## **GUEST EDITORIAL**

## Lifelong Learning to Meet the Needs of a Fast-Changing World in the Context of Digitalization: Focus on Europe

## Maria Mischo-Kelling

Faculty of Social Work, Health and Nursing, RWU Hochschule Ravensburg-Weingarten, University of Applied Sciences, Germany

The WHO Report "State of the world's nursing. Investing in education, jobs and leadership" (hereafter SOWN) clearly underlines the importance of investing in nursing's education to achieve a welleducated workforce which attracts sufficient numbers of young people. Furthermore, the report highlights the variation of nursing educational programmes worldwide. The report, released at the beginning of the COVID-19 Pandemic in 2020, estimated a nursing shortage of 5.9 million nurses worldwide (1). In February 2022, a policy brief commissioned by the International Centre of Nurse Migration (ICNM) calculated five scenarios regarding the percentage of nurses leaving the nursing workforce because of the impact of the corona pandemic they have experienced. In these scenarios, the percentage of nurses leaving the workforce ranged from 4% to 20%. The results show that the global nursing shortage will rise from 5.9 (2020) up to 7 million if only 4% of the given workforce will leave the profession or to 11.3 million if 20% of nursing workforce will do so (2). The SOWN report repeatedly refers to the linkage between nursing education, the possibility to work according to the competences acquired, the working conditions and the retention in the profession. This relationship must be considered more than ever before regarding the worldwide nursing shortage, which has been further exacerbated by the corona pandemic.

The SOWN report as well as the policy brief of the ICNM (1, 2) underline the precarious and vulnerable state of the global nursing workforce, restated again by the International Council of Nurses in a report published for the International Nurses Day (IND Report) in May 2022 (3). SOWN and the ICNM policy brief call for concerted action because measures taken in one country or continent will affect another country or continent. Therefore, actions taken need to be coordinated between and within continents at the international level.

Correspondence to Maria Mischo-Kelling, Prof. Dr., Faculty of Social Work, Health and Nursing, RWU Hochschule Ravensburg-Weingarten, University of Applied Sciences, Doggenried Str., 88216 Weingarten, Germany. E-mail: mischokelling@rwu.de

Europe, in which many high-income countries rely on nurse migration in various extent, must deal with a huge outflow of nurses who will leave the profession due to retirement within the next years (2). The needed measures to solve the nursing shortage will be tremendous and vary from one European country to another. Above all, countries are slowly beginning to realize that they must be prepared to respond adequately to today's worldwide challenges such as pandemics, a rising burden of non-communicable diseases, natural disasters such as forest fires, draught, high temperatures (climate change), floods and wars. Finally, all countries have to cope with the digitalisation of the health care sector. All these developments require from health care professionals, including nurses, not only adapting already acquired competences, but also the acquisition of new competences (4-6).

The SOWN report (1) calls governments worldwide to invest in nursing education to attract new candidates for nursing and to prepare the profession for the changing demands. In Europe, the idea of a European Higher Education Area has emerged in the late 1990s and has led to the Bologna Declaration in 1999 (7). The Bologna Process encompassed the European-wide transformation of higher education initially into two study cycles at the level of Bachelor's and Master's, and expanded to three study cycles which included the Doctoral Degrees. The final updated framework for qualification in the European Higher Education Area encompasses the short cycle and the three cycles mentioned above (8). For the nursing profession, the Bologna Process has created the chance to move vocational nursing training into Higher Education (HE).

The developments achieved in reforming nursing education after more than 20 years of the Bologna Process vary across the European countries (7, 9). The variation in the developmental path of nursing education is rooted in each country's history of nursing and reflects amongst others the political representation of the profession at the country level, the power of diverse interest groups, etc. (10). In Europe, from North to South and from West to

East, all countries have taken up the opportunities related to the Bologna Process to raise nursing at the academic level, develop and improve the profile of nursing science, and enrich the profession in different ways. In some countries, such as Germany or Austria, the transformation of nursing education from vocational to higher education is still going on (9–11).

One initiative, spurred by the Bologna Process and supported by the EU, was the Tuning Project (Tuning Educational Structures in Europe) initiated in 2003 with representatives from 12 Higher Education Institutes of different European countries. This university-driven project aimed to offer a concrete approach to implement the Bologna Process at the level of higher education institutions and subject areas. The Tuning approach consists of a methodology to (re) design, develop, implement, and evaluate study programmes for each of the Bologna cycles (12).

