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Riitta Muhonen & Minna Turunen (Eds.)

Innovative Nurse (IN)
-Nursing Education for the Needs of Sparsely Populated Areas

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Contents

Foreword

This publication was created as part of the Innovative Nurse project, funded by the Ministry of Education and Culture on 19th December 2018 – 31st December 2021. The Innovative Nurse nursing education was carried out in cooperation with Karelia University of Applied Sciences (main responsibility), Kajaani University of Applied Sciences, and Lapland University of Applied Sciences. The aim of the project was to ensure the availability and renewal of high-skilled labour, especially in the fields suffering from the lack of skilled labour.

The ageing of the population is a current health policy issue, which is particularly significant in the sparsely populated areas and border regions of Eastern and Northern Finland. Retirement of nurses has resulted in the lack of labour, especially in sparsely populated areas. Consequently, equal access to health care services in all parts of Finland has become endangered. There is a lack of nurses in North Karelia (particularly in Pielinen Karelia), in Kainuu (Suomussalmi), and in Lapland (e.g. in Sodankylä). The aim of the Innovative Nurse project was to meet the need for nurses in these areas.

The articles in this publication provide a versatile view of the implementation of Innovative Nurse nursing education and of future competence needs of nurses in sparsely populated areas. The publication has been divided in five parts: implementation of nursing education in sparsely populated areas, digitalisation in nursing work and in the everyday life of clients, new teaching methods, development of nursing work in the Kainuu region, and working life cooperation as a method of obtaining new nurses to sparsely populated areas. This publication is targeted at the development of nursing education and strengthening of working life cooperation in sparsely populated areas. Furthermore, nurses can use the information provided in this publication to recognise their own competences and to strengthen their capabilities e.g. in the introduction of new technologies and in the clinical competence of nursing.

We would like to give our warmest thanks to everyone participating in this project; project members from all attending universities of applied sciences, teachers, students, working life partners, and steering group members. We would also like to thank all the authors of this publication and all of you who have contributed to the completion of this publication.

In Joensuu, 30th November 2021

Riitta Muhonen and Minna Turunen

1   Implementation of Nursing Education in Sparsely Populated Areas

Student Selection for the Innovative Nurse (IN) Education and Implementation of Studies

Riitta Muhonen, Minna Turunen, Jaana Kemppainen, Sirpa Kaukiainen

This article describes the first stages of the educational Innovative Nurse (IN) project, the start of the cooperation between universities of applied sciences within this project, student selection, and the implementation of studies.

The nursing education called *Innovative Nurse* was education organised with separate funding from the Ministry of Education and Culture. The education was implemented by Karelia University of Applied Sciences (main responsibility), Kajaani University of Applied Sciences, and Lapland University of Applied Sciences on 19th December 2018 - 31st December 2021.

The ageing of the population is a current health policy issue, which is particularly significant in the sparsely populated areas and border regions of Eastern and Northern Finland. Consequently, equal access to health care services in all parts of Finland has become endangered. There is a lack of nurses in North Karelia (particularly in Pielinen Karelia), in Kainuu (Suomussalmi), and in Lapland (e.g. in Sodankylä). The aim of the Innovative Nurse project was to meet the need for nurses in these areas. Employers request that graduating nurses should have extensive competence in the different fields of nursing and they support and encourage the becoming nurses to obtain this competence. One of the most important parts of this competence is that the becoming nurses can make independent decisions in a wide range of nursing situations.

"The ageing of the population is a current health policy issue, which is particularly significant in the sparsely populated areas and border regions of Eastern and Northern Finland."

The Innovative Nurse education was implemented as multimodal teaching including both virtual studies online and contact teaching on campus in each university of applied sciences. The method *studification of work* was also an important form of implementation of studies in this education. Special current and future challenges in the field of health care and social services were particularly addressed in the education, including knowledge and application of social and health care legislation (social and health care reform), home care services and mobile services, comprehensive care and assessment of the need for care, documentation and e-services, deployment of new technologies and the ability to use them, multiprofessional cooperation with social and health care partners as well as partners from other fields, and entrepreneurship.

Student Selection at Karelia University of Applied Sciences

Separate application for the Innovative Nurse education took place via Studyinfo.fi service on 25th February – 15th March 2019. Student selection was based on an entrance examination consisting of a student selection course and online group interviews, and the total score from these two sections was used as the criteria for student selection. The student selection course was a 2-credit course that is one of the compulsory courses in nursing education at Karelia UAS. The course was conducted online in Moodle learning environment on 19th March – 26th March 2019. The applicants who succeeded the best in the course were invited to attend group interviews. The group interviews were conducted via Moodle Collaboration tool in the beginning of April.

A total of 75 students applied for the education and 54 of these applicants conducted the student selection course. Some of the applicants signed up in Moodle, but they did not return any assignments. It is likely that these dropouts were not motivated or really interested in the education, or they felt that it was too difficult to work online. The student selection course was more suitable for selecting students for multimodal education than a traditional entrance exam because both sections of the entrance exam required to applicants to have IT skills and digital competence. In group interviews, applicants' social skills and suitability for the field were assessed based on national selection criteria. Three of four applicants attended group interviews at a time and two teachers gave them instructions and assessed the discussion. The student selection course was completed via Open University of Applied Sciences, so each applicant who successfully completed the course gained two Open UAS credits of the course. A total of 30 students were selected for the education from the following locations: Nurmes (12), Lieksa (5), Juuka (4), Ilomantsi (2), Kontiolahti (2), Joensuu (1), Kitee (1), Heinävesi (1), Tohmajärvi (1), and Outokumpu (1).

Positive experiences were obtained both from the student selection course and the online group interviews as a method of entrance examination. These experiences were utilised in the selection process of the new Innovative Nurse 2 student group in spring 2021. According to the gained experiences, students' commitment to working online and to developing their own digital competence has been active.

Student Selection at Kajaani University of Applied Sciences

Separate application for the Innovative Nurse education took place via Studyinfo.fi service on 25th February – 15th March 2019, at the same time with other universities of applied sciences attending the project. All applicants were invited to take part in the entrance exam. Student selection was based on an entrance exam consisting of mathematical assignments, a text comprehension assignment, and a writing assignment. In addition, the applicants were interviewed by teachers and representatives of working life in Suomussalmi.

The different parts of the entrance exam were scored, and the student selection was made based on the total score from each part. Main emphasis in the scores was laid on the individual interviews. Applicants with the highest score were selected for the education and each of the selected applicants accepted the study place.

A total of 79 students applied for the education and 64 of these applicants participated in the entrance examination. The interviews in the entrance exam were carried out according to an interview frame that is used to assess the applicant's suitability for the field of health care and social services. The different parts of the interview frame related to the applicant's study motivation, study skills, and requirements for completing a nursing degree. In addition, the applicants' interest in the field of health care and social services was clarified as well as their familiarity with the competence needed in nursing work. Furthermore, the applicants were inquired about their attitudes and commitment to education implemented according to the aims of the Innovative Nurse project, such as studying in a smaller location, and the interest in digitalisation and technology and their development in nursing. A total of 25 students were selected for the education from the following locations: Suomussalmi (16), Puolanka (4), Hyrynsalmi (1), Sotkamo (1), Paltamo (1), Taivalkoski (1), and Muhos (1).

Student Selection at Lapland University of Applied Sciences

Separate application for the Innovative Nurse education took place via Studyinfo.fi service on 25th February – 15th March 2019. The website of Lapland University of Applied Sciences and local newspapers were used in the marketing of the education. A total of 82 students applied for the education, mainly from the province of Lapland. The actual student selection had two stages: students' own application letter, and interviews. All applicants were invited to attend the interviews that were conducted on 1st – 3rd April 2019 at Lapland University of Applied Sciences. A total of 63 applicants participated in the interviews.

Before the interviews, the applicants were requested to write a letter of themselves, answering to the following questions: Why are you applying for nursing education? What is your area of interest in nursing? What are your strengths in relation to nurse's competences? The applicants were also asked to describe their understanding of their own learning abilities and skills in information technology, information acquisition, and teamwork. In addition, the applicants had to solve three medical calculations. The applicants submitted their letters before the interviews so that the two interviewing teachers could get to know the applicants before the interviews.

A total of 63 students participated in the interviews. The purpose of the interviews was to assess the applicants' ability to study in multimodal education and their suitability for working as a nurse. The applicants' success in their previous studies and work experience in the field of social services and health care was also taken into account in the final student selection scores. A total of 22 students were selected for the education from the following locations: Rovaniemi (5), Posio (2), Kemijärvi (3), Enontekiö (2), Muonio (1), Inari (5), and Sodankylä (4). Five of these students started their studies via Open UAS.

Implementation of Education

The education started as contact teaching in all universities of applied sciences at the same time on 6th May 2019. The student group at Karelia University of Applied Sciences took a Skype contact with the student group of Kajaani University of Applied Sciences in Suomussalmi. This gave the students a look at a similar education implemented both at Kajaani UAS and Lapland UAS. At Karelia UAS, the two days of contact teaching gave the

students a start to their studies and a strong encouragement to start thinking about time management during the studies. The RPL procedure (recognition of prior learning) was used to identify and recognise the students' prior studies and personal competence and, thus, guide each student to their individual paths of studies.

Picture 1. First school day in Suomussalmi town hall on 6th May 2019.
Photo: Jaana Kemppainen.

The theoretical studies in the education were mainly carried out as guided online studies. The teachers of study units planned their courses so that only the most essential parts required participation in contact teaching on campus. At Karelia UAS, students in the Innovative Nurse education were divided into two groups based on the location of contact teaching. One group met each other in Joensuu and the other in Nurmes on the campus of Riveria vocational school. This practice proved to be a good solution. The majority of students in the student group in Nurmes were from Pielinen Karelia. This made it possible for the students to reconcile studies, work and family life.

In Kainuu, Suomussalmi, the theoretical studies (2-3 months) were conducted as contact, distance, and online studies twice a week. In addition, the theoretical studies included simulation exercises, which were carried out in the simulation facilities of Kajaani UAS as one day events organised 2-3 times a semester. The theoretical part was followed by a practical training period, where the students were able to apply the previously learned theoretical knowledge to practice. According to student feedback, the scheduling worked well and made it possible to work alongside with studies.

The theoretical studies at Lapland UAS were mainly carried out online. In addition, the theoretical studies included 1-3 workshop days on the campus of Lapland UAS. Studies online included both independent studies and group work. Learning assignments were discussed in joint online meetings (webinars). The theoretical studies had to be completed before the start of practical training. Due to long distances, Lapland UAS has developed a Moodle examination platform for medical calculations, where exams can be taken under supervision. The students themselves are responsible for asking for a representative of an official organisation to supervise the exam, and the students then log into the exam at an agreed time using a code given by the supervisor.

"Working life cooperation had a major role in the implementation of the Innovative Nurse project. The majority of students worked alongside with their studies."

