Original research article

Utility of "The empowering nurse educators in the changing world" study programme

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Abstract

Nurse educators' competence requirements are constantly evolving. Continuous professional development opportunities vary and there are very few programmes that utilize international collaboration. An Erasmus+ funded New Nurse Educator project developed and implemented a 30 ECTS study programme for nurse educator education and continuous professional development. The aim of the current study is to report the evaluation of the utility of the Empowering Nurse Educators in the Changing World (ENEC) study programme. International descriptive multi method study with a pre-test post-test design was conducted. Evaluation of the impact of the programme on the participants utilized five different instruments and participants' learning diaries. Programme participants were nurse educators and nurse educator candidates from six European countries (*n* = 42). Analyses indicate that the participants' competence increased in all areas measured after the programme, and that their competence is good. Participants highly valued the international collaboration and exchange of experiences and expertise. The evaluation indicates that international nurse educator education programmes are beneficial for both seasoned and aspiring nurse educators. This study provides novel information on the development and enhancement of nurse educator competence. For further development of continuing professional development, it is crucial to support the development of nurse educator education study programmes in Europe.

Keywords: Competence; Continuous professional development; Education; Nurse educator

Introduction

Nursing and nurse education are constantly evolving, as are the health issues and social and healthcare service systems. Nurse educators are required to expand and deepen their knowledge, skills, and attitudes to respond to the change in needs of the student nurses, health systems and patients (Koskimäki et al., 2021). The core competencies of nurse educators have been defined by the WHO (2016), but there are no European wide requirements for nurse educator education, which has been identified as an improvement goal (Jackson et al., 2009; Salminen et al., 2010; Zlatanovic et al., 2017). The European Commission (2017) supports higher education educators, developing their pedagogical competence and increasing collaboration between educator education and training within the EU. Nurse educator education varies globally, while formal nurse educator education exists in only a few countries (Campos Silva et al., 2022).

Most nurse educators need and participate in continuous professional development (CPD) at some point of their career (Mikkonen et al., 2019a). The CPD needs of nurse educators revolves around four major themes: (1) professional competencies, (2) management and resources, (3) communication

and collaboration, and (4) agency. The needs of CPD may vary according to the nurse educators' own skills, competencies, and attitudes, but also according to the needs of the students and their specific institutions (Smith et al., 2023). CPD can take multiple forms, from independent utilization of evidence-based teaching to participation in multinational conferences and formal continuous education courses (Koskimäki et al., 2021).

Requirements for nurse educators' competences are numerous. Nurse educators should have pedagogical and research competence, skills in international networking, leadership, and management (Mikkonen et al., 2019b; WHO, 2016), and up to date knowledge and skills of clinical nursing. They should be able to provide high quality education both in classroom and in digital environments (van Laar et al., 2017; WHO, 2016; Zlatanovic et al., 2017). Advancements in technology are faster than ever, with new resources emerging at a cumulative speed. Professional collaboration (and skills related to that) are also important to nurse educators (WHO, 2016). They should be able to provide evidence-based teaching while also being able to adapt their teaching to the global and future health issues (Mikkonen et al., 2019b; Shustack, 2020). The demand for changes often occurs faster than the nursing education curriculum evolves. Staying up to date on contemporary issues is not enough for nurse educators as they also need to be able to anticipate the future needs of societies, health systems, and student nurses. Moreover, nurse educators are significant role models for future nurses, hence, their ethical and moral conduct needs to be fit for that role.

To respond to the need of comprehensive and unified nurse educator education and CPD programmes, a study programme "Empowering Nurse Educators in the Changing World (ENEC)" was developed. The study programme is intended for nurse educator education and continuous development.

The aim of this study is to report the evaluation of the utility of the Empowering Nurse Educators in the Changing World (ENEC) study programme.

Materials and methods

Research design
This is an international descriptive multi method study with a pre-test post-test design. The evaluation is part of an Erasmus+ funded A New Agenda for Nurse Educator Education project between six universities: University of Turku and University of Eastern Finland (Finland); University of Malta (Malta); Constantine the Philosopher University (Nitra, Slovakia); Universitat Internacional de Catalunya (Spain), and The University of Edinburgh (Scotland).

