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Chapter 7: Evolving Nurse Education According to Future Needs

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INTRODUCTION

In designing a curriculum for nurse education, it is important to be able to integrate knowledge about critical issues and important topics into nursing education as well as utilising pedagogically relevant methods to deliver the education. Nurse educators when educating future nurses or other healthcare professionals should be able to respond to the changing needs in the healthcare system. Nurse educators should have competencies in management, leadership, and advocacy along with the skills necessary for designing, implementing, evaluating the management of curricula. Furthermore, subject competence as well as pedagogical competence remain important, despite new demands on these competences as a consequence of societal and health care changes. Various measures (for example: The Health and Social Care Educator's Competence – HeSoEduCo; Mikkonen et al., 2020) may be used in self-evaluation by nurse educators to evaluate their competence.

In this Chapter we focus on the content of critical issues in future nursing education both from the perspective of the pedagogy and the future health service requirements, and the competencies required to adapt to the potential changes that future may bring.

EDUCATORS' ROLE AND CAPACITY TO ADAPT TO FUTURE CHALLENGES IN NURSING EDUCATION

An important basis for changing and improving nursing in the 21st century is for high quality and effective education (World Health Organization [WHO], 2016, 2021). There have been constant changes and developments in nursing and midwifery education and also, other health care professionals' education. The quality of education relies largely on well-prepared and competent nurse educators (WHO, 2021). It is necessary that the professional education of nurses is able to constantly keep up with new issues and trends. In education, it is necessary to address new developments systematically: harmonise competencies with the needs of patients and the population; promote team cooperation; gender equality in

professional status; more community-based and primary care; and interdisciplinary cooperation and communication (Frenk et al., 2010). Nursing curriculum must be flexible, evidence-based and synergise with progress in providing health care (WHO, 2021).

In the face of a rapidly changing social environment and increasing demand for healthcare services, academic nurse educators should have an expert-level of competencies to continuously improve the level of nursing education (Sato et al., 2020). Nurse educators should be able to respond promptly to and reform curricula reflecting the solutions for current and anticipated issues and trends in providing health care (WHO, 2016).

Changes in future nurse education may be perceived as four basic pillars (1) reconciling the shortage of nurses with expertise in public health and health equity, (2) creating policies that include and promote the tenets of diversity, antiracism, and well-being, (3) designing curricular resources and activities that address contemporary issues, and (4) creating and supporting an ethos that invites, retains, and graduates diverse students and facilitates a sense of belonging, our future nursing graduates will be prepared to advance health equity for all (Sumpter et al., 2022).

Inadequate nurse educator training is one of the topics discussed as a challenge facing nurse education. New nurse educators enter the academic environment with far less formal preparation for teaching, and the transition from nurse to nurse educator is considered difficult (WHO, 2021; Kenner, 2018; Schoening, 2013). Nurse educator transition is a theoretical model that describes the process of role transition from nurse to nurse educator. The model recommends integrating formal pedagogical education in to nurse educator education and developing evidence-based orientation and mentoring programmes for novice nurse educators (Schoening, 2013).

Managing complex changes in nurse education, leader nurse educators may use the so-called Kotter's principles of change: (a) including selecting leaders whilst engaging as many members as possible within the organization's effort, (b) ensuring the organization is emotionally compelled to want change, (c) demonstrating inspirational and motivational leadership, and (d) ensuring the network for change and organizational hierarchies work together with a seamless transfer of information during the process (Kotter, 2012).

FUTURE ISSUES IN NURSING EDUCATION

In designing curriculum for nurse education, it is important to be able to implement new knowledge to address future challenges (Figure 1).

