to exchange ideas and views with others in a reflective way (average 3.58 points). The students found pre-tutoring of teachers preparing for the contact days less useful (average 3.41 points).

Several students highlighted the importance of discussion during contact days, although face-to-face contact days would have allowed for more discussion, since much information was provided. Learning from teachers' experience and the theory behind practical skills were indicated as benefits of the course. According to the students, the atmosphere supported learning from each other as well as from teachers and enabled to hear about ideas from different countries and people. The multiprofessional background of the participants enriched the understanding of breastfeeding management.

'It was great to hear different inputs from several professionals in the field. Also, I liked the fact that the

Table 1. Evaluation results of the *Breastfeeding and Early Interaction Course* (n = 17)

Evaluated topic	Average rating	Standard deviation	Range of ratings
I was satisfied with the online contact days.	3.94	0.53	2–5
The learning atmosphere was good.	4.44	0.56	3–5
My English skills were sufficient to study and interact effectively during the contact days.	4.28	0.81	0–5
I was satisfied with the possibility to complete the course at my own pace.	4.69	0.49	5
I was satisfied with the online and recorded evening lectures.	4.24	0.75	2–5
The pre-tutoring of teachers was a useful preparation for the contact days.	3.29	1.72	0–5
The topic description given by the lecturers was clear.	4.31	0.46	4–5
The content met my expectations.	3.69	0.95	0–5
The content increased my knowledge.	4.28	0.57	2–5
The objectives of the contact days were clear.	3.77	0.78	2–5
Simulations and groupwork deepened my understanding of the subject.	3.32	0.99	0–5
Simulations and groupwork enabled me to exchange ideas and views with others in a reflective way.	3.08	1.14	0–5
I would recommend this course to others.	4.35	0.74	2–5

students were able to express their opinions, even if they didn't necessarily agree with the teachers. Although this course was about breastfeeding and early interaction, I am pleased that we also learned about neonatology and the hospital care of preterm babies.'

Although it seemed difficult for the students to arrange remote groupwork for making presentations on breastfeeding related topics, after achieving the result, there was satisfaction with the possibility to work in a multicultural group.

'I liked that we could share our experience with professionals from many parts of the world',

'... hearing different opinions/ways of how things work in different countries.'

Regarding practicalities, the recorded lectures were highlighted as helpful because they enabled to participate in the course even when clinical practice timetables or other duties did not allow live participation. The short 5-question online quizzes were mentioned as enjoyable.

However, there were also some points of discontent related to individual expectations for the content and platform of the course, relatively large workload and online simulations due to the restrictions of the COVID-19 pandemic. Dissatisfaction with the content is likely related to the background of the students: there are lectures and seminars designated to breastfeeding in the midwifery curriculum, so some of the information might overlap. Some students expected a more in-depth approach to pathologies and counselling skills and pointed to specific expectations for teaching techniques.

'I would like to see/hear more practice material for pathologies, such as mother after Caesarean section, stopping lactation after delivering a dead baby (I know it is a

very hard topic, but it's also part of our job), psychological problems with breastfeeding, drug addicted mothers, etc. In my opinion there was too much information about a good latch and suckling, but that is something we should already know. I would like to incorporate learning facilitators – dolls as newborns, fake boobs with normal nipples, inverted nipples, big breasts, small breasts.'

The disadvantages of online simulations were mentioned several times. Face-to-face simulations would have had a great impact on the positive outcome of the course and being a better breastfeeding consultant. Simultaneous live broadcast sessions on the premises of both universities were suggested so that people could follow them remotely and the final discussions could be held together.

'I really hope that there would be real simulations in school next year; this way all the theory learned would be better memorized.'

The workload seemed to discourage some of the students, especially when the deadlines of the assignments were drawing close. On the other hand, one student mentioned that as a helpful learning method.

'... an assignment with a bunch of questions that are important to know as counsellor. Even if it can be time-consuming to answer, these kind of assignments really help to learn and also remember things better; in addition to that, they are extremely helpful in future studies/practice/work.'

4. DISCUSSION

The cognitive theory of multimedia learning assumes that learning is an active process of filtering, selecting, orga-

nizing, and integrating information [10]. This theory is particularly relevant in the context of healthcare education, where students need to develop a range of competencies, including ethical awareness, critical and reflective skills, empathy, and communication skills. One programme that offers opportunities to develop them is the Erasmus exchange programme, which promotes internationalization and cultural diversity. However, achieving these competencies requires a combination of face-to-face and online interaction, which can be facilitated through blended learning.

The Erasmus exchange programme gives an opportunity to develop embracing internationalization and has the potential to increase students' competencies. Midwifery educators have also identified such competencies as ethical awareness, critical and reflective skills, empathy and communicational skills [11]. Healthcare graduates must not only possess the technical skills necessary to practise, but must also be proficient in other competencies that impact their professional practice, including the awareness of their own attitudes, values and responses to health and illness. In addition, they must also be able to educate others effectively, critically evaluate their own professional practice and have good communication skills. This is possible through blended learning, which integrates face-to-face and online interaction [12]. It was found that students were satisfied with flipped learning methods – e-learning and face-to-face meetings.