The study programme
The study programme, Empowering Nurse Educators in the Changing World (ENEC), is built upon the WHO definition of nurse educators' core competencies (WHO, 2016) and a nurse educator competence model (Mikkonen et al., 2020). The 30 ECTS programme comprises five study units: (1) Empowering Learning Environments in Nurse Education (ELENE), (2) Global Health Issues (Global health), (3) Issues in Future Nurse Education (IFNE), (4) Evidence-Based Teaching (EBT), and (5) Ethics and Nurse educators' work (ENEW). Of the five study units, ELENE was 10 ECTS and the other four study units were 5 ECTS each. ELENE focused on digital learning environments and resources, Global health focused on health and health care as a global phenomenon, IFNE on contemporary and future issues that are emerging or highly relevant in future nurse education, EBT on the essence of nurse education through evidence-based teaching in theory and practice, and ENEW in the ethics of nurse educators' work.

Study units 2 (Global health), 3 (IFNE), and 5 (ENEW), consists of distance learning methods and environments (*e.g.*, webinars, Moocs, online lessons, social media applications, group, and individual assignments). Contact learning includes an intensive week with lectures, study visits and seminars combined with online activities in ELENE, and on-site teacher training was combined with the online activities in EBT.

Sample
Participants were either nurse educator candidates or nurse educators from the participating countries. Total sampling was used, and the study sample consisted of the participants of the study programme.

In total, 42 participants participated in all or part of the programme, with 37 (88%) participants completing at least one study unit and 17 (40%) participants completing the full 30 ECTS study programme. The first survey gathered demographic data, with 29 (69%) participants responding. Of the 29 participants, 37.93% (n = 11) held a bachelor's degree, 27.59% (n = 8) held a master's degree, and 34.48% (n = 10) held a doctoral degree. Eleven (37.9%) of the participants were doing their undergraduate degree (bachelor and master) (European Commission, 2020), 41.38% (n = 12) were doing their post graduate degree, and 20.69% (n = 6) were not currently students. Most (58.62%, n = 17) had had some pedagogical training, and on average 11.79 (SD = 9.74) years of clinical experience and 3.85 (SD = 5.73) years of teaching experience, forming a very heterogenous group of participants. Clinical experience varied between 1–34 years, and teaching experience varied between 0–18 years. Response rates to different instruments and the evaluation varied from 27–85%.

Instruments
Data was collected with online surveys and a learning diary before, during, and after the study programme or parts of it, between September 2021 and June 2022. A total of four instruments were utilised for data collection. In two study units, learning diaries and a reflective survey were utilised for data collection. Instruments used in this study were validated and/or pretested prior to the study (Table 1). In addition to the instruments and learning diaries, some background information was gathered: (1) Age, (2) Nursing or other same level health care education, (3) Clinical experience in nursing or health care, (4) Phase of studies, (5) Educational training, and (6) Teaching experience. Data collection was conducted in English.

Data analysis
The quantitative data gathered via online surveys was analysed with descriptive statistical methods using JMP®, Version 17. SAS Institute Inc., Cary, NC, 1989–2023. Inductive content analysis was used to analyse the qualitative data by two researchers individually (Graneheim and Lundman, 2004). Data analysis and interpretation was undertaken collaboratively between the partner institutions.

Ethical considerations
The ethical review was undertaken by the University of Turku ethical board. Research permits were granted from the University of Turku. The study was conducted following the ethical guidelines of The European Code of Conduct for Research Integrity (ALLEA, 2023).