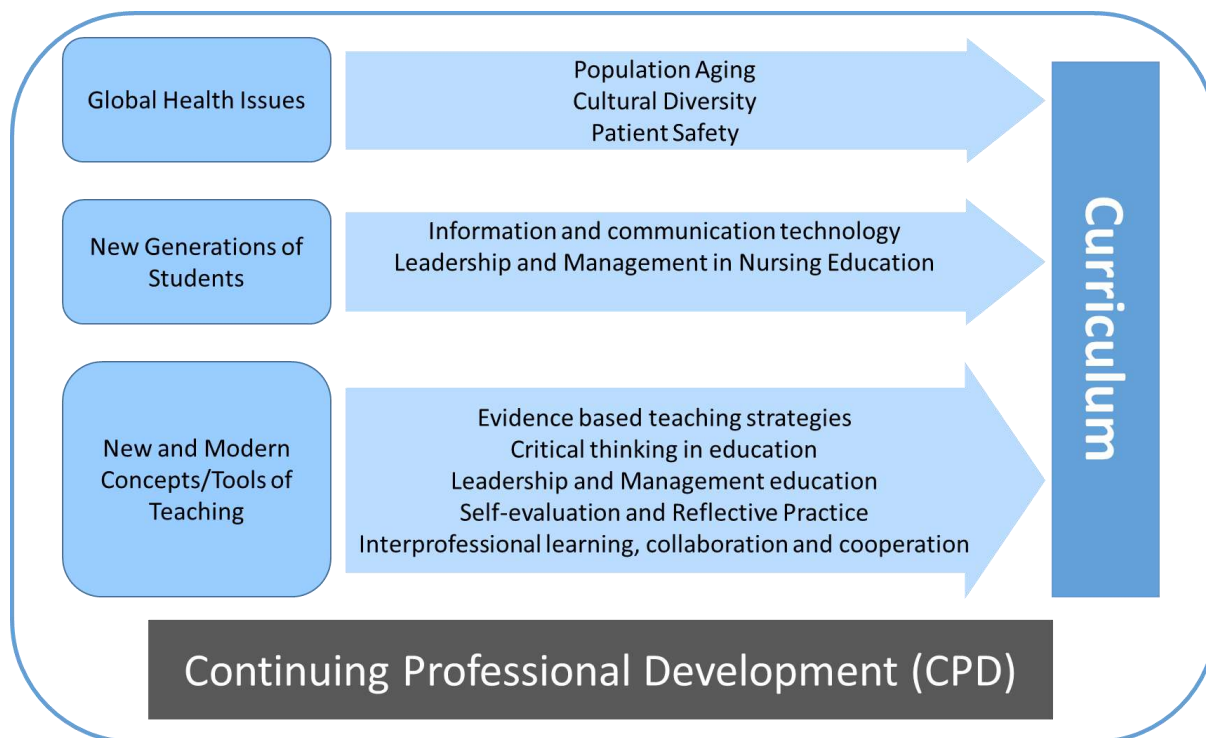


Figure 1. Future issues in curriculum design

Global health issues as important topics in future nursing education

Global health issues, management and leadership in nursing and nursing education, digitalisation of society, nursing, and education along with preparing for generations Y, Z and Alpha, are some of the challenging issues that are linked to future nurse education. Furthermore, patient safety, cultural diversity and shift in population demographics are challenging issues that will need to be a focus in the future. Nurse educators also need more tools, to be able to tackle the changing demands of nursing and nursing education.

In respect of the huge demographic changes and multicultural social revolution happening around the world, the trends in nurse education must adapt to new, global challenges resulting from the changing environmental, population, geographic and ethnic conditions (Tsai, 2020). Global health challenges and especially sustainable education are addressed separately in the chapter 5.

Population aging and the gerontology

The exponential increase in the proportion of the older population and its demands on health care play a crucial role in the need for nurse education so that care can be provided to this target group.

Better comprehension of the diversity of the ageing process and the context that has affected older people might motivate nurses to implement a holistic, respectful approach. It

is necessary to break the stereotypes about ageing and encourage improved integration of older people into social and health care facilities (Dahlke & Hunter, 2022).

Trends noted include planning to offer and retaining required stand-alone geriatric/gerontology courses. These results may be useful to nurse educators and researchers who are grappling with nursing education issues concerning geriatric and gerontology preparation. Of importance is that nursing curricula reflect nursing faculty's commitment to addressing the health care needs of the increasing number of elderly persons in society (Gilje & Moore, 2007).

Cultural diversity

With increasing migration and globalisation in the world, it is necessary for educational institutions and the nursing profession to focus their attention on education to improve the students' knowledge when providing nursing care for patients and communities with a variety of cultural backgrounds (Bednarz et al., 2010).

Cultural competence is a continuous process of cultural awareness, knowledge, interaction, and sensitivity among caregivers. It is the continuous acquisition of skills, practices, and attitudes that enables nurses to transform interventions into positive health outcomes (Nelson et al., 2016).

Nurse educators have a privileged position to assist students in the development of cultural competence through various teaching methods. To help students' form cultural competence, students must appreciate cultural diversity of patients through the education process. Diverse groups of patients (related to gender, race, ethnicity, culture, and age) need culturally competent nurses (Campinha-Bacote, 2002).

Culturally competent nursing education is the process of adapting teaching and learning techniques in a way that values, empowers, and accommodates nursing student diversity (Bednarz et al., 2010). It begins with an assessment of the learner's needs and includes student interactions, in-class and online considerations, curricula and policy development. Nurse educators need to be committed to lifelong learning (Smith, 2013). The purpose of the evaluation of cultural diversity is to identify attitudes and perspectives regarding cultural sensitivity in order to help people become aware of and understand their own prejudices and biases, and to help people understand the potential consequences of own approach to diversity in the workplace and education.

Integration of teaching methods and activities in the education process (Mapping My Community, Rituals and Traditions, Interview and Investigate, The D.I.V.E. Method, Non-Verbal Communication, Conflict Styles) facilitates more inclusive, acceptable intercultural nurse education. Competent learning environments translate into a more successful fulfilment of the educator's promise to future generations of nurses who perform skilled nursing care within a diverse world (Smith, 2018).