Working life cooperation had a major role in the implementation of the Innovative Nurse project. The majority of students worked alongside with their studies. Many Karelia UAS students work in the different units of Siun Sote (Joint Municipal Authority for *North Karelia* Social and Health Services) and some in private nursing homes. Project members from Karelia UAS as well as educational coordinators from Siun Sote visited Nurmes in autumn 2019 to discuss the education and the implementation of students' practical training periods as well as the possibilities for studification of work. Supervisors and student coordinators from Juuka, Nurmes, Lieksa and Valtimo also attended the meeting. The aim of the studification of work is to combine studies and work, i.e. to bring the world of work into the education and also to transfer school-based learning to workplaces. The studies were linked to the development of the students' own work and work community throughout the entire education. Kajaani UAS also utilised the practices of studification of work during the education.

Lapland UAS held a discussion with the municipalities about the timing, content and development needs of the education at the beginning of the Innovative Nurse education and during the course of the education. The teacher in charge of practical training at Lapland UAS mapped the localities suitable for practical training periods in cooperation with public and private social and health care sector actors in the region. Consequently, the students' practical training opportunities could be preliminarily planned already at the beginning of the education. The discussions with the municipalities also included charting the educational wishes and needs of sparsely populated areas. Continuous and natural communication between municipalities, Lapland UAS and the students was also achieved through mentors. The mentors provided Lapland UAS with important information about the progress of studies and possible challenges in studying.

All three universities of applied sciences implemented the education with their own curriculum. However, students were able to supplement their own competence by taking studies offered by another university of applied sciences. Strong support and guidance of students was emphasised in the education. The studies were planned to be taken throughout the year, including the summer period. The individual study plan (IPS) conducted for each student supported the completion of studies within the set duration.

Digital and Technological Perspective in the Nursing Education Curriculum of Kajaani University of Applied Sciences

Jaana Kemppainen

Students in the Degree Programme in Nursing graduate with the title Bachelor of Social Services and Health Care. The extent of the nursing degree is 210 credits. The studies consist of basic and professional studies, practical training, thesis and maturity examination, and optional studies. The degree is regulated by the Universities of Applied Sciences Act (932/2014) and Decree (1129/2014). To obtain the right to practice a profession after the education, the education meets the requirements by the degree regulations of each university of applied sciences as well as the requirements of the Act (559/94) and Decree (564/94) on Health Care Professionals (Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications and Directive 2013/55/EU of the European parliament and of the Council of 20 November 2013 amending Directive 2005/36/EC on the recognition of professional qualifications).

Kajaani University of Applied Sciences developed and reformed its nursing education curriculum and built a learning environment with technological solutions within the Digios project (*Developing digital know-how in social and health care education and services in Kainuu 2017-2018*). One of the objectives of the project was to promote the development of nursing students' digital competence. (Eklund & Ylitalo 2019.) The curriculum is piloted within the Innovative Nurse project and the Suomussalmi nursing group.

Themes and Structure of the Curriculum

Nursing education is based on nationally defined and commonly accepted professional skills requirements, i.e. competence requirements. The foundation in the nursing education consists of common competences for all UAS degrees and of competences defined particularly for the nursing education. As the nursing curriculum was reformed, one focus was on competence requirements that promote digitalisation and technology. In practice, graduating nursing students should be able to utilise ICT in their nursing duties, use electronic services as part of the overall care of the client or the patient, and work in renewing environments. (Auvinen, Heikkilä, Ilola, Kallioinen, Luopajärvi, Raij & Roslöf 2010; Competence requirements and contents for the degree for nurses responsible for general care, 180 credits, n.d.)

The nursing education curriculum is divided into annual themes, the purpose of which is to describe the student's development and growth towards the profession of a nurse. The purpose of the first year's theme is that the student gets familiar with nursing work and understands the importance of multidisciplinary knowledge for professional competence. The focus of the second study year is in the development of clinical competence; the stu-

dent learns to plan, implement and evaluate the overall care of a client or a patient, guided by the values and principles of nursing. During the third year of study, the student learns to apply evidence-based information to the care of individuals, families, groups and communities. The theme of the last study year is to develop nursing; students understand their responsibility in development of the field and in multi-professional communities. (Nursing education, Bachelor of Health Care (Nursing), 210 credits, 2019.)

"In practice, graduating nursing students should be able to utilise ICT in their nursing duties, use electronic services as part of the overall care of the client or the patient, and work in renewing environments."

In the nursing education curriculum in Suomussalmi, there are six competences that follow the annual themes mentioned above. These competences are titled: Start your nursing journey, Take care of the client, Promote the client's health, Strengthen your nursing skills, Apply your customer-oriented competence, and Deepen your development competence in nursing. (Nursing education, Bachelor of Health Care (Nursing), 210 credits, 2019.)

The Digios project aimed at responding to the current challenges of digitalisation and technology in the field of nursing. Development of digital competence was selected as the cross-sectional theme in the nursing education curriculum. (Eklund & Ylitalo 2019.)

Development of Digital Competence During Studies

A student is required to have basic IT skills to be able to learn digital methods. These abilities are studied at the beginning of the nursing education. After that, students get familiar with the social and health care service system so that they can understand a customer's service package as a whole and learn how digital services can be used in it. In addition, e-services in health care, such as the use of Kanta services, Terveyskylä and Kainuun Oma-sote are studied in the early stages of the studies. Halfway through the studies, the focus is on health promotion and supporting the client's self-care using both traditional and digital methods. (Eklund & Ylitalo 2019.) In the final stage of the education, remote simulations and elements of gamification have been used as teaching methods, including escape room tasks for medical calculations and acute nursing.

The learning environment of the Digios project makes it possible for all nursing students to become acquainted with the digital world of social services and health care. The technology in the learning environment as well as client examples are used to assess the need for care and to plan, implement and evaluate care. The focus in the learning assignments is on remote client work based on the client's care and guidance plan. The use of the learning environment is supported by a structured recording platform for care developed during the project. (Eklund & Ylitalo 2019.) The platform uses a small-scale AI application that allows you to test speech recognition in the recording of nursing work (Huusko 2021).

The Digios learning environment includes smart technology that monitors the safety of homes and the well-being and activity of the resident. For example, electrical devices left on

for too long or the opening of doors and windows cause an alarm through remote monitoring. The client's state of health, well-being, activity, and quality of sleep can be monitored wirelessly with various monitoring and measuring applications the use of which can also be tested outside the learning environment. (Eklund & Ylitalo 2019.) All information collected about clients and their surroundings can be collected and stored in the Gillie.io system (Gillie.io n.d.), which anticipates changes in the patient's health and well-being by using artificial intelligence to follow patients living at home. Robotics is studied with the help of Double presence robots and Paro and Zora robots.

"Each larger study module in the curriculum includes one digital and technological method to be acquired."

The nursing education curriculum in Suomussalmi, and particularly the development of digitalisation and technological competence in the curriculum, is assessed with a questionnaire directed for students at the initial, mid-term and final stages of the Innovative Nurse project. In addition, one focus in the development discussions during the studies is in the new curriculum and how it has contributed to the development of the student's digital competence. The aim is that the nursing professionals graduated from Kajaani UAS are well prepared for using modern digital tools in social and health care, and that they are open-minded towards new digital solutions (Eklund & Ylitalo 2019).

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Online Implementation of Nursing Education at Lapland University of Applied Sciences

Sirpa Kaukiainen & Heikki Erola

Online learning is a new, rapidly developing teaching method in nursing education. Students are today well aware of modern teaching methods and request studies that can be taken regardless of time and place. In online studies, students must take more responsibility for their own learning and be committed to studying in order to achieve the same results as in traditional classroom education (Männistö, Mikkonen, Vuopala, Kuivila, Virtanen, Kyngäs, Kääriäinen 2019). Communal learning online requires students to take more responsibility for their studies compared to contact teaching. Online studies emphasise self-direction and students need to have the ability to plan and schedule their studies and reconcile the studies with other parts of their lives.

The Finnish National Agency for Education (2019) has published a report *Osaaminen 2035* that defines the following aspects as the most important areas of competence in future working life: competence in using digital solutions and platforms in a versatile way, management of digital operations, and the ability to take advantage of digital solutions. The most important digital skills for citizens include the ability to apply digital tools, and digital communication and cooperation skills. Competence in interaction and communication are particularly important in service professions, where customers are also encountered online. According to Digivisio 2030 for higher education institutions, Finland is a model country for flexible learning by supporting studies and students' well-being in an accessible way, regardless of time and place, and utilises AI solutions as teaching tools, but with focus on the learner's benefit (Digivision 2030).

Implementation of Online Studies

Learning online can be divided into three types: web-supported contact teaching, multimodal teaching, and self-studies online (Männistö et al. 2019). At Lapland UAS, one of the key competences in nursing education is safe remote care and especially the digital solutions in nursing. Digitalisation is seen as one of the solutions to the challenges in providing local, national and international services and to the challenges regarding equal access to them, especially in sparsely populated areas (Lapland University of Applied Sciences 2020). Digital services are considered a good solution for implementing high-quality remote care. Teaching in the Innovative Nurse education has utilised digital solutions and developed them further, and the students have had the opportunity to practice online interaction and skills needed in remote care.

The students started planning their studies after receiving information about the study place. The students were advised to visit the website of Lapland UAS and get to know Lapland UAS as a study environment. According to the students' comments, they had received a lot of useful information there on how to plan their studies. It was, thereby, easier for them to get to know to the curriculum and the contents of study units immediately during the first days of study.

Contact teaching and student counselling for this group have mainly been arranged in form of online webinars and lessons using the Adobe Connect (AC) software. Participation in webinars has not been dependent on place, but it has been dependent on time as the students have needed to book a time in their own calendars for participating in them. The webinars have always required prior preparation and, as they have been arranged at least once a week, they have motivated the students to plan their timetables in order to keep up with the course. The students received information about the timetables and schedules for study units, online sessions and webinars, and contact teaching days in advance. This way, the students have been able to plan and schedule their studies and reconcile them with their work and leisure. In addition, the students have had the opportunity to have personal discussions, when needing support for the challenges they have faced during their studies. These discussions have also been arranged mainly online.

"Teaching in the Innovative Nurse education has utilised digital solutions and developed them further, and the students have had the opportunity to practice online interaction and skills needed in remote care. "

Webinars for different study units were held using the AC software and they were mainly held in daytime, although some sessions were held in the evenings. Contact teaching days in Rovaniemi were held 1-3 times a month in form of clinical workshops. Simulation environments and simulation pedagogy have often been used during these contact teaching days on campus.

"Contact teaching days in Rovaniemi were held 1-3 times a month in form of clinical workshops. Simulation environments and simulation pedagogy have often been used during these contact teaching days on campus."

Contact teaching day in Saariselkä, October 2021. Photo: Sirpa Kaukiainen.

Contact teaching online, independently taken study units, and combination of contact teaching and online teaching were developed as the studies were implemented. The learning platform used was the Moodle learning environment of Lapland UAS. The contents of the teaching included, for example, assignments related to assessment of the need for care. A concrete example was the course Nursing in Emergency and Outpatient Services (5 crs) in which the students filmed the assessment of the need for care and the preparation of a care plan at telephone or video reception. The aim was to produce a video with special attention to the quality of online interaction and to the correct assessment of the need for care. According to the students' experiences, the assignment helped them to get an authentic experience of working online.