Table 1. Summary of the instruments and methods of data collection	
Elements evaluated of the study programme	Instruments and methods
The whole programme (ENEC)	Health and Social Care Educator's Competence (HeSoEduCo) instrument (Mikkonen et al., 2020) • 43 items • Six subscales: (1) Competence in Evidence-based practice, (2) Pedagogical competence, (3) Competence in administration and curriculum, (4) Competence in Digital pedagogy, (5) Competence in networking and collaboration, and (6) cultural competence. • Likert 1–4; (1 = fully disagree, 2 = disagree to some extent, 3 = agree to some extent, 4 = fully agree).
Study units	
Empowering Learning Environments in Nurse Education (ELENE)	OODI, Educators and educator candidates self-assessed competence in digital pedagogy (Ryhtä et al., 2021) • 28 items • 6 subscales: (1) Professional engagement, (2) Digital resources, (3) Teaching and Learning, (4) Assessment, (5) Empowering learners, and (6) Facilitating learners' digital competence. • 2 Items VAS 0–10 (0 = weak, 10 = strong), 26 items Likert type scale from 1 to 5 (1 = not at all, 5 = very well).
Global health issues	Global Health Competence Instrument (Wilson et al., 2012) measuring the attitudes towards global health competencies • 30 items • 5 subscales: (1) Global burden of disease, (2) Health implications of migration, travel and displacement, (3) Social and environmental determinants of health, (4) Globalization of health and health care, and (5) Health care in low-resource settings. • Likert scale from 1 to 4 (1 = strongly disagree, 4 = strongly agree). • Additional subscale about the educators' own competence in the above-mentioned subscales. • Likert type scale from 1 to 5 (1 = very poor, 5 = excellent).
Issues in Future Nurse Education (IFNE)	Reflective diary from commencing the study unit until completion of the study unit. Participants were requested to submit three learning diary entries: during the first week of the study unit, during the third week of the study unit, and during the fifth week of the study unit. Participants were asked to reflect on content and methods used in the study unit.
Evidence Based Teaching (EBT)	Reflective questionnaire tool with qualitative questions (developed specifically for the project). Questionnaire consisted of three questions regarding participants' expectations and goals before the study unit and their teacher training, and three themes of questions regarding their learning experience, teacher training experience, and experiences of the implementation of the EBT study unit.
Ethics and Nurse Educators' Work (ENEW)	NEE, Nurse Educators Ethics and Value Base © Leino-Kilpi, Helena 2006 (Salminen et al., 2013a) • 19 items • 6 subscales: self-evaluated knowledge of ethical principles of nurse education, self-evaluated fairness towards others, self-evaluated respect towards others, perception of fairness of others, perception of respect from others, and respect of the general public towards nurse educators. • 5-poin Likert-type scale (1 = very untrue, 5 = very true).

Prior to applying to the study programme, the candidates received information about the study programme and the research evaluation of the study programme. Prior to participating in the different phases of the study, the participants received privacy notices, and an information letter regarding the project, data collection, and their rights as research subjects. Participation was voluntary. Participants gave an electronic informed consent confirming receipt of sufficient information and their right to withdraw from the research at any given time without providing justification.

Results

Impact of the ENEC on participants' competence
Competence of nurse educators increased during the study programme in each of the competence areas measured. Administrative and curriculum competence had the lowest rating at the beginning of the study programme (M = 2.37) and competence in evidence-based practice the highest (M = 3.26). After the study programme, pedagogical competence and competence in evidence-based practice were evaluated highest (M = 3.51). Networking and social competence were evaluated lowest (M = 3.05). The greatest change was in administrative

and curriculum competence, and the most modest change was in evidence-based teaching (Table 2, Suppl. Table 1).

Impact of ELENE on participants competence in digital pedagogy
The participants evaluated their overall competence in digital pedagogy to be average (M = 5.59), and their interest in utilizing digital pedagogy to be high (M = 8.23) (VAS 0 = weak, 10 = strong). The study unit had most impact on competence in teaching and learning and digital resources, and least impact on competence in empowering learners and assessment (Table 3, Suppl. Table 2).

Impact of the Global Health issues – study unit on participants competence in global health
The participants evaluated all the global health competences that are valuable for nursing students before and after the Global Health Issues study unit (Table 4). After the study unit the evaluated importance of global health competences increased in three of the competence areas (2, 4, and 5), remained the same in two competence areas (1 and 6), and decreased in one competence area (3). Participants' competence to teach global health issues increased from M = 2.98 to M = 3.64 (Table 4). After the study unit, the participants evalu-

ated their competence to teach health implications of mobility of people the highest (M = 3.82) along with health as a human right. The global burden of disease had the lowest competence (M = 3.27) – Suppl. Table 3.