Patient safety

Patient Safety is a growing global phenomenon. Do No Harm is a basic ethical principle that underpins health care delivery. Patient safety education for the healthcare workforce has emerged as an important tool in safeguarding patient welfare (WHO, 2011).

Early introduction of patient safety principles to nursing students has a significant influence on the development and formation of their long-term knowledge, skills, and behaviour in the scope of patient safety (Patient Safety and Quality Care Group of European Commission, 2014).

Internationally, there are two frameworks that integrate the plan and development of education on patient safety in curricula in the field of nursing. They include the WHO Multi-Professional Patient Safety Curriculum Guide, which was published in 2011, and the Quality and Safety Nurse Education Framework; they must be adapted to fit the unique cultural and educational contexts of local academic environments (WHO, 2011; Sherwood & Barnsteiner, 2012).

The important steps to improve skills, knowledge, and attitudes of future nurses on patient safety include the development of accreditation of nursing baccalaureate programme at the national levels (Browne et al., 2009). Defining the topics and skills related to the integration of attributes (Knowledge, Skills and Attitudes) for each competence is considered to be the key direction in nurse education based on patient safety competence.

One of the key strategies in nurse education is to enable transformation through teaching methods. Students are more involved in the learning process in accordance with the Inquiry-Based Learning. It is the learning process in which students have better control over the selection of a goal, extent or topic of their learning while acquiring interpersonal, educational and communication skills, and team and professional work (Kong et al., 2014).

There is the need for enough competent educators familiar with modern conceptions related to education on patient safety. The basic ambition of educational interventions is to condition, make a change and solve problems adequately (Mansour, 2013). Understanding patients' needs in the unique educational and cultural contexts of students is crucial for providing high-quality education on patient safety (Aggarwal et al., 2010).

Undergraduate nursing education represents an important venue for providing future generations of nurses with the patient safety skills fit for the 21st century. Efforts to introduce patient safety in nursing education are both necessary and timely, and should accommodate students' unique needs and cultural context (Mansour et al., 2018).

New generation of students (including gen Y, Z and Alpha and cultural diversity)

The new generations of students need an innovative, up to date approaches. Among other things, the overall population of students of nursing is becoming more and more diverse regarding cultural, social or value differences. It is also necessary to consider the generation gap between students and educators as a factor influencing the educational process. Promoting interaction between educators and students is essential and makes the process more effective and better (Koohestani et al., 2018).

Information and communication technology

Contemporary society places high demands on abilities of individuals to work effectively with new information and information resources. Development of science and technology, the fast pace in development of new technologies penetrates all areas and is becoming a part of our everyday life. Based on these dynamic changes in society, the necessity of fundamental change in the education system is crucial (Strandell-Laine et al., 2018).

The challenge for future education is the use of *modern information technology*. Information and communication technology increasingly influence the provision of education and is attractive to modern students who have been confronted with the use of technology since an early age (Duncan et al., 2013). The virtual learning environment may serve as a communication base for students, teachers, and nurse supervisors (Salminen et al., 2010).

One of the innovation methods is *mobile learning* that allows learning to take place independent of geographic barriers and time constraints. It guarantees that students have access to learning materials in multiple contexts with various cultural and environmental stimuli necessary to understand the educational content. Furthermore, it facilitates social interaction between students and teachers through mobile applications (Nielsen et al., 2020).

Another reform in nursing education that brings a higher level of competency and knowledge in nursing practice by nurse educators who are able to induct transformational leadership into the profession through a conception of *simulation* and other educational strategies (Fawaz et al., 2018).

Implementation of simulation methods in the teaching process is an important teaching strategy for improving the quality of education of nurses. The use of simulation methods in teaching is attractive for students. It creates a space to apply theoretical knowledge and practical skills, develops students' critical thinking and at the same time gives space for immediate feedback and teacher's response. The simulation of real clinical cases improves mutual communication and enables practicing cooperation in a multidisciplinary team. Repeated opportunities to practise solving a clinical situation in a safe environment, creates space for learning and increases student confidence.

The *virtual reality*, designed as structured learning experiences, can replicate high-risk clinical experiences for nursing students to practice skills repeatedly without putting patients at risk (Nielsen et al., 2020).

In the present, most students belong to the group of people referred to as millennials, Net Generation, or Generation Y. This generation of students perceives the use of *social networks* in education as a positive element, as they are a common part of their lives (Abe & Jordan, 2013). Nurse educators should take on a new challenge and use social media tools to streamline the education of students of healthcare professions, and also improve the patient opportunities in their care (Salminen et al., 2010). In education, social media offers teachers an effective way for communication, cooperation, and connection with students in real time. Interesting models in the education of nurses are social media platforms such as blogs, Twitter, Instagram, Facebook, YouTube, Reddit, Khan Academy, Pantoon, Canva, Mentimeter, Quizzis, Speaker, Flipgrit or games where they need to provide healthcare and improve their critical reflection, decision-making skills, dialogue, and self-efficacy.