In study units related to students' practical training, student counselling has been implemented online. During the practical training periods, the students have used an electronic practical training workbook, that the student, instructor, and teacher have used to comment on the progress of the training. The electronic workbook has also been used as a basis for student-instructor discussions that have been implemented via Teams. Online environments have also been used in the discussions related to students' clinical practical training periods in the provinces and the placement of students' individual practical training periods in certain municipalities. Online implementation provides, thus, more equal opportunities for studying also in sparsely populated areas.

Future of Online Studies

Digital teaching changes the practices of traditional teaching and makes teaching methods more flexible. It also makes it possible to make learning environments more innovative and teaching methods more versatile. Interactive online studies enable students to have a high-quality study unit that provides sufficient counselling and guidance. Teaching online requires the teacher to adopt new working methods, new types of knowledge, and new pedagogical solutions.

The corona pandemic has posed challenges as e.g. some practical training periods have been cancelled or moved to another period of time. It has caused a risk for studies becoming delayed. However, different types of digital solutions and online teaching and counselling have made it possible for students to study with flexible ways. Despite the pandemic, students have received teaching and counselling according to the original schedule. It has, however, required close cooperation with municipalities and hospital districts. In this work, digital solutions and use of digital platforms have been extremely significant. According to our experiences, the implementation of Innovative Nurse education in sparsely populated areas has taken us towards the joint digital vision 2030 for higher education institutions.

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2   Digitalisation in Nursing Work and in Clients' Daily Life

Development of Digital Competence at Karelia University of Applied Sciences Nursing Degree

Helena Ikonen, Riitta Muhonen, Minna Turunen

This article is based on the development and developing of the digital competence of nursing students in Karelia University of Applied Sciences. In healthcare, e-services complement traditional services and because of their ease of use, citizens' utilisation of electronic services is increasing. The introduction and development of new e-services is already normal for healthcare professionals. Digitalisation is one of the themes of Karelia's 2030 strategy, and it has been taken into account in the curriculum and in the implementation of teaching in the nursing degree.

Finland is one of the EU's leading countries in the use of e-services in the field of social and health services. Digitalisation does not take away from the more traditional role of a nurse working by the customer's bed, but it is one part of responding to the customer's needs from the viewpoint of monitoring health and well-being. Thus, digitalisation does not replace people in all areas of nursing. In the future, the share of telehealth and remote care is estimated to increase significantly. It means the continuous introduction of technological solutions and practices in nursing. Self-care and self-monitoring of healthcare customers will become more common. Digitalisation requires continuous development and innovation so that new kinds of services and ways of doing work are produced in the field of health and social services.

> **"Digitalisation is one of the themes of Karelia's 2030 strategy, and it has been taken into account in the curriculum and in the implementation of teaching in the nursing degree."**

The digitalisation guidelines related to securing social and health services are set out in the eHealth and eSocial Strategy from 2020, published by the Ministry of Social Affairs and Health. The objective of the strategy is to enable citizens' use of electronic services and to produce information for their own and professional use. In this case, reliable wellbeing data and services that enable their use are available electronically. (Ministry of Social Affairs and Health 2016a.)

For social and healthcare professionals, this means access to information systems that support work and operational processes, as well as accessible electronic applications. To ensure the functioning of the service system, it is important that the limited resources are put to proper use. E-solutions ensure equality of services in sparsely populated areas.

Customer orientation can be seen as a value or principle in social and health services. Customer orientation emphasises customer respect, individuality and the need to be heard. (Kekoni, Mönkkönen, Hujala, Laulainen & Hirvonen 2019, 17.) In customer-oriented operations, operations (such as customer guidance and service guidance) start from the customer's, not only the service provider's needs (Figure 1). The customer is seen as an active actor participating in the services, not as a passive object of services. The customer is also involved in the planning of their own care or service. The expertise of his/her own life makes the customer in the service process an equal operator and partner. (Virtanen et al. 2011.)
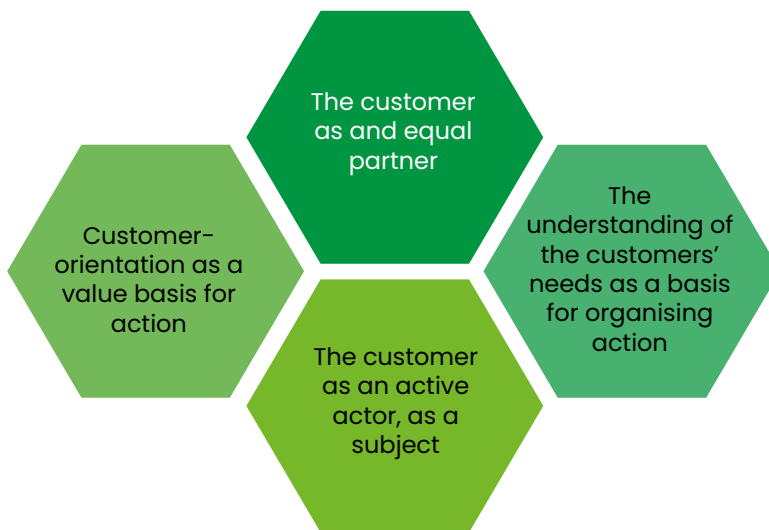
Figure 1. Building blocks for customer orientation. (Virtanen et al. 2011.)

Digital Competence as a Basic Skill for Nurses

The Ministry of Finance defines digitalisation as both the modernisation of operating methods, the digitalisation of internal processes, and the electrification of services. Digital social and health services refer to social and healthcare tools and services that utilise information and communication technologies. When discussing digital social and health services, different concepts, which have different meanings, are used. In close terms, we talk about e-services in healthcare or in the social sector, or about digital services. A digital service where the customer interacts digitally with the authority must always be interactive and include e-services. The service can start digitally, and include other transactions during the service chain. (Ministry of Social Affairs and Health 2016b.) The digitalisation in the sector of social and health care is associated with customer orientation, the utilisation of digital technology applications (app, VR, IoT, robots, artificial intelligence, etc.), ethics, patient safety, information management, remote services and online customer guidance, as well as customer's and professionals' competence in information and communication technology (Figure 2).

The development and developing of digital competence of a Karelia's nursing student during the studies

Utilising digitalisation in learning and teaching

the "philosophy" of online pedagogy 24/7

the digital tools for learning available at Karelia

user (online) support

tools for online pedagogy

online simulation, digital living lab, VR,

audio-visual methods

good practices

online learning

E-services and customer guidance → Secure use of digital health services → Use and development of evidence-based digital services → Applied use of digital services

A graduating nurse, who masters the digital competences of future working life

Customer-orientation

Different digital services in customer work

Societal competences

Digital technology: app, VR IoT, robots, AI, etc.

Innovations, research and development

Patient security

Ethics

Service counselling, coaching, multiprofessional co-operation

Different client groups and families

BigData, knowledge management and knowledge-based management

Social and health care organisation and its management

Digitalisation in the field of social and health care and in service systems

Figure 2. Development and developing of the digital competence of a Karelia's nursing student during the studies.

The resident's digital services make it possible use services online and with a smartphone, including guidance and counselling by phone. Digital services are customer-oriented and easy-to-use services which are available 24/7, even from the customer's own home. (Sote-digi 2019.) When discussing mobile technologies in public and private healthcare, the concept of mHealth is used. It means supporting healthcare or public health using a variety of mobile devices, such as smartphones, monitoring devices, computers (PDAs) and other wireless devices. (WHO 2011.)

Today, service guidance is an essential part of the service that customers need, because the users of social and health care services include groups of customers whose benefits are scattered around in dozens of different laws. Service management can co-ordinate services at organisational level. When service guidance is available in the form of low-threshold advice and guidance on a multi-channel basis, support can be provided to individuals at an early stage. (Hänninen 2007.) Multi-professional and multidisciplinary skills and competencies related to them have become key content of the curriculum in the social and health care field at Karelia University of Applied Sciences.

eHealth is defined by the EU as "health tools and services using information and communication technologies (ICT) with the aim of improving disease prevention, diagnosis, treatment, monitoring and health management." They will improve the access to and the quality of care and services, as well as the effectiveness of health care. (European Union, 2020.)

Electronic health services include the exchange of information between patients and healthcare providers, hospitals, health professionals and health information networks. These include electronic patient information systems, telemedicine services, portable pa-

tient monitoring devices, operating room reservation systems, and curiosity-driven or blue skies research on robotic surgery and virtual modelling of human physiology. These are a part of a nurse's digital competence, and a part of Karelia's digital competence in different operating environments and service systems in the nursing degree.

Throughout the curriculum, nursing studies include learning the secure use of various digital services in the care of different customer groups. Different e-services can be divided into national e-services and local and regional social and health services. National e-services include Omakanta, Omaolo and Terveyskylä. Local and regional services include remote consultations, online booking, e-forms, chat services, self-registration machines, videophones, etc. (Figure 2).

Online interaction is interaction between two or more people via an information network. In online communication, a variety of digital tools are used. It is important to understand the suitability of online communications to different contexts. Nursing students are able familiarise with and learn about the customer's online guidance throughout their studies. This is done in in theory studies, using electronic environments and e-services. In clinical practice, students, together with their instructors implement these services for clients. (Figure 2).

Digitalisation has brought new opportunities for data management and information management. Knowledge management is about creating conditions for informed decision-making. Information management is about making decisions on the basis of analysed, up-to-date and available information. Learning about knowledge management and information management is part of multiprofessional studies in Karelia's curriculum. During studies, students encounter these in learning about the documentation of a client's data, the use of information and utilising the information for developing the quality of service, continuity of care and service, statistics and research. (Karelia 2021, SoteDigi 2019.)

Using Digitalisation in Learning and Teaching

As part of their studies, nursing students from the Innovative Nurse group participated in the piloting of the DigiNurse project. In the project, the nursing students of Karelia University of Applied Sciences coached clients in the use of digital tools to maintain health and well-being. The students learned to direct and coach customers in a resource-oriented manner, and the customers at the same time received support for the use of digital aids. Similarly, students gained experience in deploying and using digital tools, and guiding customers online using them. (DigiNurse project 2020.)

The project carried out pilots in cooperation between the client and the student. During the coaching, the client was instructed to use a mobile application for monitoring sleep and well-being. The client either had or they started using an application for sleep monitoring. In connection with the pilot, the students practiced the DigiNurse coaching, which included both the Grow model and the 5A-model coaching.

Coaching means that the healthcare staff have the task of coaching, supporting and empowering the customer to take responsibility of their own health. Coaching is based on mutual trust. Instead of addressing weaknesses, guidance focuses on strengths and their development. The coach is present, actively listening and asking questions that help the client become more aware of their own thinking, assumptions and beliefs, as well as encouraging new activities. The goal is that the client can find solutions and policy options for achieving their goals. (Alexander, Fine, Whitmore 2020.) Coaching a client is the work of a future nurse.

Nursing students from the Innovative Nurse group participated in a pilot project that was carried out in the practical placement for medical-surgical nursing in spring 2020.