Nursing was one of the nine disciplines that took part in this project. The working group, coordinated by Mary Gobbi, developed a framework serving as orientation for curriculum development and as a reference point (13). The updated and final version "TUNING Guidelines and Reference Points for the Design and Delivery of Degree Programmes in Nursing" is the outcome of a follow-up project, called Tuning CALOHEE-project, and it reflects the EU directive 2013/55 and combines the European Qualification Framework as well as the European Qualification Framework for Lifelong Learning (14).

The working group developed the Tuning Qualifications Reference Framework (Meta-Profile) of General Descriptors of a Bachelor's Programme in the Subject Area of NURSING (SQF) which aligns to the Qualification Framework of the European Higher Education Area (QFEHEA). The SQF consists of five domain dimensions. Each domain consists of subdimensions. The SQF domain dimensions refer to the QFEHEA cycle descriptors as well as to the three qualification descriptors: (1) knowledge, (2) skill, and (3) responsibility and autonomy of the European Qualification Framework (EQF). The SQF domain dimensions are: (1) knowledge and cognitive competence, (2) nursing practice and clinical decision making, (3) professional values and the role of the nurse, (4) communication and interpersonal competences, and (5) leadership and team working (14).

Referencing to this issue of NERP journal, I notice that Domain 2 "Nursing practice and clinical decision making" is relevant for one of the four articles. Under this competence statement, we find the notion that nurses should be able to safely administer medicines and other therapies (14).

The article by Jolanta Pupure and colleagues (2022) addresses graduating nurses' medical competence. The focus of the article is an innovative digital learning tool, the eMedication pass, intended to facilitate the medication competence of graduating nurses. The study by Jolanta Pupure and colleagues (2022) aimed to know the opinion of nursing students, mentors and teachers from three Baltic countries about the use of the eMedication Passport in clinical practice.

Since the classical publication by The Institute of Medicine (15) "To err is human: Building a Safer Health System", medical errors have been a top issue regarding patient safety and measures taken for preventing them. Against the backdrop that nursing education in the EU is not yet at the same level, it is interesting to find out how the same learning tool for acquiring medical competence has been used. For me, as a reader of the study, it was interesting to learn that the use of the same tool in clinical practice was perceived differently by the three target groups (students, clinical mentors, and teachers). Even if it could be assumed (as I did) that the three Baltic countries (Latvia, Estonia, Lithuania) may have some common ground, cultural and possibly educational differences seem to play a vital rule in competence acquisition. Another crucial issue seems to be the interaction between the three target groups, i.e., how teachers and clinical mentors are convinced of the tool and how they promote and demand its use in clinical practice. Comparative studies about competence acquisition are highly important, since they help to understand how the development of competence differs in various countries. Knowing what is going well and what are the obstacles in various countries may eventually lead to a better understanding of the cultural, political, and legal conditions of nursing education and practice, and to gain knowledge for the aspired harmonization of nursing education in the EU. The importance of cross-national, comparative studies for the development of nursing within the EU is also underlined in a recent European study regarding "Medication calculation skills of graduating nursing students within European context" (16).

Another article in this issue presented by Meri Vähäkangas and colleagues (2022) deals with the continuing education of teachers in the field of social, health and rehabilitative care. It examines continuing education from a general point of view in a part of northern Finland and takes up the topic of lifelong learning related to professional development. By reading the results of the article I readily empathised with the colleagues interviewed. The interviewees underline that continuing education is important for their own professional development as well as for being able to meet today's require-

ments. Balancing the daily demands of teaching with the never-changing requirement to be up-todate regarding one's own subject and pedagogical knowledge and competence and being at the same time in contact with nurse practice seems to be a challenge. Continuing education needs space, the necessary time, support as well as sufficient resources. This seems especially to be the case with regard to digitalisation, that is, the use of digital devices or online-platforms which not only change the relationship between teacher and students, but also how a subject content is presented and how it stimulates students' learning processes and competence development among other things (17).