Nurse educators need more training on and experiences with the use of social media (Tuominen et al., 2014). Also, nurse educators should know how to evaluate the pedagogical usability of digital learning material, taking ethical principles into account (Duncan et al., 2013). International collaboration is essential for the digital transformation of nursing education.

The advances of information technology, such as mobile apps, offer attractive possibilities for designing more effective learning materials in multimedia environments that may encourage individualised learning and enable efficiency gains for learning achievement. The mobile apps provide an interactive and individualised opportunity to practise instructional procedures (Strandell-Laine et al., 2018).

Leadership and management in nursing education

The development of leadership is a key part of nurse education. Nursing leadership is identified by The International Council of Nurses [ICN] (2014) as one of the five core values guiding nursing activities. The Clinical Leadership Competency Framework (CLCF) includes five core domains that could improve nursing management: "demonstrating personal qualities", "working with others", "managing services", "improving services", and "setting direction". This framework is a useful tool for quality improvement within health care (National Health Service [NHS], 2011).

There has been, and still is, a problem with understanding and awareness of the meaning of leadership in nurses in practice to improve the quality of care provided and to facilitate effective care (Yoder-Wise, 2012). The need to integrate leadership in to nurse education at the bachelor level has been necessitated by several important factors, such as rapid changes in the healthcare system, staffing shortage, increased requirements for quality of provided

health care (Miles & Scott, 2019), as well as new diseases and technological progress (Démeh & Rosengren, 2015).

The (Changing) Faces of Nursing Leadership and its importance is described by Charalambous (2023) also in regard of the changing character of the health and treatment care provided often with many innovations. Nurses need leadership competency as they are often the ones who decide about introducing new innovations or propose new processes in patient care.

Nursing work is complex because it needs to coordinate requirements from many parties including colleagues, managers, and patients and their relatives. Clinical leadership is a valuable tool to overcome a gap between theory and practise in nursing. Leadership skills in care management clarify and simplify nursing activities and facilitate the transition from student nurse to staff nurse (Démeh & Rosengren, 2015).

Dynamic challenges of health care require understanding self-efficacy of leaders in nursing; furthermore, their academic training in leadership and further development in leadership are important. Nurses are encouraged to be leaders in proposing implementations and evaluating the healthcare system. Therefore, nurses must have strong leadership skills across the spectrum of nursing from clinical care at the bedside to health policy (Moran et al., 2021).

Early involvement of nursing students in leadership may inspire them to actively participate in leading later in their later careers and provides invaluable nursing perspective to healthcare organisations (Sumpter et al., 2022).

NEW AND MODERN CONCEPTS OF TEACHING – TOOLS FOR FUTURE EDUCATORS

Changing the approaches of traditional education as well as implementing new and modern concepts for teaching is key for the education of nurses (Strandell-Laine et al., 2018).

Nursing education is a field that is constantly changing and undergoing transformation, from conventional classrooms to web-based clinical teaching (Fawaz et al., 2018).

Transformative learning is a proposed outcome of educational reforms. It is learning through a three-level transition from informative to formative to transformative learning. Informative learning involves acquiring knowledge and skills (professional scope). Formative learning involves socialisation (professionalism). Transformative learning involves the development of leadership. Effective learning builds each level on the previous one. The learning outcomes are three basic transitions: 1) from memorising facts to searching, analysing and synthesising information for decision making; 2) from seeking professional credit to achieving key competencies for effective team work in healthcare systems; and 3) from uncritical adoption of educational models to the creativity of adapting global sources to address local priorities (Frenk et al., 2010).

Evidence-based teaching strategies and critical thinking

Another area in nurse education that requires change is the implementation of evidence-based teaching strategies. It is very important to apply this concept to nurse education properly, as stated in chapter three of this book. The main aim is to incorporate critical thinking and the concept of evidence-based teaching into the teaching of future nurses; empowering the future nurses to make decisions based on the best and most reliable evidence at that time.

Teaching research and conducting discussions about the credibility of evidence supported by research is essential to gain the ability to implement evidence-based nursing in practice. The support of the educators is particularly crucial at this point. Nurse educators need to be competent in practical evidence acquiring and appraising and they need to value the evidence-based teaching and practice. Furthermore, they need to be aware of their potential impact on knowledge acquisition, such as critical thinking, decision making, and competencies that are essential for modern nursing students (Breytenbach et al., 2017).

Patients' role in education

Patient involvement in the partnership in decision making about their own care is crucial in providing high-quality health services that respond to patients' individual needs and possibilities (Salminen et al., 2010).

It is also important to involve patients in nurse education because patient as a mediator of experience adds a new dimension to the understanding how students learn in the clinical setting. Patients have a clear, but different views of the quality of care provided (Stockhausen, 2009; Debyser et al., 2020).