The theme of the project was the promotion and maintaining the health and well-being of a patient. The students' customers had a need for guidance related to long-term illness and sleep or other well-being. In some of the cases, the aim was to monitor and evaluate the effects of sleep on the customer's overall well-being and health and health promotion. In these cases, a sleep monitoring app or ring was used as a tool for coaching. The smart ring that was used was the Moodmetric ring, which had been in use in the the Sleep Well project. The students coached clients, other students, friends and family members.

"In the project, the nursing students of Karelia University of Applied Sciences coached clients in the use of digital tools to maintain health and well-being."

Students reported that in coaching their clients they had gained technical skills. The customers' attitudes towards technology came up in the course of coaching. The backgrounds of the coached customers were varied, and sometimes the coaching situation became different from how the student had originally planned it. This provided an opportunity to practice managing changing situations. The students felt that the Grow model and the 5A model were suitable for coaching customers and good tools for a comprehensive customer encounter. Most of the students were successful in coaching the customers for taking responsibility for their own well-being. During the coaching, students felt that the customer was heard and made choices to promote their own health and well-being. Students felt that online coaching is well suited for monitoring personal health. The suitability varies according to the customer's life situation.

Students felt they were able to make better use of their digital skills to support and direct the self-management of clients with chronic diseases. The digital skills of hospitals and students were estimated to have improved. The teachers gained an effective model to guide the development of the digital competence of nursing students.

Future Nurse's Digital Skills in Working Life

Graduating nurses must have the digital skills of working life (Figure 2). Digitalisation related to social and health services has changed the roles of customers and professionals. Some of the services can be provided to citizens electronically. With eHealth services, customers have become more involved in the services and experts have become coaches. The customer must be up-to-date and aware of their own situation. The citizens' access to My Kanta and their own health records has changed the operating culture in healthcare. Instead of increasing the resources of social and healthcare experts, services can be improved by involving citizens and customers as active participants in the healthcare process. Citizens are responsible for their own well-being and functional ability, in which digitalisation acts as a support and tool.

Online interaction skills are emphasised in today's and future nursing. As experts, nurses should master giving guidance online, while considering the requirements of different customer groups and the ability of citizens to use online services. In order to provide a secure operating environment for e-services, nurses need to have digital skills and data protec-

tion and security expertise. Electronic services must be able to create an atmosphere of trust among all parties, despite the fact that they do not meet physically and possibly have nev er known each other.

The use and development of evidence-based digital services in teaching is related to their effectiveness and cost-effectiveness. Students practice the use of national data sources when designing, implementing and developing the customer service process. The nurse's task is to consider the requirements of different customer groups and the ability of citizens to use online services. For each customer group, the most suitable service should be found. The themes related to the assessment of the usability of services are taught in theory studies during different semesters and periods of study. (Karelia 2021.)

Digitalisation is quickly changing the operating environment of the social and health sector, creating completely new options for existing and new activities. New practices such as teleservices change the traditional practices of nurses. "The nurse of the future will also be a data interpreter".

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Nurse's Remote Reception, 5 crs – Common Virtual Study Unit for Universities of Applied Sciences

Heikki Erola, Helena Ikonen, Sirpa Kaukiainen, Jaana Kemppainen

Within the Innovative Nurse project, Karelia UAS, Kajaani UAS and Lapland UAS jointly planned and implemented a 5-credit virtual study unit, Nurse's Remote Reception, which was piloted in all three universities of applied sciences in spring 2021. The study unit consisted of the following themes: customer orientation at nurse's remote reception, ethics in remote reception, information security and privacy protection, tools for remote nursing and various channels of nursing in remote environments, assessment of the effectiveness of customer-oriented health care services, and self-assessment of the skills needed in remote nursing. This article discusses the main contents of these themes in the course Nurse's Remote Reception.

Customer Orientation at Nurse's Remote Reception

Customer-oriented activities in health care refer to clients, service users in different types of encounter situations, and to organisational or single employees' ways of working. In remote reception, clients should be seen as equal actors in the planning and decision-making of their own care. Clients operate online and produce information for their own and professionals' use. Clients should be aware of and have access to those electronic services they can influence themselves. Openness and good communication between the different parties as well as flexibility of services according to customers' needs are important factors to be considered in a service event. (Virtanen et al. 2015, 20-24.)

Clients can be seen as active, reciprocal parties in the development of social and health care services (Ristolainen et al. 2020, 243). Involving the client in the development of service processes, collection of customer information, and utilisation of the results on the basis of decision-making is of help when developing customer-oriented health care services (Virtanen et al. 2021, 22). How could the client and the service provider together respond to the increasing, diversifying expectations and needs of social and health care services in a cost-effective manner? One possibility is to make use of our everyday technologies for the development of social and health care services. Alongside with the previous services, technical innovations should be developed towards being more customer-oriented, taking into account the needs and competence of different customer groups, as well as the development of the digital competence of nursing staff.

Ethics in Remote Reception

Digitalisation has proven to be a good tool in health care, but it also involves ethical challenges when looking at it from the point of view of citizens with different backgrounds and

situations of life. Remote receptions represent changed operating environments for both clients and professionals.

Fast technological development and changes in operating environments raise new ethical issues and ethical competence needs. Therefore, the ethical sensitivity and motivation of professionals to identify ethical issues as well as responsibility in ethical activities are emphasised. (Koski & Sihvo 2020.)

Equal service means taking into account the special characteristics of different customer groups so that the services are accessible to all. When developing digital services, special attention should be paid to the provision of services to citizens on an equal basis, regardless of time, place, functional capability, ability to communicate, age, or gender. (Ministry of Social Affairs and Health 2016).

Tools for Remote Nursing, Various Channels of Nursing in Remote Environments

Clients need to have access to the services they need, and they should have the chance to affect the contents and implementation of these services. The implementation and development of services is based on understanding and respecting clients' operations and needs. (Ministry of Finance 2019.) In health care, remote services refer to the fact that the examination, diagnostics, observation, follow-up, and care and treatment-related decisions or recommendations of a patient are based, for example, on data and documents transmitted via video online or on a mobile phone. Thus, the patient receives health care services remotely. (Valvira 2021.)

Digital social and health care services refer to social and health care tools and services that utilise information and communication technologies (Figure 1). Digitalisation in the field of social services and health care involves clients and professionals' competence in information and communication technology. This competence is needed both from clients and professionals when health care organisations provide local and regional health care services through various channels. Citizens also have access to national e-services (Omakanta, Omaolo, Terveyskylä). E-services are available to clients for monitoring their own health. Telephone reception, online counselling and remote receptions, multiprofessional meetings, and instant messaging services are reality today.

In a nurse's remote reception, the skills in online guidance are important. The nurse should manage the progress of an online guidance process and the different stages of it. The basic competence of remote reception work includes evaluation of the client's needs and IT skills, and the ability to choose a suitable online guidance method for the client. The objectives of the guidance are planned together with the client. Successful online guidance involves producing high-quality, customer-oriented materials for the client. Customer orientation is the key principle of online guidance. The professional should also be able to assess the success of the guidance.

Assessment of Customer-oriented Remote Receptions

As the amount of e-services increases, professionals need to have the ability to integrate e-services into the client's service package, with special focus on the client's selfcare and guidance, the ease of use and accessibility of e-services, and protection of information security (Sihvo, Jauhiainen, Ikonen 2015, 6). In a nurse's remote reception, nursing work is assessed using existing nursing assessment methods such as the ABCDE protocol and the ISBAR communication method (Alanen, Jormakka, Kosonen, Saikko, Hanste, Meriläinen 2017). The perspective of the development of e-services and the assessment of the effec-

tiveness of operations should also be taken into account in individual service events. The effectiveness data obtained by different methods is used when developing health care services in order to achieve as much health and well-being as possible (Miettinen, Selander & Linnosmaa 2020, 78).

Self-assessment of Students' Competence

At the end of the course Nurse's Remote Reception, the students test and evaluate their competence in remote reception work by answering to 66 statements. After the test, the students receive a short summary of their strengths and areas of development, so that they can focus on developing their digital and nursing competence according to them.

The skills and competence requirements of health care professional are divided in different professional levels, and they have been described in the publication *Skills and Competence Requirements in the Use of e-Services in Health Care.* During the study unit Nurse's Remote Reception, the students assess their skills in the following areas of competence related to remote tools and multi-channel ways of working: ICT skills, interactive online communication and interaction skills, self-management and expertise, positive attitude towards the use of e-services and information technology, wide-ranging service concept thinking, customer-oriented and multi-professional agile development competence and deployment, multi-channel health coaching and guidance competence. (Jauhiainen & Sihvo 2014, 56–63.)

Piloting and Further Development of the Study Unit

The study unit has been piloted by nursing students in the Innovative Nurse project. After completing the course, the students give feedback on the studies. This feedback has served as a basis for further development and planning of the course. During the pilot phase, the course has been in use from February 2021 to May 2021.

According to the feedback from the first pilot courses, the students considered that the contents of the course were up-to-date and that they play an important part in a nurse's work from the point of view of remote care. The course gave the students advanced knowledge that supplements their existing knowledge. According to the feedback, the course strengthened the students' own professional competence for future nursing work. The course was, according to student feedback, clear and logically progressive, and it was possible to be completed at your own pace. The material in the course was also easy to be read. The video lectures were a good addition to other materials and the assignments were diverse and supported learning well.

Some students wanted to have more personal feedback on the assignments. Also, some of the instructions for the assignments were considered unclear and they had unnecessary repetition. As regards the contents of the course, the students hoped for having a more working life-oriented approach and more practical examples so that the students could better perceive the overall picture of the theme. In the future, students' progress in the course needs to be more closely monitored in order to ensure the development of the student's competence.

The online course Nurse's Remote Reception will be regularly developed in accordance with the cooperation agreement between the universities of applied sciences involved in the project. In the future, the course will be available for UAS degree students, open UAS students and CampusOnline students throughout the entire academic year.

A nurse's work and education are becoming more and more virtual - we are actively involved in it!

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Can an Older Person Access Services Online?

Anitta Juntunen

Maija, in her late 80's, from a sparsely populated municipality of Suomussalmi, has purchased a smartphone. She uses it to read local and national newspapers, to look up information on local events, and to make video calls with her children and grandchildren. She has even learned to do her banking on her phone! Maija's slightly younger neighbour, Kaija, is inspired by her friend's example, and with the help of a friendly local salesperson she buys a tablet for her entertainment. However, Kaija has no interest in learning to use any e-services.

Many older people enjoy surfing the Internet for their own pleasure, following the news, learning new things and gathering new experiences. But what happens when all health services, applying for Kela benefits and managing finances are online, and require electronic identification?

Typically, older people are not considered to be the core user group of the internet. According to a study conducted by Statistics Finland, in 2019 80% of 65-74-year-olds had used internet within the last three months, and 50% of them used the internet daily. The corresponding figures for 75-89-year-olds were 41% and 23%. This means that of the aged population, who need a lot of health care services, more than 70% did not use the internet regularly.

In their report in 2018, The Union for Senior Services, VALLI, note that it is not realistic to assume that all old people would be able to use online services. This is unlikely even in the future decades, even though the number of people using digital devices and services increases every year.