Table 2. Competence of nurse educators and educator candidates before and after the study programme (ENEC)			
Total competence scale N = 42, Pre-test n = 29, response rate 69%, Post-test n = 17, response rate 40%	Mean pre	Mean post	Mode pre/post
Competence in evidence-based practice	3.26	3.51	3/4
Pedagogical competence in teaching and guidance	3.05	3.51	3/4
Administrative and curriculum competence	2.37	3.39	3/4
Education technology competence	2.86	3.40	3/3
Networking and social competence	2.78	3.05	3/3
Cultural competence	2.92	3.50	3/4

Table 3. Competence in digital pedagogy before and after ELENE			
Competence in digital pedagogy N = 41, Pre n = 22, response rate 54%, Post n = 11, response rate 27%	Mean (SD) pre	Mean (SD) post	Mode pre/post
Digipedagogical competence	5.59 (2.06)	5.91 (2.34)	6/5
Interest in utilizing digital technology in education	8.23 (2.16)	8.82 (1.40)	10/10
Professional engagement	3.43	4.00	4/4
Digital resources	2.91	3.66	2/4
Teaching and learning in digital pedagogy	3.11	3.89	3/4
Assessment	3.03	3.39	3/4
Empowering learners	3.26	3.55	4/3
Facilitating learners' digital competence	2.98	3.53	3/4

Table 4. Global health competence before and after Global Health Issues – study unit			
Global health competence N = 22, Pre n = 9, response rate 41%, Post n = 11, response rate 50% The abilities required from nurse graduates	Mean pre	Mean post	Mode pre/post
Global burden of disease	3.50	3.48	4/4
Health implications of mobility of people	3.50	3.59	4/3
Health as a social and environmental issue	3.60	3.47	4/4
Globalization of health and healthcare	3.26	3.50	3/3
Healthcare in low resource areas	3.49	3.58	4/4
Health as a human right	3.67	3.70	4/4
Nurse educator competences to educate global health to student nurses	2.98	3.65	4/4

Impact of IFNE on the participants
Altogether, 18 of the 27 IFNE participants gave consent to use their learning diaries for qualitative analysis (response rate of 67%). Qualitative analysis revealed four main themes about the impact of the IFNE study unit: communication, leadership, learning, and networking. Subsequently, the four main themes were divided into 12 subthemes (Fig. 1).

Practicalities, safety, and language proficiency formed the communication theme. Participants emphasized the value of regular contact with each other and the mentors to be able to complete the study unit. Participants valued being in a safe environment where everyone was listened to and respected,

making them feel comfortable. Language proficiency was both a benefit and a challenge. Sometimes it was hard to make oneself understood or understand what the others were saying, however, having English as the programme language improved individuals' language proficiency and their own self-esteem.

"It was interesting to see how each of us was busy with our work and life commitment. Nevertheless, we worked efficiently and communicated very well via WhatsApp and emails" (Participant 9).

In the study unit, leadership was seen as combination of three elements, leadership of the group, personal leadership, and facilitation. More experienced participants assumed leadership of the group and shared their expertise. The leader-
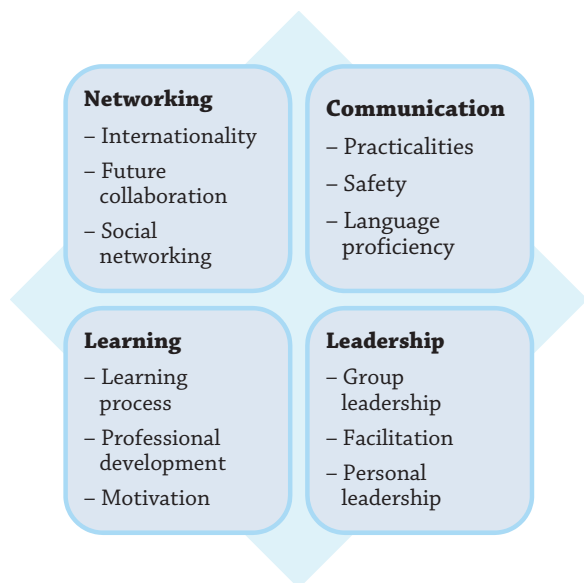
Fig. 1. Impact of the team-based learning during the international Issues in Future Nurse Education study unit

ship of the group had both positive and negative implications on participants, as they felt that it brought security to have a leader, but sometimes they could also feel bossed around. Personal leadership entailed balancing time management between home, work, and studies. Participants also reflected on their individual contribution to the teamwork and on their own abilities in comparison with the team.