Relationships with patients as experts on their own disease are considered valuable and crucial in the development of skills that all health professionals, including nursing students, need in their work with patients. They provide students with the opportunity to experience clinical reasoning and practise clinical skills in interaction with patients.

Suikkala et al. (2018) state that the relationships between students and patients are important to meet patients' health needs, and thus to increase the quality of care for patients.

The studies define three types of relationships between students and patients: the mechanistic relationship focused on student's educational needs; the authoritative relationship focused on what the student assumes is in the best interest of the patient; and the facilitative relationship focused on the common good of both the student and the patient. Students perceived their relationships with patients mostly as facilitative and authoritative rather than mechanistic; on the other hand, the patients' evaluation suggested the authoritative relationship as the most frequent and the facilitative relationship as the least frequent (Suikkala et al., 2018).

The clinical educational settings that support facilitative relationships through a dialogue between students and patients are very important and in accordance with the evidence-based person-centred approach (Håkansson-Eklund et al., 2019; Jylhä et al., 2017).

The patient-centred orientation of education should be the basis of the content of education. It is necessary to move from the traditional and paternalistic ways of providing care to active and collaborative patient involvement in education. The collaborative patient involvement in education will support efforts to equip nursing students so that they provide a truly close and empathic relationship-based care (Suikkala et al., 2018; Scammel et al., 2016; Manninen et al., 2014; Towle et al., 2010). Furthermore, it facilitates the integration of students' academic education in real settings, and thus increases the quality of clinical education (Suikkala et al., 2018).

In student education and evaluation, it is important to accept the value of patients' opinions in relation to their perceptions of nursing care provided by students, as well as students' competences, such as compassion and communication skills. Through patient involvement in education, students become more sensitive mainly to the needs of the vulnerable groups. Students state increased self-confidence and decreased anxiety when they learn clinical skills from patients – teachers because they get immediate feedback in a non-threatening environment (Towle et al., 2010; Tew et al., 2012).

The focus of education on the relationship between students and patients provides patients with many opportunities to enhance their own autonomy and expertise in self-care. Patients may enrich students' clinical training and evaluation, provide useful information to improve clinical training, and thus form students' self-efficacy and competence in providing holistic nursing care (Dijk et al., 2020, Suikkala et al., 2018).

Nurse educators play a key role in promoting a dialogue between patients and students. There is a need for the development and application of new ways of active patient involvement in education, as well as in spreading examples of good practice that inspire students to patient-centred learning (Gibbons et al., 2002; Scammel et al., 2016).

There has been an agreement that patients' knowledge should be actively used in clinical training of nursing students (Suikkala et al., 2018).

Patients' unique perceptions of care provided may contribute to precise evaluation of students' performance in practice (Gibbons et al., 2002; Scammel et al., 2016).

Patients' participation in nurse education may be the next step in the development towards individual-centred health care and education (Debyser, 2020).

Leadership and management programme/education

Leadership in nursing is a process for positive impact through nurses' engaged decision making to support nurses, patients, and the healthcare environment (Bleich, 2011). This definition has influenced the conceptualisation of the theoretical leadership development

model in nursing. Miles & Scott (2019) introduce an integrated leadership development model for nursing students as a basic skill of nursing practice. They stated nine leadership skills that are crucial for the leadership development model in nurses. The leadership development model in nursing is a concept map for leadership development in nursing students to support students' ability to internalise leadership and to support applying leadership skills in new nurses at the start of their nursing practice (Miles & Scott, 2019). The leadership development model offers a schematic interpretation of leadership in nursing and the authors recommend using it when creating a curriculum in leadership education in nurses.

In leadership education it is important to focus also on acquiring information, perceiving self as a leader, and the need to act (Komives et al., 2013). They are focus areas of knowledge, action and being that must be included in leadership education developed by Snook et al. (2012). It is a complex process of supporting vertical development that supports the learner's inner feeling of being able to lead (being), define what leadership is (knowing), and how to lead and influence in multiple situation and contexts (doing and contextual intelligence).

Clinical educators should seek ways and innovative strategies to support leadership skills in nursing students. In the literature, various pedagogic strategies are encouraged, such as application of the Active Learning Model (Middleton, 2013), service learning (Foli et al., 2014), clinical integration (Pepin et al., 2011), simulation experiences (Pollard & Wild, 2014), and the use of the social justice framework (Waite & Brooks, 2014).

According to Démeh & Rosengren, (2015) the education process could be described as a transition to become a nurse which begins with raising awareness, followed by a role model that helps bridge the students' gaps in knowledge about nursing activities.

One approach that has been proposed as a way of developing leadership skills among nursing students involves the use of dedicated education units (DEUs) (Galuska, 2015). Dedicated education units in the context of health education appear to be a feasible way of enhancing perceived leadership competence among nursing students. Satisfaction with this innovative strategy was high among all those involved, and the approach should be transferable to other settings (De Juan Pardo et al., 2022).