"Technology moves forward, but how will the developing technology take into consideration the changes brought on by ageing, such as the deterioration of eyesight and hearing, difficulties hitting the right keys on a keyboard, or memory problems?"

The biggest obstacle in learning to use digital services are prejudices, both of the old person and those of close family members. An old person's idea of him/herself as a learner may be weak, especially when it comes to digital devices. Learning means tackling new products and user interfaces, which may feel complicated at first.
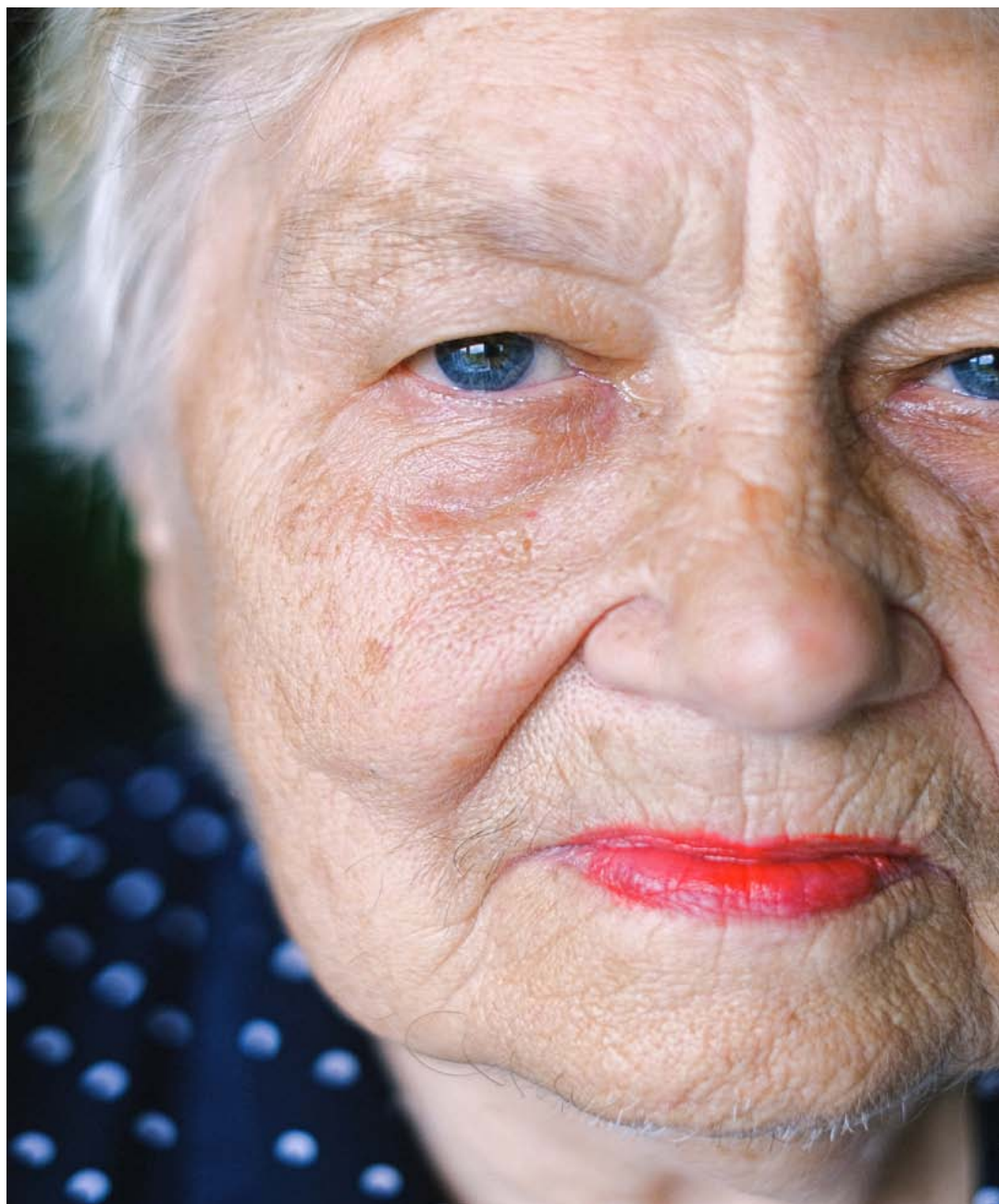
The experience of difficulties can really test an older person's patience, especially if the only purpose for using smart devices is to use e-services. It would be important to discover methods to overcome the early difficulties and experiences of disappointment. In addition to surfing online for fun, an old person might find pleasure in games such as solitaire and different online games. Joining discussion groups and making video calls with children, grandchildren and family members can also be interesting and motivating. Another source of motivation might be the idea that it is easier to run errands from home, instead of having to queue at different offices.

Technology moves forward, but how will the developing technology take into consideration the changes brought on by ageing, such as the deterioration of eyesight and hearing, difficulties hitting the right keys on a keyboard, or memory problems? Not everyone can afford to acquire the latest devices and take care of the necessary security and updates.

In 2019, an Act on Electronic Communications Services took effect in Finland. The purpose of the law is to promote the availability, quality, security and accessibility of digital services, in other words to enable an equal access for the citizens to use online services. The law obligates authorities to make digital services accessible, i.e. easy to use.

Physical environments, buildings and apartments have been made accessible so that older people can move and live independently. In a similar way, older people should have user-driven devices, software, applications and online services designed for them. Ideally, older people would be involved in the design process by sharing their needs and experiences on the devices and e-services. Websites should be easy to read and online services easy to use, and the look of the website should not change with every update.

An e-service that has a separate practice site is a good example of design that considers different user groups. With a practice site an older person can test the features of the website without having to enter any personal information. A service like this would enable practicing with a family member or a digital adviser without an old person having to share personal information when learning. For example, My Kanta Pages offer an online school (in Finnish and Swedish) where it is possible to familiarise with the service in one's own terms.

"Older people need a lot of guidance for using online services. Low threshold services should be offered, where digital advisers or more experienced peers can offer help with acquiring and using devices, updating software and accessing online services. "

Older people need a lot of guidance for using online services. Low threshold services should be offered, where digital advisers or more experienced peers can offer help with acquiring and using devices, updating software and accessing online services. With digital support, Kaija from next door might be encouraged to use e-services.

If Kaija never took the leap to try out e-services, she would need a digital adviser or advising in order to develop media literacy. A user of online materials should be able to evaluate the reliability and intentions of the information, and with a digital advisor an older person may also be inspired to produce content online.

However, traditional services should still be available alongside online ones, so that no-one in the society is left out.

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3   New Teaching Methods in Enhancing Competence

Experiences with the Studification of Work in Practical Trainings at Karelia University of Applied Sciences

Minna Turunen, Riitta Muhonen, Heli Hirvonen, Tiina Lampinen

This article describes the student-oriented studification of work in the Innovative Nurse project in nursing education. This is an alternative way to develop the students' own competence during their studies at Karelia University of Applied Sciences. Work is seen as a starting point for versatile learning and development. In addition, the aim is to offer students more flexible opportunities to work alongside their studies and to utilise the skills they have acquired in their studies. It is important to identify and assess competences that develop through work, bringing work into the learning process and school learning into the workplace. It must be possible to assess competences, so student learning and competences must be made visible for examination and assessment. (Karelia UAS 2020.)

The need for continuous learning, caused by changes in working life and society, is also reflected in the growing number of adult students in higher education. The students have realised that the demands of their own work are changing and want to take the additional studies they need while working simultaneously. In order to combine study and work as effectively as possible, studification is an appropriate way to address the situation. In studification the tasks and skills that students perform in their work are assessed and recognised as part of their studies. (Weiland 2020.)

In nursing studies, studification is an alternative way of studying, and it is based on working and having contractual employment during studies. Studification builds upon both learning skills and developing the learner's knowledge base. It refers to recognising and assessing the skills a student acquires at work, and validating that as credits. The student-centred approach to learning requires students to be self-motivated, self-directed and able to negotiate. The student must view their work in a broader and more in-depth way, to perceive their work as a whole, without forgetting the viewpoint of competences. The practical placements provide an opportunity to reflect on both the student's own skills and workplace practices through theoretical knowledge. The requirement to apply theoretical knowledge and to critically examine one's own work enables the development of the whole work community and its practices. (Karelia UAS 2020, Opi työssä 2016, Vanhanen-Nuutinen 2017.)

In spring 2020, two Karelia nursing students did their practical training for medical-surgical nursing through studification at acute admissions units of inpatient wards at Outokumpu and Lieksa Health Centres. This was the first time that this practical training was carried out entirely through studification. The students also benefited from studification in the practical training in mental health and substance abuse nursing in spring and summer 2020, and in the advanced practical training in nursing in summer and autumn 2021. During the practical placements, the students worked as substitutes for a practical nurse or a nurse.

The Learning Process from the Perspective of the Teacher and the Student

As most of the Innovative Nurse students worked in Siun Sote units or in other sectors alongside their studies, the cooperation with working life was emphasised. In autumn 2019, we discussed the possibilities of studification with Siun Sote's supervisors and education coordinators. The work units saw employment during studies as an opportunity. In studification, students' satisfaction with their studies increases, connection to working life improves and the transition from higher education to working life becomes easier. Learning actions are transferred from the control of the supervising teacher to the student's own work community (Malkavaara & Sunimento 2017). Learning that takes place at work during studies is recognised and students are encouraged to apply what they have learnt. This also contributes to the students' development as future workers who can evaluate and develop their competence in working life. In addition to providing a deeper and broader knowledge base, studification in nursing education enables students to critically reflect on their own work in the work community. It also enables students to develop their working practices and to make use of evidence-based working methods. When the amount and quality of work done alongside studies is planned carefully, it brings synergy to studies, increasing motivation and developing time and stress management. (Airola, Sillanpää & Vuori 2017, Vanhanen-Nuutinen 2017, Viirumäki & Salo 2019.)

"As most of the Innovative Nurse students worked in Siun Sote units or in other sectors alongside their studies, the cooperation with working life was emphasised. "

The students' competences were mapped through one-on-one discussions at the beginning of their studies in spring 2019. The possibility of studification of their own work was communicated to the students at the beginning of their studies, when they were planning the practical placements for their studies. Students in the Innovative Nurse group have had more individual guidance than normal throughout their studies and the aim has been to make the guidance proactive. Guidance has taken the form of online, telephone, email, and group guidance, as well as annual individual or group development discussions. The teachers have gained a new way of thinking, they have moved from the traditional model of teaching to the role of tutor or coach. It has been important to recognise that competence development in students can take place in many ways, not just in traditional classroom teaching. Developing new approaches has required the UAS and teachers to be agile and flexible, and to imagine and experiment with new practices. In this Innovative Nurse group at Karelia UAS, a tutor teacher and a study counsellor have worked together as a pair to guide all practical trainings. This model has allowed for flexibility and proactivity in changing situations. The teacher and the study counsellor have also got to know all the students in the group, which has helped to support individual development. Pair work has allowed for smooth and strong collegial peer support and strong sparring in the development of one's own teaching skills.