"I can't help noticing that our education maybe gives more opportunities to search data and research. We were somehow leaders in our group" (Participant 13).

In the study unit, learning consisted of a learning process, motivation, and professional development. The learning process occurred through teaching and learning from each other in the group, with individual and group contribution to the group work. The study unit was motivating, as it required sharing experiences and expertise with others. Motivation to participate in the teamwork was considered positive for most, but simultaneously there were issues like differences in theoretical and practical knowledge and language proficiency that decreased motivation to some extent. Participants also reported that the study unit promoted increased self-assertiveness and the motivation to study more. The participants gained professional development through learning new content and methods, gaining cultural competence through international collaboration, sharing experiences and being able to widen their own perspectives. The participants also reported gaining increased self-appreciation through the experience.

"I can honestly say that my expectations for this group work have been met; working in an international team has provided a fantastic opportunity to learn about other cultures and build international networks" (Participant 10).

Networking was built on internationality, collaboration, and social networks. Participants stated that having previous

experience of international collaboration was beneficial for the study unit. Also, international collaboration and networking were seen as an individual value. Participants valued learning about other countries, their culture, and service infrastructure. Collaboration was a necessity and this further increased the collaboration skills of the participants. Participants also valued the newly gained social networks, both professionally and personally.

Impact of EBT on the participants
There were 26 participants in the EBT study unit. 22 (85%) completed the survey before the study unit, and 15 (58%) completed the survey after the study unit. Before starting the EBT study unit, the participants expected to gain new knowledge and skills, learn evidence-based teaching, share experiences, improve their own teaching, gain international experience, and share good practices.

They explained that their competence was enhanced during the study unit. They achieved their own goals and gained competence in EBT, pedagogy, reflection and evaluation, and culture. Furthermore, they gained confidence in EBT and experience in implementing it. They also were able to utilize the gained experiences and competences in their own work as educators.

"I consider that I have satisfactorily achieved the personal learning objectives: to develop the competence of Evidence-Based Teaching in the whole process of designing the teaching event, developing, and evaluating it. Assessed through the written assignment and peer feedback..." (Participant 2).

The participants gained international collaboration and experiences. Their motivation and learning increased through feedback from their peers and mentors. They felt that their learning was enhanced and enriched by international collaboration and by exchanging experiences and good practices. They valued the opportunity to have the international teacher training.

"The feedback (peer and instructor) during my teacher training support my learning as I have learnt which area needs to be improved, but overall, we receive positive and motivating feedback" (Participant 6).

According to participants, the content, methods, and evaluation were aligned with the objectives. They were able to utilize versatile learning methods and environments to practise their learning. Workload was deemed unaligned with the ECTS and heavier than they had expected. Some of the participants had hoped for more advanced content than the study unit offered (Fig. 2).

"All the activities and teaching methodologies supported the achievement of my objectives. As they enhanced reflection and a good support to an evidence-based class creation!" (Participant 12).