Combining theoretical and practical leadership in a continuous leadership development programme through the students learning experience and a visualised representation of leadership through role models, examples and theory may also be supportive (Ha & Pepin, 2018). Educators should support positive and inclusive leadership role modelling, while encouraging challenging of negative authoritarian examples and negative cultures (James, Watkins & Carrier, 2022).

Self-evaluation and reflective practices

The empowerment of students via metacognitive and self-evaluative practices also supports the critical theory pedagogy. Self-knowledge, self-evaluation and applicability of knowledge are constructs of the curricular theory of metacognition (Worrell, 1990).

The use of self-evaluation practices strengthens students' ability to think critically about their learning (Fonteyn & Cahill, 1998).

The ability to use self-evaluation and reflective practices is an important competency in nurse education. There is a demand for self-evaluating and autonomous students in the field of nursing, as nurses should be able to perceive situations from different points of view, and transform their past, present and future knowledge into effective interventions in the field of nursing care. Therefore, designing a curriculum in nursing should involve critically reflective curriculum and not the one containing subject-based learning and behaviouristic paradigms (Nilsson & Silen, 2010).

In the metacognitive approach, asking a question or a verbal stimulus in nursing education improves students' self-evaluation in the area of understanding and improves decision-making skills (Fiorella, Vogel-Walcutt & Fiore, 2012). In general, this approach has an impact on the provision of quality care to patients.

Nurse educators need to educate nursing students on nursing skills and knowledge; however, they also need to teach them and encourage the ability to use self-evaluation and reflection (Josephsen, 2014).

Writing a *reflective learning diary* is an educational activity that enhances critical self-reflection and self-awareness, and develops experiential learning skills. The experiential learning theory defines learning as the creation of knowledge through the transformation of experiences. Experiences are the foundation for learning, but learning cannot occur without reflection (Kolb, 1984). A reflective learning diary is an educational strategy to support meaningful learning (Mason & Boscolo, 2000; Karaca et al., 2016).

The main purpose of reflective diaries use is to reflect the dimensions of analysis, definition, and evaluation in regard to the learning experiences and academic achievements of individuals (Stiggins, 2006).

Using this strategy, students take notes about the educational process, and thus their ideas become clearer. Furthermore, students may describe events, experiences and emotions from the classes and describe what they learnt in the class, using their own words (Tynjälä, 1998). In the learning process students may also think about their learning goals and improve their critical thinking (Rivard & Straw, 2000).

Interprofessional learning, collaboration and cooperation

Interprofessional collaboration is defined as a team-focused approach to healthcare delivery that occurs when professionals work and communicate in intentional ways that focus on providing high-quality patient care (World Health Organization [WHO], 2010).

Purposeful communication and cooperation between experts improve the health care provided to patients, improves access to and coordination of care, and reduces the occurrence of errors (Lutfiyya et al., 2019). Therefore, it is important for healthcare providers, including nurses, to learn team cooperation and communication skills during their education (Berghout, 2021).

The IPEC (Interprofessional Education Collaborative) core competencies (2016) include a) the development of respectful attitudes towards all contributors of healthcare, b) an acknowledgment that all team members share common values and ethics, c) a focus on interprofessional teamwork and communication skills, and d) an awareness of the various roles and responsibilities of each team member (IPEC, 2016). The basis of education is the training of effective communication strategies and conflict resolution, promotion of team cooperation, and understanding the clarity of roles of each team member (Caronia & Sagliette, 2018).

The nurse's position as a leader is an integral part with a high level of responsibility for the quality of health care provided and patient safety through interprofessional collaboration. The general goal of interprofessional collaboration is to improve collaboration in the team with positive support of care for patients and to achieve positive outcomes (Au, 2023).

In the development of interprofessional collaboration, a lot of emphasis is placed on improving training in this competence, especially in collaboration with physicians (Stucky et al., 2022).

Nurse educators must be sufficiently trained to teach interprofessional collaboration (IPC) to future nurses (Berghout, 2021). Studies report that IPE curricula, courses, and simulation experiences encourage interdisciplinary collaboration and teamwork (Chew et al., 2019).

Collaborative learning is defined as a set of teaching methods intended for students to achieve the learning goal together (Slavin, 1987). Students themselves are responsible for the management and outcome of education (Bruffee, 1984). Collaborative learning brings cognitive benefits and improves social skills necessary for future professional work (Scager et al., 2016). Most previous studies have supported a positive effect of collaborative learning among nursing students (Zhang & Cui, 2018).

The collaborative learning approach also eased the transition from the classroom to the clinical learning environment and enhanced patient outcomes (Ruth-Sahd, 2011).