The learning outcomes of the course or practical training should be used as point of reference when considering studification for practical placements. In Karelia UAS nursing education, each placement has its own nursing theme. The placements are classified ac-

cording to a theme, e.g. medical-surgical nursing, or mental health and substance abuse nursing. All practical placements have their own self-assessment and feedback forms.

The students explored the possibility of studification in advance with their supervisor. The students then confirmed the possibility with the teacher supervising the practical training. The student had a designated nurse supervisor or supervisors with whom the student tried to work as much as possible. Regular discussions with the nurse supervisor on objectives and competency assessment were required. Students set their own personal and concrete objectives that supported their learning in the areas of internal medicine, mental health and substance abuse nursing or advanced nursing in their own work unit.

During their internships in internal medicine surgery and mental health and substance abuse nursing, students worked as practical nurses. In the advanced practical training in nursing, students worked as nursing substitutes. With studification, they were given the opportunity to carry out the essential tasks of a nurse under supervision. The students had regular discussions with the supervising teacher and wrote a learning diary to show their progress. At the end of the practical training, the student, the supervising teacher and the nurse supervisor held a feedback discussion to assess how the objectives of the practical training were reached, studification and cooperation. At the end of the placement, the students wrote a separate reflection in their self-evaluation, describing their own studification process as a whole.

Students' Experiences of the Learning Outcomes of Their Placements

The studification process started when the charge nurse and the assistant charge nurse learned about studification in a meeting organised by Karelia University of Applied Sciences in autumn 2019. The meeting was also attended by the education coordinators of Siun Sote.

> ""From the beginning of studies, I had thought and hoped that I could do an internship in internal medicine in my own work as a paid trainee. It was great that studification was so straightforward and easy to arrange with my supervisor at the workplace. The paid practical training was a great way to support my studies financially, as I did not have to take a study leave."

Heli Hirvonen did the practical training at her workplace. Photo: Sanna Laukkanen.

The students therefore had no preconceived ideas or previous experience of the studification of work in practical training.

> "It takes self-discipline, taking responsibility, switching between tasks and a lot of pushing yourself to achieve the objectives of the practical training."

The students faced some challenges and there was some confusion when they had to orient themselves to the role of a student while working as a practical nurse

> "During the first weeks of my practical training, many of my colleagues asked me at the beginning of my shift if I was a student or an employee, to which I replied that I was a studying employee."

As the traineeship progressed, everyone adapted to the studification process and the practical training went well and new skills were acquired.

"As the Period Progressed, It All Became Easier."

Doing the practical training at the workplace meant the students didn't have to spend time getting to know places and working methods; there was no need to "learn the ropes" at the workplace. The familiar place and rhythm made it easier to focus on exactly what I needed to train and learn. The encouraging support of my colleagues was wonderful and important, which meant that I often had the courage to try new things without feeling nervous. The good thing about the studification was that I could concentrate on learning the tasks of a nurse properly, because as a practical nurse I only had a superficial knowledge of nursing. It was also easier for the instructors to concentrate on the task at hand, i.e. teaching nursing skills.

Soon the tasks started to flow smoothly, without having to switch back and forth between the different tasks. It was great to see how in the role of a student nurse it was possible implement holistic nursing care. As the practical training progressed, I was given more responsibility for medication management and more involvement in the medical round. In these situations, the supervising nurse at the workplace was more involved in patient care and the student focused on, for example, the medical round and the tasks related to it. The learning in this area of nursing taught a lot. For example, in the first week we were just listening in on a medical round, and in the later parts of the practical training we participated in the round independently with the doctor for the patients who were under our responsibility. There could be 8 or even 15 patients per student, and it was always possible to ask for help if you didn't know something or needed guidance.

The studification gave confidence in certain areas of pharmaceutical care. *"For example, if a patient has pain that you are also trying to control medically, it was easier to make a decision about what form of painkiller to give. For example, should it be given orally or could you give it as an injection. If a patient has a high inflammation score, you almost already know that you're going to start an IV antibiotic for that, in which case you'll discuss the antibiotic with the doctor."* The practical training allowed me to see and experience the extent to which nurses make independent decisions about patient care, while gaining the confidence to work as a nurse.

At the beginning of the practical placements, it was difficult to structure the learning of nursing skills in addition to one's own work as a practical nurse so that the workload did not increase too much during the shift. The challenge in studification was sometimes to get the tasks and responsibilities to "match" during the shifts. One obstacle to studification could be

a situation where the student and the supervisor are not committed to the process. In a situation like this, the student's objectives and the overall objectives of the placement would not be met. Fortunately, such challenges did not arise.

I am a student, but also an employee. In the past, my supervisors were used to having the student not as a worker, but as an extra, which allowed the supervisor to concentrate on the supervision in peace and quiet. In studification, supervision takes place along the work of a nurse and a practical nurse. Choosing a nurse supervisor may not always be easy in a familiar work community.

Benefits for Both the Student and the Workplace

In spring 2020, there were changes to the number of internships reserved for students due to the Covid-19 pandemic. Practical placement opportunities for mental health and substance abuse nursing were cancelled. As a result, some nursing students completed the internship for this theme in their own work. The workplaces included, for example, home care, health centre hospitals, emergency care or intensive sheltered housing units. In the cases where practical trainings were done as studification of work, it was particularly important to plan and personalise the objectives of the practical training around the themes of mental health and substance abuse nursing. The workplaces were very collaborative, and offered the students an opportunity to also care for mental health and substance abuse clients/patients.

The final placement of the nursing studies, an advanced practical training in nursing, was an opportunity to work in the student's own workplace as a nurse. The students had a chance to expand their skills, get good orientation and guidance, and the workplace gained a competent and committed nurse. In this way, both the workplace and the student benefited from the situation. In the sparsely populated areas of North Karelia the shortage of nurses is a real issue.

"The Studification Paid off"

A tip we could give to those who are enthusiastic about studification is to be sure that you can achieve the competence goals of the practical training in your own work unit. Set concrete and realistic competence objectives so that you can achieve them during the traineeship. The knowledge base learned at school will be put into practice at work. In your own workplace it is possible immediately put what you have learned into practice and bring new things and ideas into the work community. This may be easier in a familiar work unit than in a more unfamiliar practical placement. The work community also gets the latest information through the student.

> *"Take the plunge and try a new form of practical placement. I highly recommend it, it was a positive and educational experience for me."*

Working during your studies is no longer a problem, but an opportunity. Studification tools increase student satisfaction with the studies, improve their attachment to the world of work and facilitate the transition from university to working life.

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Mentoring as a Support for the Professional Growth of Nursing Students at Lapland University of Applied Sciences

Anne-Mari Savukoski & Sirpa Kaukiainen

Mentoring has a long history, and the benefits of it have been recognised in various disciplines already in the last century. In nursing literature, the study of mentoring began in the 1960s. (Maggs 1994.) As a result of several impact studies, people are today aware of the benefits of mentoring and mentoring is applied in health care as a tool for professional guidance. (Levenson, Van der Stede, Cohen 2006; Kinnell, Hughes 2010; Jokelainen, Jamookeeah, Tossavainen, Turunen 2013.)

There is no basic definition of mentoring, as mentoring in business, health care and academic environments has slightly different meanings (Jacobi 1991). In addition, mentoring has developed new forms as it has been evolving. According to the Finnish National Agency for Education (2014), mentoring is based on the interaction between the mentor and the mentee for sharing information, increasing social capital, and providing psychosocial support for the mentee.

"Within the Innovative Nurse project, mentoring was carried out as group mentoring, where one mentor or a pair of mentors guides a group of mentees."

The main objective of mentoring is to support the mentee's professional growth (Abdullah et al. 2014), growth as a member of a work community and as a human being, as well to provide experience-based information ("tacit knowledge") from a more experienced expert to a novice (Juusela et al. 2000, Leskelä 2005). The aim is to encourage mentees to look at their own activities and attitudes, to help them find their own strengths, and to promote the goal-orientation of work and the resilience of diversity. Mentoring also aims to improve cooperation skills, support the reconciliation of work/study and family, and strengthen the management of one's work role and well-being at work. (Leskelä 2005, Mäkinen 2014, Kupia, Salo 2014.) According to Nikki et.al. (2010), mentoring is a way to support a nurse's career development and professional growth, and to use is as a method of work orientation. According to Sairanen (2004), nurses considered mentoring an important method of developing professional competence in nursing and they wanted mentoring to become a development method in nursing and in nursing education.

Mentoring has different forms, such as individual mentoring, peer mentoring, reverse mentoring, and group mentoring (Rantala 2008). Within the Innovative Nurse project, mentoring was carried out as group mentoring, where one mentor or a pair of mentors

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guides a group of mentees. Group mentoring allows peer support. In group mentoring, the relationship between mentors and mentees is not as deep and confidential as in individual mentoring and the topics cannot be handled in such depth (Rantala 2008). According to a study by Holmlund et al. (2010), the mentees, however, learn more in groups because they share their experiences together and discuss them. Furthermore, according to Lewis et al. (2011), mentees learn more when they are able to freely discuss their experiences and problems and get perspectives and solutions from each other.

Roles of a Mentor and a Mentee

The mentor's role emphasises the expertise in one's own field, the courage to bring out new perspectives and to give room for reflective thinking and processing of things, and encouraging mentees to recognise and use their strengths as help in career planning (Odom 2003, Leskelä 2005, Mäkinen 2014). According to Frederick (2014), mentors are role models who want to share their own professional knowledge and skills with new nurses and support and take responsibility for supporting them in their professional careers.

According to Karjalainen (2010), a mentor must have the ability to listen and respect other people, and to be honest, motivating and safe. As a mentor, a nurse can be described as a supporter, master, instructor, teacher, encouraging peer, or advisor. The mentor can also play the role of a questioner; through mentor's questions, mentees can reflect on their actions and, thus, grow professionally. (Isotalo 2010.) According to a research article by Vinales (2015), the role of a mentor is important when nursing students apply their theoretically acquired skills to practical work. The mentor also plays an important role in alleviating students' stress during their practical training periods.

The mentee's role emphasises responsibility for one's own learning, growth and development, activity to raise issues, set goals and evaluate them, and the ability to critically view one's own activity. In addition, it is important for mentees to be open for new perspectives and, if necessary, the ability to end the mentoring relationship. (Odom 2003, Leskelä 2005, Juusela 2006, Mäkinen 2014.)

Mentoring coaching enables mentors and mentees to realise their own roles and duties and receive support for the continuation of the mentoring relationship. In coaching, they also understand the importance of the mentoring relationship and the factors affecting it. They also receive "tools" for mentoring and guidance during coaching. (Helakorpi 2006.) Tools developed for mentoring are mentors' tools in discussions for increasing interaction and reflection of issues from different perspectives (Kupias, Salo 2014).

Dialogue in Transferring Tacit Knowledge and Supporting Professional Development

In dialogues, mentees learn to reflect on their own activities. Reflection is an activity in which an individual or a group explores what they experience, do, and think in order to better understand them. To be able to reflect, one needs to stop first. For example, we can repeat an inefficient practice at work if we do not stop to reflect on our activities. The goal of mentoring is that the mentees reflect on their own activities in relation to their objectives. Mentors have succeeded when mentees have learned about themselves, their activities, and the values and beliefs that direct their own activities. (Kupias, Salo, 2014).