Impact of ENEW on participants' ethical competence
All competence (except fairness towards nurse educators in society) increased during the study unit. (Table 5) After the study unit, all the participants considered themselves very fair, showing respect towards their colleagues, students, superiors, and clinical mentors (Suppl. Table 4).
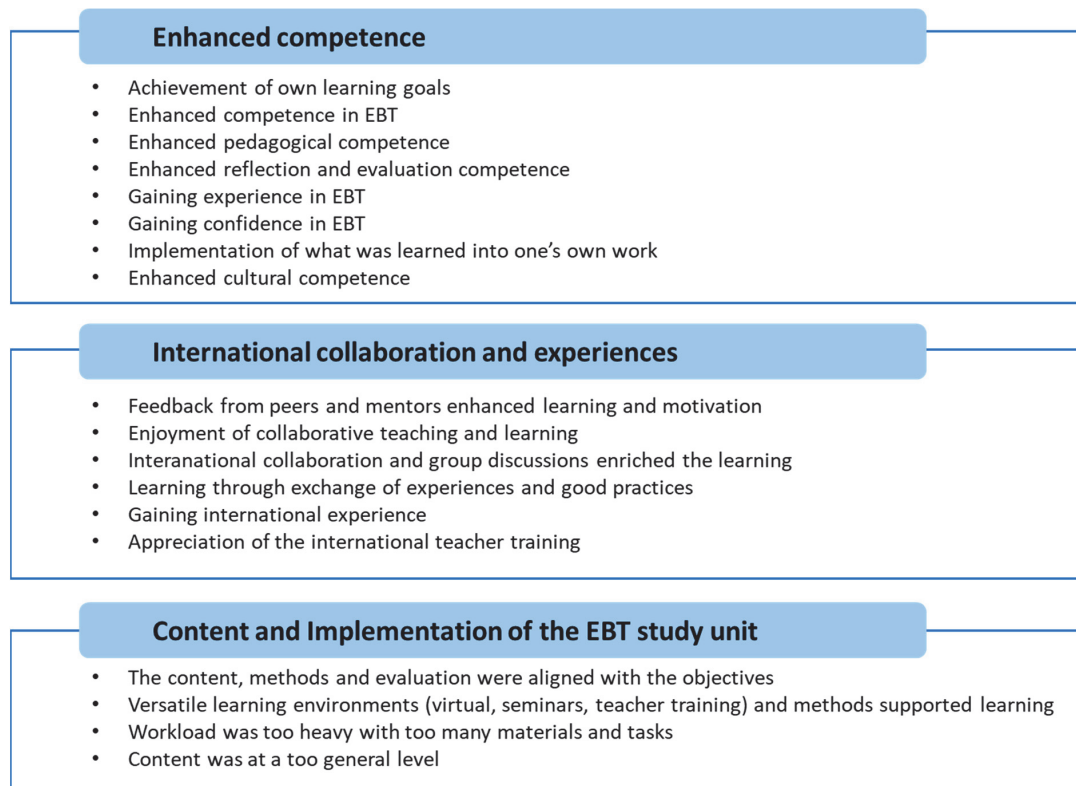
Enhanced competence
- Achievement of own learning goals
- Enhanced competence in EBT
- Enhanced pedagogical competence
- Enhanced reflection and evaluation competence
- Gaining experience in EBT
- Gaining confidence in EBT
- Implementation of what was learned into one's own work
- Enhanced cultural competence

International collaboration and experiences
- Feedback from peers and mentors enhanced learning and motivation
- Enjoyment of collaborative teaching and learning
- Interanational collaboration and group discussions enriched the learning
- Learning through exchange of experiences and good practices
- Gaining international experience
- Appreciation of the international teacher training

Content and Implementation of the EBT study unit
- The content, methods and evaluation were aligned with the objectives
- Versatile learning environments (virtual, seminars, teacher training) and methods supported learning
- Workload was too heavy with too many materials and tasks
- Content was at a too general level

Fig. 2. Experiences of participants after Evidence-Based Teaching

Table 5. Nurse educators' ethics and value base before and after Ethics and Nurse Educators' Work – study unit			
Nurse educators' ethics and value base N = 23, Pre n = 8, Post n = 8, response rate 34%	Mean (SD) pre	Mean (SD) post	Mode
Knowing the ethical principles guiding a nurse educator's work	4.13 (1.36)	4.50 (0.53)	5/4
Self-evaluated fairness towards others	4.61	5.00	5/5
Self-evaluated respect towards others	4.65	5.00	5/5
Perception of fairness of from others	4.19	4.57	4/5
Perception of respect from others	4.23	4.48	4/5
Fairness towards nurse educators in society	3.56 (1.24)	3.43 (0.79)	3/4
Respect of nurse educators' views in decision and policy making	2.89 (1.27)	3.28 (1.11)	2/2

Discussion

This is the first time a transnational European programme of this magnitude has focused on developing and evaluating the competence of nurse educators within Europe. This evaluation focuses on the perspectives of the user experiences and the utility of the programme. The study provides novel information on development and enhancement of nurse educator competence. Transnational perspectives provide an opportunity to understand and discuss, for example, the experiences, cultural differences, and attitudes to education, and to share good practices with each other. This kind of understanding is crucial for further development of the study programme and nurse educator education and CPD in Europe.