CONTINUING PROFESSIONAL DEVELOPMENT FOR EDUCATORS

The needs of continuing education and development refer to the requirements for the continuing professional development of nurse educators as required by regulatory authorities. They also refer to the nurses' internal motivation for the continuing professional development (Zlatanovic, 2019).

Results of an integrative review (Smith et al., 2023) show, that nurse educators have multiple roles which have specific and multiple personal and institutional needs and that these are related to the needs of nurse educators' development (Figure 3).



Figure 3. Model of review analysis findings and contextual relationships for the continuing development needs of nurse educators (Smith et al., 2023.)

CPD in nursing is defined as a lifelong process of active participation of nurses in educational activities that help develop and maintain their own continuous competence, improve their own professional experience, and support achievement of their personal career goals (Pool et al., 2015). It is an integral part of developing career resilience, one of the key attributes that can enable nurses to respond to and influence their constantly changing work environment with the potential outcome of increased job satisfaction and commitment to the profession (Waddell, 2015).

Continuing professional development needs are heterogeneous among nurse educators, nevertheless, they have some common features among teams as a whole and among different countries. Mentoring is a way of coordinating and creating a structure for nurse educators to deal with and navigate certain situations, especially in the dynamic and changing environment of health education (Smith et al., 2023).

In addition to small-group simulations, large-group simulations (Saaranen et al., 2020) have also been developed in order to make teaching, including continuous learning, also more cost-effective. Research-based simulation of a large-group simulation, even online, increases students' and professionals' understanding of interprofessional collaboration (Saaranen et al., 2020, Silen-Lipponen & Saaranen, 2021).

The development of an international framework of continuous professional development for nurse educators, independent of the formal requirements of individual countries, aimed at external verification of the individual needs of nurse educators, is required (Smith et al., 2023).

Adaptation of nurse educators to future challenges

The constant increase in health issues at the local and national levels, and the rapid increase of nursing knowledge of evidence-based practice into the curriculum requires the ability of nurse educators to be reflective of these changes. Nurse educators cannot foresee the future, but they can be on the cutting edge of nursing and pedagogical issues. Aforementioned evidence-based teaching is core to the future orientation. Furthermore, nurse educators need to be prepared to be flexible and agile in forming the education according to the pedagogical needs of the new student generations and changing requirements for education and content needs of the nursing field (Flaubert et al., 2021).

In the designed study programme ***Empowering the nurse educators in the changing world***, one of the study units is: Issues in future nurse education (5 ECTS, 7 weeks). The main purpose of the study unit is to encourage faculty engagement in the education of nurses in continuous re-design of curricula.

The study unit is for nurse educators to improve understanding of management, leadership and advocacy competencies. Foreseeable issues in nursing, such as changes in population demographics and changes in student population demographics, coupled with understanding of pedagogical issues, such as inter-professional and interdisciplinary collaboration need to be addressed. In addition, the role of patients in both nursing and nursing education in addition to the nurse educators own role development, continuous professional development (CPD) and reflective practices are also highly important.

To further the skills of management and leadership, the objective is to gain better skills in self-evaluation and learn reflective practice skills. In addition, we aim to enhance the learners' interdisciplinary and interpersonal collaboration and communication skills. One of the main targets is to increase nurse educators understanding and competence about future health issues and adaptation of those issues in their teaching and nurse education curricula. In addition, this study unit provides the learners with understanding of the effect of the education system and health care organization system to nursing education.

The content of the study unit is designed to prepare future nurse educators for the foreseeable issues of future nursing education and help them adapt more quickly to the unforeseeable changes. In the study unit, a method of team-based learning was utilised, to

deepen the learning experience of the students. Team-based learning was selected for the studies in Issues in Future Nurse Education (IFNE), because both language proficiency and cultural acceptance can be increased with Team-based learning (Randal et al., 2020). Furthermore, international collaboration has positive impact on both subject learning and collaboration skills for nurse educators (Salminen et al., 2016).

Team-based learning consists of six phases (Burgess et al., 2020) and consists of four crucial components (Michaelsen & Sweet, 2008). The phases of team-based learning are: Phase 1. Pre class preparations: In the IFNE study unit, the pre-class preparations consisted of an introductory lecture, and six country specific video lectures or video panels the students could follow at their own pace. In addition to these, there were six country specific webinars about the topics of the video lectures and panels to further clarify and deepen the understanding of the issues.

Phase 2 and 3. Individual and group readiness assurance test: In IFNE, instead of tests, due to the breadth and depth of the subject, a reflective learning diary was utilised (during the 1st week before the start of the assignment, during week 3 and during week 6). In addition, the groups would present their weekly progress of their project plan to the instructors and the other teams.

Phase 4. Immediate feedback and clarification: Students of IFNE received feedback on their learning diary in written form. In addition, each session started with a larger group session with clarification of last weeks issue and introduction to the following weeks issue. Each session also included guidance for each individual team, as they were divided into break-out rooms.