Regarding high quality education, knowledge about the roles of teachers, their work assignments and the condition for continuing education would be another valuable study area for comparative cross-national studies in the field of health and social care. For example, understanding und learning about how continuing education is organized in these fields within the EU could eventually contribute to comparable conditions. A recently published paper by Salminen and colleagues (18) goes in this direction. It examined the connection between the competence of nurse educators and nurse students in six European countries. The publication by the WHO (19) "Core competencies for nurse teacher" could be a good starting point for comparative stud-

In Europe, lifelong learning in a fast-changing world and in the context of digitalisation is a requirement for every nurse in any nursing practice field if the nursing profession is to play an active role in shaping nursing and health care education as well as nursing practice for the future. To provide adequate support to nurse teachers and to overcome inequalities among health care professionals in the EU region is of vital interest if the EU aims at preparing enough of well-educated health professionals. A first step could be to understand the teacher's role in the fast-changing field of health care and health care education. In practice we need to be sure that we suggest comparable conditions for teaching within the EU with the adequate proportion of teaching hours, time for research and publication, time for the continuing development of the study programmes (curriculum, teaching content, study programmes and modules, cooperation within faculty and with other Higher Education Institutions at the regional, national, European and international level, advising/counselling and accompanying students, supervising final theses, assigning the functions within the university/faculty, etc.). Knowledge about these issues could guide health policy and the education of health care professionals.

The focus of the paper written by Donna-Marie

Bloice, Adele Baldwin and Clare Harvey (2022) addresses a vulnerable patient group whose need can be easily missed. Not every country has First Nations people as, for example, Australia has. Anyway, world-wide nurses are confronted with vulnerable patients or vulnerable population groups. This paper addresses many issues of patients' transition from one setting into another, in this case from the forensic mental health setting (prison) to the community setting, especially after discharge. The article reminds us that it is crucial to keep the health care needs of diverse vulnerable patient groups in mind and not simply lump them together. Furthermore, the article makes it clear that measures to improve the health situation of these patients/clients must be meaningful for those affected, i.e., oriented to the individual person. They must consider the life-circumstances of the patient, their health literacy and, finally, their capability to care for themselves and for those who depend on them. Nurses and other health care professionals must be sensitive to the specific needs of the patient groups they care for. Since needs are not stable but are changing during the life course and due to changes in society, health care professionals must be willing to learn about the specific needs of persons in their care to tailor nursing intervention accordingly, as the Nurse Navigator model of care suggests. Besides the Nurse Navigator Model mentioned in the paper by Bloice and colleagues, I would like to direct the reader's attention to another transitional discharge model developed by Cheryl Forchuk and colleagues in the area of mental health (20).

The work by Zalanskienė and colleagues also takes up the issue of vulnerable patient groups, in this case children aged 0-6 years with neurological developmental disorders (NDD). The focus of the scoping review is telehealth, that is, the application of communication technologies, and early intervention (EI) to identify children at risk for poor health outcome and/or to provide support services for them. The results of the review were grouped under two themes on how telehealth is useful for identification and provision of interventions or education programs. The results of the review illustrate that, especially for the studied group, telehealth can not only provide an opportunity to assess the health problem of children with NDD aged 0 to 6 years, but also to offer care tailored to the health needs of the affected children and their parents. The review further reveals existing research gaps in this special field.

The articles collected in this volume all tackle central issues that will shape health care in the future. These are mainly chronic diseases occurring along the life course which need to be integrated into life by patients. As the Corona pandemic demonstrated,

infectious diseases with long-lasting courses will also play a role. All these diseases present a challenge for those affected as well as for their families or significant others, as two of the articles in this volume demonstrate. In this context it is becoming increasingly evident that a person-centred rather than a disease-oriented approach to health care is required to address the health needs for chronically ill people and vulnerable patient groups appropriately. One strategy among others to move in this direction is seen in the digital transformation of the health care sector. In this respect, the EU health sector lags behind other industries, as a recent published working paper by the OECD illustrates for the EU countries (6). The digital transformation as well as health, societal and political challenges of today, all require a critical review of existing educational programmes for all health professions.

The notion of world-wide harmonisation of the education of all health care professionals including medicine was put forward in a paper of the OECD