The aim of the study was to evaluate the utility of the Empowering the Nurse Educators in the Changing World (ENEC)

study programme and its components. Evidence from ENEC indicates that international nurse educator training increases subject knowledge and understanding – as indicated in a previous study (Salminen et al., 2016). During ENEC, participants gained confidence in evidence-based teaching, in their own competence, and in language proficiency. Competence in evidence-based practice, pedagogy, administrative and curriculum, digital pedagogy, networking and social issues, cultural issues, reflective practice, evaluation, and global health issues were enhanced during the study programme – which was also to be expected based on previous evidence (Koskimäki et al., 2021; Nokelainen et al., 2019). In addition, the ethical awareness and knowledge of ethical principles of nurse educators' work were enhanced during the programme. Nurse educators core competences in domain 6 – Ethical/legal principles and professionalism (WHO, 2016) specifically define skills, attitudes, and knowledge that an educator must develop during

their teaching activity. Nurse educators' knowledge of the ethical principles and their country's professional codes of ethics develops educators' ethical competence and improves their feeling of ethical competence (Fuster-Linares et al., 2023; Salminen et al., 2013a). Participants in the ENEC programme developed more awareness of ethical competence and addressed ethical dilemmas that go beyond the clinical setting, giving them a different perspective of how to teach ethics in nursing.

The European Commission policy action includes a European Sustainability Competence Framework (Bianchi et al., 2022). It is well known as a GreenComp framework, which identifies a set of sustainability competencies that need to form the basis of educational programmes. Nurse education needs to resonate with this priority and ensure that learners are developing knowledge, skills, and attitudes that challenge ways of thinking, planning, and acting with responsibility and care for our planet (as well as our global public health). In our results, there was lack of change in perception of the importance of global health issues, even though the participants evaluated all global health categories as important. It could be, that during a short study unit, significant changes in attitudes can not be achieved. However, the participants competence to teach the global health issues clearly increased, indicating that the content and methods used were beneficial for the participants.

The study programme was conducted mostly online, hence participants had to utilize several different communication channels, such as social media, video conferencing, and the learning environment for collaboration. Participants valued the safe and respectful environment for communication and collaboration, as well as being able to have frequent contact with other participants and mentors of the study programme, which is essential in web-based education (Akyol and Garrison, 2019).

Participants experienced some challenges with language, both from the perspective of understanding others and making oneself understood by others. However, they reflected, that their language proficiency increased during the programme – which was also the case in the study of Randall et al. (2020). Furthermore, the results show, that similarly to Randall et al. study (2020), cultural competence increased during the international study programme and participants found the international collaboration motivating for learning and future collaborations. The importance of increasing this competence in nurses can be perceived from the point of view that diverse groups of patients need culturally competent nurses (Campinha-Bacote, 2002). The workload of some of the study units and the whole programme was deemed too high and intensive. In the future, expanding the length of the study programme from nine to 18 months might be beneficial for the participants. It may also address the perception of an excessive workload when the work is spread out over time. Importance of optimal workload is strengthened by research that shows that nurse educators perceive an overly heavy workload as one of the worst aspects of their working life (Harri, 1997). Heavy workload in current changing working life is problematic in many European countries (Hunter and Houghton, 1993).

The strengths of this study are that the study programme was evaluated from start to finish. Several validated instruments were used to improve the validity of the study. Qualitative data offers a deeper understanding of the impact of the study programme and the study units from the participants perspectives.

Some weaknesses of the evaluation are that, for confidentiality reasons, participants were not followed individually throughout the study programme unit process. Consequently, the change in mean values could partially be due to different respondents answering the different surveys. Also, as this was a pilot of the ENEC international study programme, the number of participants in each study unit was low (20–40), and response rates varied from 27–85. This led to poor response rates to some of the measurements tools. In addition, due to small and varying respondent numbers, statistical significance was not evaluated, thus further studies on the effect of the study programme are needed.

Conclusion

The results of this study report the impact of the transnational European programme that focused on developing and evaluating the competence of nurse educators within Europe. During the Empowering Nurse Educators in the Changing World (ENEC) study programme, participants gained confidence in evidence-based teaching, their own competence, and in language proficiency. ENEC has also demonstrated the potential to be further developed for the purpose of providing a valuable resource for nurse educator education and continuing professional development (CPD). In the future, it is crucially important to identify the minimum competence requirements for nurse educators and suggestions regarding the development of these competences.

Ethical aspects and conflict of interest
The authors have no conflict of interest to declare.

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