Phase 5. Problem solving activities: During IFNE the students created a mock research plan about a selected future issue. The task was divided into 4 sessions, each week a new element of the research process was introduced to the teams.

Phase 6. Closing: Each session ended with a joint summary of the day's task. In addition a final seminar was arranged, where the students were able to present their team's work in the form of an oral and visual presentation. Students were received and gave immediate peer-feedback. All students had individually reflected on their own learning with the learning diaries and they had received written feedback on their diaries (Figure 2).

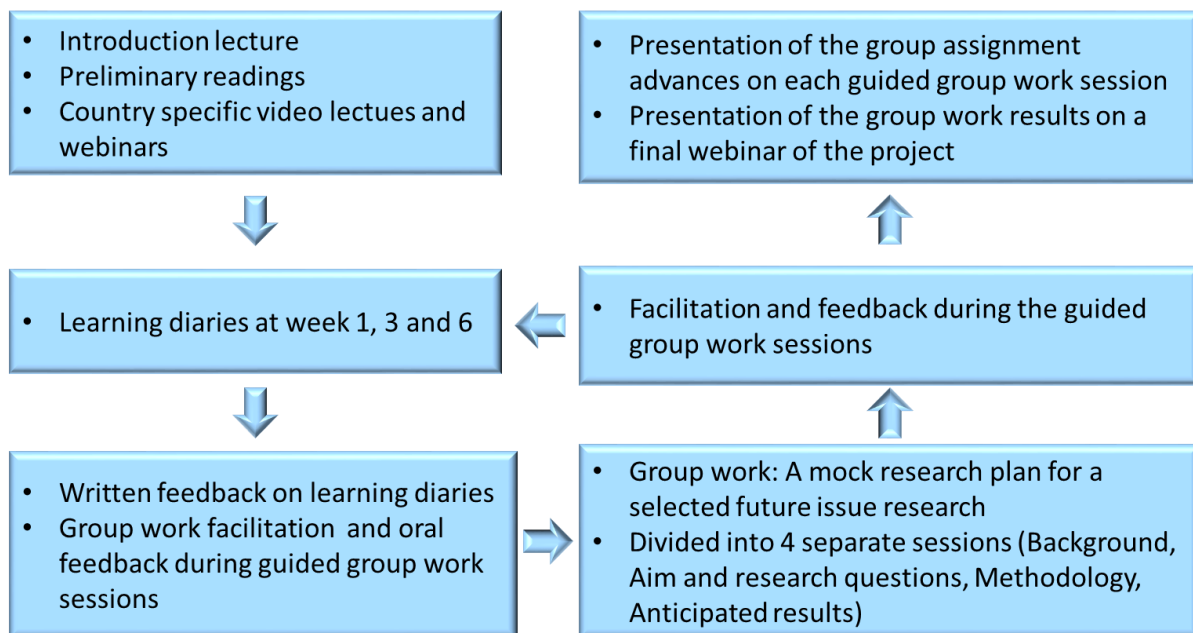


Figure 2. The phases of the team-based learning on IFNE (Elonen et al., 2022)

The four essential elements of the team-based learning are: groups, accountability, feedback and assignment design. In our study unit, the group formation was moderated and facilitated by an instructor. Diversity of the group is essential to gain best effect out of team-based learning (Michaelsen & Sweet, 2008). In our study unit, students were allowed to select a group that had the topic they most felt engaged with. This leads to experienced and novice educators sharing their experiences and competence with each other. Students were also required to assure, that group consisted of minimum three different nationalities, to gain the international perspective. The groups would remain the same throughout the study unit.

The students were held accountable for the quality of their work, they were assessed during each of the webinars, and with the learning diaries. They were all required to participate with both individual assignments (learning diaries) and group assignments (the mock research plan). The students were responsible of their own and their group learning, which they could reflect upon in their learning diaries.

Feedback supports both learning and retention; hence it needs to be accurate, frequent, and timely (Michaelsen & Sweet, 2008). The students received immediate feedback during the webinars, and they received written feedback about their learning diaries within a couple weeks of the submitting.

The group assignment has a dual role: Promotion of learning and promotion of team formation. In our study unit (IFNE) the students were allowed to form the topic according to their own choices. The groups were formed around the topics that the groups formed together. This promotes decision making and open discourse. Finally, the students were able to present their final assignment to the whole group, receiving feedback from their peers and facilitating discussion with the other educators and educator candidates, being able to share their expertise and promote learning in other groups as well as their own.

Based on the student feedback and research conducted during the study unit, similarly, as with the Randal et al. (2020) study, both language proficiency and cultural acceptance were increased with team-based learning. Participants reflected that their understanding and knowledge of the subject had broadened during the study unit, which is similar as Salminen et al. (2016) study. International collaboration and especially working in groups during their studies was highly valued by the students. There were also some challenges, but nevertheless, students were motivated to study and continue networking and collaboration in the future.

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