Transmission of "tacit knowledge" is important in a mentoring relationship. Nurminen (2000) defines the concept of "tacit knowledge" as the ability to identify and interpret those phenomena of nursing that are difficult to be described in words and that come up in the work of an experienced nurse. "Tacit knowledge" appears, for example, in decision-

making situations and in the process of discovering what is essential and what is not. It arises from the nurse's inner feeling, and it is usually dependent on the instinct of an experienced nurse. (Nurminen 2000; Kurtti, 2012.) Transmission of "tacit knowledge" from an experienced employee to an inexperienced employee is considered a challenging task and it is best achieved through mentoring (Ketola 2010).

In nursing, mentoring strengthens mentees' confidence in their clinical skills in nursing, develops critical judgement towards one's own work, increases self-confidence in working more effectively, increases knowledge, and develops competence and improves collaboration skills (Leskelä 2005; Frederick 2014).

Mentoring Within the Innovative Nurse Project

In the province of Lapland, experienced nurses were selected as mentors. Good interaction skills, the ability to see students' strengths, and the ability to support students in learning were used as the most important selection criteria. Mentors' ability to share their know-how and to commit to their role was also emphasised. The mentors were experienced nurses who worked in the same organisations with the students. All 20 students selected for the Innovative Nurse education participated in the mentoring programme.

Each student belonged to a mentoring group. The mentors located in Kittilä region mentored the groups in Sodankylä and Muonio-Enontekiö. The mentoring groups in Posio and Rovaniemi had one mentor. In education, the mentoring process is usually structured, and the mentors are chosen by the organisation (Kupias, Salo 2014). The students were being mentored, i.e. they were mentees. During the project, the mentees committed to mentoring coaching, regular mentoring meetings, evaluation, and writing a learning diary.

"The mentors were experienced nurses who worked in the same organisations with the students. All 20 students selected for the Innovative Nurse education participated in the mentoring programme."

In this project, mentoring took the form of group mentoring. Each group had 3-6 students and one mentor or a pair of mentors. The mentors committed to organising mentoring meetings for student groups; first once a month and later every two months throughout the entire education. They committed to participating in the mentoring coaching and evaluation, and writing a learning diary.

The mentors in the project had a lot of experience in mentoring, but they had not had mentoring coaching. Therefore, mentoring coaching was organised to support the students and mentors in the progress of the mentoring relationship. During the mentoring coaching, the mentors networked and also discussed issues related to work and working life in different municipalities. One mentor also presented a digital project in their own municipality. Education Planner, Psychotherapist, Master of Health Sciences, Anne-Mari Savukoski, worked as the mentoring coach in this project. The coach was responsible for informing Lapland UAS about the issues raised during the mentoring meetings. Close cooperation with project employees and the coach was considered important, enabling continuous dialogue and the emergence of new forms of activity.

Mentoring Meetings

The mentoring process started in autumn 2019 and lasted until the end of the nursing education, i.e. until December 2021. The first phase of the mentoring process was creating mentor-student groups. Before starting the mentoring meetings, students got acquainted with their mentors. On the first day of studies, a meeting was organised at Lapland UAS in Rovaniemi to discuss mentoring as a concept and each mentor and student group agreed on a time for the first mentoring meeting in their municipality. During the first mentoring meeting, the mentor and the students drew up and signed a mentor-mentee agreement with a schedule, frequency of meetings, place, objectives, strengths, and rules and regulations.

In the middle of the mentoring process, the mentor-mentee groups had meetings once a month, 1-1,5 hours at a time. Later, the meetings were held every two months. The coaching between mentors and mentees went hand in hand during the whole time. Mentoring coaching was provided separately for mentors and then for mentors and students as a group. The aim of the meetings was to clarify the objectives and to increase motivation. At the beginning of the meetings, the experiences were first discussed together and then the mentors and students got into their own groups; the mentors received support for the use of mentoring tools and mentees for the ways of recognising the benefits of mentoring.

The students were responsible for preparing for the mentoring meetings by thinking about the topics to discuss. The students held the main responsibility for learning, and they were also responsible for being active and having the courage to ask questions and raise issues. The content of the discussions was based on the students' own needs. After each meeting, the mentor asked for an evaluation from the students; what did they learn, what was essential, were the topics covered in the meeting important for them, and did they feel that they thoughts were heard.

The structure of an individual mentoring meeting evolved during mentoring coaching (Figure 1). The mentor first asked the students to talk about their current thoughts and feelings and asked them to tell the others what had happened since the last meeting. According to student feedback, it is important for the students to have the opportunity to talk about urgent issues. After these discussions, previously planned themes were covered. These themes had been agreed on based on joint discussions through mentoring tools and were often the mentor's own areas of strength and the students' areas of development. Finally, the mentor asked the students to evaluate the meeting with the following questions: What did you learn during this meeting? What was important? Did you feel like you were heard?

Mentoring Monitoring and Evaluation

During the project, experiences and development suggestions on mentoring were systematically collected from students/mentees and mentors by using Webropol surveys and Teams discussions. In Teams discussions, the coach asked each student and mentor about their mentoring experiences from a different perspective than in the Webropol surveys. These interviews focused on motivation and on the clarification of goals. The main focus was that every student and mentor would become heard. The aim was also to increase students and mentors' understanding of mentoring and of the benefits of mentoring meetings.

Students' Thoughts on Mentoring

According to the results of the survey, students had first difficulties in understanding the benefits of mentoring. However, the students became gradually aware of its importance

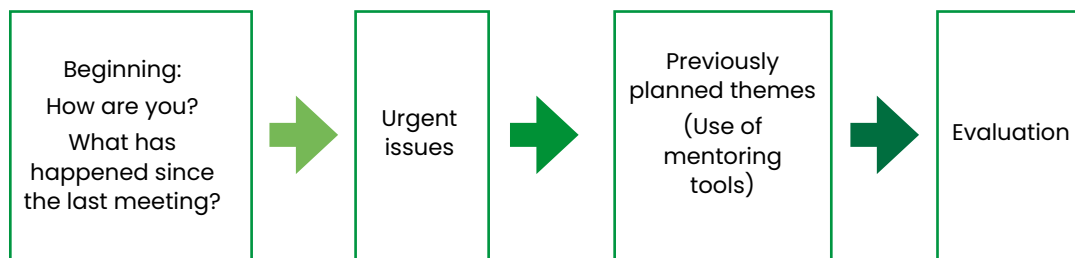| Beginning: How are you? What has happened since the last meeting? | → | Urgent issues | → | Previously planned themes (Use of mentoring tools) | → | Evaluation |

Figure 1. Mentoring meetings

and stated that they need more mentoring support during the practical training period than during the theoretical sessions. Although each nursing student was appointed a supervisor from the practical training placement, they felt that they needed peer support from mentoring meetings. The students told us that they needed more time to discuss the thoughts and emotions that arose during the practical training. They also felt that the meetings supported their team spirit and sense of solidarity.

At the beginning of studies, the most important topics covered included learning assignments and possible problems related to them, digital learning environments, exams and medical calculations exams, as well as different types of learning methods and styles. Some students felt that they needed support for the process of becoming a nurse. Mentoring was considered both challenging and interesting. The mentoring relationship was seen as a good support for reconciling school and work, and it also gave encouragement to studies and tips on challenging issues, such as school assignments and questions related to practical training. Ethical aspects of nursing were also covered in the discussions. The students felt that they had received tacit knowledge from their mentors as well as information about the work-related practices and future careers in their own locality. Challenges in the practical training posed by the corona epidemic were repeatedly brought up in the discussions. The students felt that the mentoring relationship supported their own welfare and coping.

"The students felt that they had received tacit knowledge from their mentors as well as information about the work-related practices and future careers in their own locality."

The students rated the following aspects of mentoring high in the surveys: mutual trust, appreciation, the possibility to be heard, reciprocity, and joint reflection. The students also appreciated the recognition of one's own strengths, especially at the end of studies. Some of the meetings took place in Teams. However, according to students, joint face-to-face meetings were considered better than online meetings and there were occasional problems in them caused by poor connections. The need for face-to-face meetings increased during the education.

"I have found mentoring important, it has especially helped me to look at my own work as part of a team. Being a mentee has taught me to raise issues that are important to me."

"Mentoring has helped me in my studies. I have been encouraged and supported and my mentor has taught me to see my strengths."

"Mentoring has helped me to cope and deal with issues regarding e.g. practical training."

"I have felt that mentoring is good support for my studies, and I have gained new perspectives on how to reflect on things."

"I have been motivated to conduct practical training and work, I have been engaged in good conversations, and got tips for reconciling family, work and studies."

"Mentoring supported me to look at my own activities in practical training."

According to development suggestions in student feedback, the need for mentoring meetings especially during practical training periods and at the beginning of studies was questioned. The students also wished that the mentors would be from their own localities and that the meetings would be arranged face-to-face. Individual meetings were requested, especially in case of personal issues that needed to be discussed.

Mentors' Experiences on Mentoring

The mentors considered the mentoring process as interesting and challenging, and it was also a process of personal growth. The received feedback showed that the mentors had received additional content and a new perspective on their own work through mentoring. They had also discovered their strengths and their interaction skills and their ability to listen had evolved. The mentors felt that it was important that they had been able to support others through their own experiences and expertise.

The mentors also pointed out that they have learned to discuss challenging problems, to reflect on issues, and to tolerate uncertainty. The mentors stated that trust, openness, and appreciation were significant in the mentoring relationship. Coaching was also considered important during the mentoring relationship.

According to the mentors' feedback, the discussions became more informal and natural after the beginning, and it was then easier for the students to raise issues. It was important for the mentors to see the professional growth of their mentees. At the beginning, it was challenging to schedule the meetings, but as time went by, it became easier. At first, the mentors were unsure whether they could help their mentees, but through mentoring coaching they learned to tolerate this uncertainty. The mentors rated the following aspects of mentoring high in the surveys: to give time to mentees, to share their experiences, and to share tacit knowledge. The mentors felt good about themselves when they could support the students' professional growth. According to the mentors, issues raised by students challenge their own thinking, ethical reflection, and professional identity. Examples of mentors' feedback:

"It was nice to see the students' progress in studies and their growth towards being a nurse."

"I felt mentoring was useful for both the students and myself. The students had a place to come to and share their experiences and I, as mentor, was able to share my experiences with the students."

"I have been forced to think about my own actions more: why do we do certain things?"