When conducting an online course, participants expect that there is a more flexible timetable and preferably one can study at one's own pace. We saw that the students were very satisfied with the possibility to skip the live lecture and review the recording later. It is not possible to say, considering the limitations of this survey, whether this was caused by the temporary change in study arrangements to a fully online course or could be related to Generation Z's more intrapersonal view on studying [13]. Lower ratings for simulations deepening the understanding of the subject and enabling students to exchange ideas and views with others in a reflective way could support this theory.

While simulation can be very useful for consolidating knowledge, it can be challenging to teach and learn these skills remotely. In breastfeeding counselling much can be done with words, but there are some specific manual skills that normally require real-life practice. These skills include, for example, manual expression of breastmilk, assembling a manual or electric breast pump and assessing a lactating breast for abnormalities. On the other hand, providing the practice of hands-off approach could lead to better supported patient autonomy.

Due to the COVID-19 pandemic, this was the first time in 10 years that we delivered the course completely online. Managing online learning and simulations with

students from two universities was challenging and this obviously affected the course feedback from the students. Based on this experience, we conclude that delivering the course in this way is possible, but more difficult and less satisfying for all than having contact learning days with face-to-face simulations and live discussions. In the future we hope that contact learning days will be included in the blended intensive international *Breastfeeding and Early Interaction* courses.

5. LIMITATIONS

Due to the small sample size of the study, not all the results can be put directly into practice when developing the BF&EI Course. The results could be more reliable if some measuring points were added and the data compared across the years of occurrence. Conducting the research only on one-year students is a limitation of the research. The results should be interpreted with caution due to the small sample size, the lack of measuring points, and the limited scope of the study. Future research should address these limitations to provide a more comprehensive evaluation of the BF&EI Course.

6. CONCLUSIONS

Intercultural experiences are essential in developing intercultural sensitivity and healthcare workers' ability to interact and work with patients from different cultures. Intercultural sensitivity accepts the existence of cultural differences and similarities between individuals, and it is required to train nurses who can respond to cultural needs of society, have cultural knowledge and skills regarding society and show a high level of intercultural sensitivity [14].

The learning atmosphere and the impact of the content on increasing knowledge were highly evaluated by the participants. Lack of connection through the Moodle platform was mentioned as a challenge.

Simulations provide an effective means for students to practise psychomotor ability, as they will hone it in clinical placement with real patients. The results give a solid understanding of the importance of simulations and therefore the need to develop a more appropriate online simulation approach.

Although the small sample size of the study does not allow to make extensive changes in the BF&EI Course, some of the tips given by students will be implemented in the upcoming courses. It is necessary to collect student feedback in a uniform and consistent manner to make better use of the outcome. The course also has the role of the mediator of contacts: it connects hospitals, peer or-

ganizations and healthcare providers to share their experiences, which has led to some collaboration results.

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Rahvusvahelise imetamise kursuse hindamine COVID-19 perioodil: õpilaste tagasiside ning parendussoovitused

Marge Põldma, Aino Ezeonodo, Annely Kärema ja Leena Hannula

Ülemaailmse eesmärgiga saavutada 2030. aastaks rinnaga toitmise määr 70% kaasneb suur vajadus haritud ja oskuslike tervishoiuimeeskondade järele, kes toetaksid, kaitseksid ja edendaksid rinnaga toitmist. Erasmus+ programm perioodil 2021–2027 toetab digitehnoloogiate ja uuendusliku pedagoogika kasutuselevõttu hariduses ja koolituses ning on mõeldud jõudma ka suurema ja mitmekesisema hulga üliõpilaste ja töötajateni. Alates 2012. aastast koolitavad Metropolia Rakendus kõrgkool ja Tallinna Tervishoiu Kõrgkool erinevate õppekavade tervishoiutudengeid rinnaga toitmise põhioskuste ja -teadmiste vallas. Eesmärk on hõlbustada veebipõhist õppevahetust ja meeskonnatööd erinevate tervishoiutöötajatega. Õpilaste tagasiside on üks õppekursust kujundavaid mõjutegureid. Pärast kursuse läbimist võivad üliõpilased osutada imetamisnõustamise teenust ja aidata imetamisprobleemidega emasid. Kultuuridevahelised kogemused aitavad arendada kultuurilist tundlikkust ning tervishoiutöötajate võimet suhelda ja töötada erinevatest kultuuridest pärit patsientidega, ühtlasi arendades ainulaadset imetamisnõustamise kursust. COVID-19 pandeemia piiras aga kontaktõpinguid ja avaldas seega mõningast mõju nii tudengite õpikogemusele kui ka rinnaga toitmise kursuse arengule.