## References

- World Health Organization. State of the world's nursing 2020: investing in education, jobs and leadership [Internet]; 2020 [cited 2022 Sep 3]. Available from: URL: https://www. who.int/publications/i/item/9789240003279
- 2. Buchan J, Catton Howard SF. Sustain and Retain in 2022 and Beyond: The Global Nursing Work Force and The COVID-19 Pandemic: International Council of Nurses; International Centre on Nurse Migration; CGFNS International [Internet]; 2022 [cited 2022 Sep 3]. Available from: URL: https://www.icn.ch/publications
- Stewart D. Nurses: A Voice to Lead: Invest in nursing and respect rights to secure global health: International Council of Nurses [Internet]; 2022 [cited 2022 Sep 9]. Available from: URL: https://www.icn.ch/what-we-do/campaigns/ international-nurses-day
- Booth RG, Strudwick G, McBride S, O'Connor S, Solano López AL. How the nursing profession should adapt for a digital future. BMJ 2021:n1190.
- Blandford A, Wesson J, Amalberti R, AlHazme R, Allwihan R. Opportunities and challenges for telehealth within, and beyond, a pandemic. Lancet Glob Health 2020;8(11):e1364e1365.
- Socha-Dietrich K. Empowering the health workforce: Strategies to make the most of the digital revolution [Internet].
  OECD 2021 [cited 2022 Sep 7]. Available from: URL: https://www.oecd.org/publications/empowering-the-healthworkforce-to-make-the-most-of-the-digital-revolution-37ff0eaa-en.htm
- Nilsson J, Mischo-Kelling M, Thiekoetter A, Deufert D, Mendes AC, Fernandes A, et al. Nurse professional competence (NPC) assessed among newly graduated nurses in higher educational institutions in Europe. Nordic Journal of Nursing Research 2019;39(3):159-67.
- 8. EHEA Tools [Internet] [cited 2022 Sep 9]. Available from: URL: http://www.ehea.info/page-tools
- Koff SZ. Nursing in the European Union: anatomy of a profession. Vol. 1. New Brunwick: Transaction Publishers; 2016.
- 10. Rafferty AM, Busse R, Zander-Jentsch B, Sermeus W, Bruyneel L, editors. Strengthening health systems through nursing: Evidence from 14 European countries [Internet].

(21) about changes in the health care landscape from fragmented and disease-centred care towards integrated and person-centred care. Future health care professionals must be prepared to meet the dual challenges of technically and emotionally complex healthcare workplace (21). The authors identified transversal skills such as interpersonal skills, personcentred communication and interprofessional teamwork which every health care professional should possess working directly with patients.

Reflecting the paper discussed in this editorial, a radical transformation of the education of health care professions including nursing needs to be set in motion without wasting too much time. This urgency is stressed in the conclusion drawn in the IND report (3): "What is needed is concerted government action that follows a bold, brave, and decisive ten-year plan. A plan that is fully funded, has clearly defined actions and measurable outcomes, and will support and strengthen nurses and the whole healthcare workforce to deliver health for all is required" (3, p. 57).

- Copenhagen (Denmark): European Observatory on Health Systems and Policies; WHO Regional Office for Europe; 2019. (Health Policy Series no. 52).
- 11. Them C, Wetzlmair J, Schulc E. Die Bildungspyramide der Pflegeberufe in Österreich. In: Sahmel K-H, editor. Hochschuldidaktik der Pflege und Gesundheitsfachberufe. Berlin, Heidelberg: Springer Berlin Heidelberg; 2018. p. 131-40.
- González J, Wagenaar R, editors. Tuning educational structures in Europe. 2nd ed. Bilbao, Groningen: University of Deusto; University of Groningen; 2008.
- Gobbi M. Reference points for the design and delivery of degree programmes in nursing. Bilbao: Deusto University Press D.L.; 2011. (Tuning educational structures in Europe).
- 14. University of Groningen. TUNING Guidelines and Reference Points for the Design and Delivery of Degree Programmes in Nursing [Internet]; 2018 [cited 2022 Sep 3]. Available from: URL: https://www.calohee.eu/brochures/
- 15. Kohn LT, Corrigan JM, Donaldson MS, editors. To Err is Human: Building a Safer Health System. Washington (DC): National Academies Press (US); 2000.
- Elonen I, Salminen L, Brasaité-Abromé I, Fuster P, Kukkonen P, Leino-Kilpi H, et al. Medication calculation skills of graduating nursing students within European context. J Clin Nurs 2022;31(5-6):548-58.
- Nes AAG, Steindal SA, Larsen MH, Heer HC, Lærum-Onsager E, Gjevjon ER. Technological literacy in nursing education: A scoping review. J Prof Nurs 2021;37(2):320-34.
- Salminen L, Tuukkanen M, Clever K, Fuster P, Kelly M, Kielé V, et al. The competence of nurse educators and graduating nurse students. Nurse Educ Today 2021;98:104769.
- 19. World Health Organization. Nurse educator core competencies [Internet]; 2016 [cited 2022 Sep 3]. Available from: URL: https://www.who.int/publications/i/item/nurse-educator-core-competencies
- Forchuk C, editor. From therapeutic relationships to transitional care: A theoretical and practical roadmap. New York: NY; Routledge; 2021.
- 21. Maeda A, Socha-Dietrich K. Skills for the future health workforce: Preparing health professionals for people-centred care. OECD Health Working Papers, No. 124. Paris: OECD; 2021.