"In mentoring, I have gained new perspectives and enthusiasm for my work."
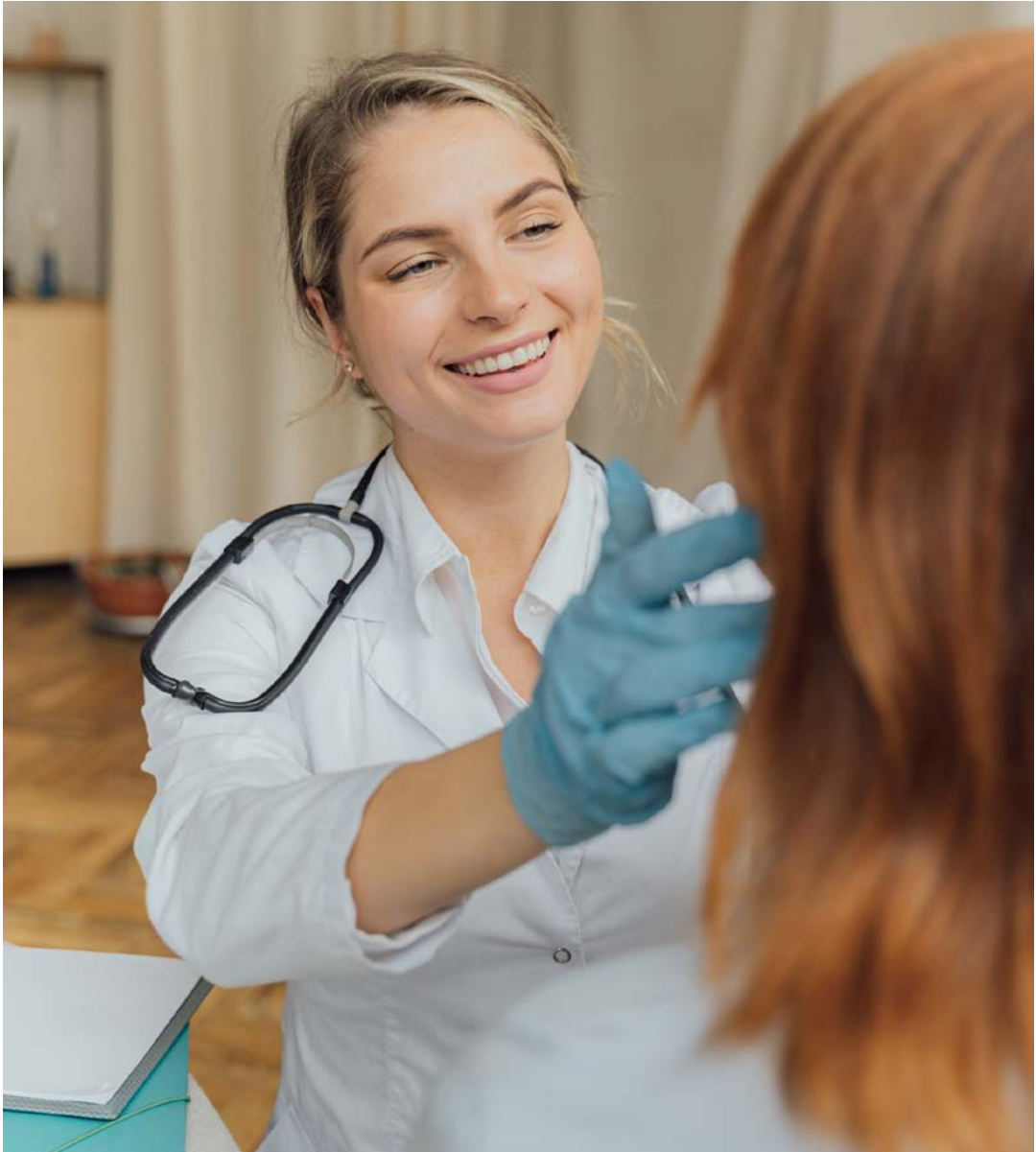
"I have learned the importance of listening and gained new models for meeting different types of students/employees."

The mentors felt that their discussion and listening skills had developed as well as their skills of presence. In addition, their interaction skills online had evolved. The mentors got tools and perspectives for mentoring meetings, but also for supervisory work.

In the mentoring relationship, the mentors highlighted the importance of trust, commitment, reciprocity, and student's own activity. The mentors also felt that face-to-face meetings were better for mentoring than online meetings, and they felt that working in pairs was easier that working alone.

"The mentors considered the mentoring process as interesting and challenging, and it was also a process of personal growth."

According to development suggestions in mentors' feedback, the mentors pointed out that students should receive more guidance on the objectives and use of mentoring at the beginning of their studies. Mentoring coaching requires time and financial resources. Schedules should be planned for the entire education already at the beginning so that work shifts can be planned according to them. In the future, it would be important that the mentors had an understanding of the curricula at universities of applied sciences, of the timing of the education, of teaching methods, and of a nurse's competence requirements. It would also be good to have knowledge of different learning methods and perceptions.

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Remote Simulation Experiment in Mental Health and Gerontological Nursing in Collaboration of Three Universities of Applied Sciences

Jaana Kemppainenn

I n the Innovative Nurse project, a remote simulation experiment was carried out in co-operation between Kajaani, Karelia and Lapland Universities of Applied Sciences on 29 September 2020. The simulation brought together the contents of the courses in mental health and gerontological nursing. The courses were part of the undergraduate studies of nursing students. The participating universities of applied sciences designed the simulation together, and it included students' competence objectives, reviewing the contents of simulation scenarios, and preparing a feedback survey to be sent to students. The practical implementation of the simulation was carried out by Kajaani University of Applied Sciences (KAMK).

Simulation Pedagogy in Nursing Education

Simulation pedagogy refers to learning in a safe and prepared setting similar to the real world. In the simulation, it is possible to apply previously learned theoretical knowledge into practice. The purpose of a simulation exercise is to develop the student's decision-making and problem solving skills as well as critical thinking. The learning process is divided into three main phases. In the first phase, the simulation will be prepared through an assignment to create a realistic picture of the objectives and content of the simulation. The second phase includes a simulation exercise situation where students work to solve the simulation task. In the third phase there is a debriefing, where the simulation exercise is reflected. The entire group of students participating in the simulation discusses the course of the exercise. The focus of the debriefing is on successful performances that meet the exercise goals. (Salakari 2007) In the simulation exercise the student can make mistakes and learn from them without any harm to a patient. The exercise is conducted in accordance with professional ethics guidelines (Ammattietiikka ja kollegiaalisuus N.d).

The Progress of Remote Simulation

The remote simulation had key competence requirements that were based on the curricula of universities of applied sciences. The focus was on a holistic view of nursing, especially how older people and the patients are considered, as well as the use of technology and e-health services. The learning objectives of the simulation event were as follows:

The student is able to dialogue with person in crisis who is mentally ill, and who has substance abuse problems. The student can support the patient in a necessary, resource-driven and participatory manner in the planning, implementation and evaluation of care, in cooperation with those involved in treatment.

The student is able to assess the physical, mental, social and cognitive ability of an older person and recognise the risk factors of functional ability. The student is able to promote the health of an older person and can carry out care work for an older person in support of his or her autonomy and participation in various operating environments.

The student is able to utilise technology related to housing and communication and supporting health surveillance and services. (Sairaanhoitajakoulutus, Bachelor's Degree in Nursing 2019.)

The case descriptions of the scenarios were situated in older people's homes and linked with a nurse's home visit or rehabilitation visit. There had been a big change in the customer's condition compared to the previous home visit. The change was caused by the most typical mental or gerontological medical and nursing challenges faced by older people, such as excessive alcohol consumption, loneliness and the resulting changes in well-being, as well as issues related to medication.

"The purpose of a simulation exercise is to develop the student's decision-making and problem solving skills as well as critical thinking."

Picture 1. Scenario 2. Students work as nurses and as a client. Photo: Jaana Kemppainen.

Picture 2: StudioK remote learning environment. Photo: Jaana Kemppainen

KAMK students participated in the simulation on site in the StudioK simulation space. StudioK is KAMK's new simulation learning and test environment that enables good remote communication and takes remote healthcare into consideration in teaching. A place for the working life and educational institution to come together, StudioK has been specially developed to meet the needs of technology-assisted remote healthcare, which enables the development of telecare processes based on the needs of a sparsely populated area. (KAMK:n simulaatio- ja terveysteknologian testiympäristö – KAMK's simulation and health technology test environment (StudioK) 2019)

From StudioK, KAMK organised a Teams meeting with other universities of applied sciences. Students took part in the event from distance locations using the chat or Mentimeter. Students from other towns helped the working nursing team solve the client's problem and participated in the debriefing discussion. Each simulation day had three customer scenarios, based on mental health and gerontological nursing studies. In the first two scenarios, KAMK students and teachers act as simulation actors and nurses. The last scenario was fully implemented remotely and those who work as nurses were students of Karelia University of Applied Sciences.

Excellent Feedback from Students

The Webropol survey was used to create student feedback of the remote simulation day. The response rate was 38 %. Respondents assessed the content and implementation of the training on a 5-step Likert scale from one to five (1-5). The value of one corresponded to a claim of poorly achieved claim and the value of five meant the claim was very well realised on the day of the simulation. According to respondents, Scenarios 1-3 responded well or very well to the students' current skills needs (avg. 4.7). Students were able to make good or excellent use of their learning (avg. 4.8) to develop their own competence. Respondents estimated that they had achieved the curriculum learning objectives well (avg. 4.3). According to students, remote connections worked well (avg. 4.4) and they assessed their own skills to work in renovated and remotely demanding environments as good (avg. 4.4). Students assessed their own activity to participate in the training day as good (avg. 4.0). According to the respondents, the overall score from the simulation date was excellent (avg. 4.7).

According to the students, the remote simulation event should be developed in such a way that it motivates remote students to participate more actively. Different pedagogical means should be used for the simulation and the debriefing discussion. In addition, some students would have needed more time to think about their own personal solution, so that they could have written their own observations and compared their own conclusions with the final solution of the scenario, in order to develop their own competence.

One respondent's view of the dat

> *"All in all, the day was nice and educational. The simulation was much more comfortable this way than with the old method. The use of technology is relevant today and brings new opportunities."*

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Escape Games Applied to Problem-solving in Nursing and e-Learning in Teams

Jaana Kemppainen & Taina Romppanen

Three universities of applied sciences; Kajaani UAS, Karelia UAS and Lapland UAS piloted a remote escape game for medical calculations within the Innovative Nurse project. The escape game was part of the students' advanced special studies, e.g. acute nursing studies at Kajaani UAS. The planning of the game pilot included defining students' competence objectives and contents of studies, and planning a feedback survey. The practical implementation of the game was carried out by Kajaani UAS.

Mysteeri 24/7 is a project funded by Kela and implemented by Kajaani UAS, Laurea UAS and Häme UAS. The project aims to develop a virtual (VR) escape game for the professional rehabilitation of adolescents and young adults as well as a handbook for professionals to be used as a support in the application of the game (Mysteeri 24/7 2020). The Mysteeri 24/7 project has applied the idea of escape games into serious games, and this expertise was also applied within the Innovative Nurse project.

Escape Games as a Support for Learning

Escape games are popular entertainment games that can also be used as a support for learning (Koiranen 2019). When the primary purpose of a game is to provide benefits instead of entertainment, the concept of a "serious game" is used. Serious games allow the player to develop a variety of skills and to experience things that are not in the real world. Serious games have, thereby, been developed for a wide range of uses (Susi et al. 2007), such as as a support for mental health and psychotherapeutic treatment of young people (Heinonen et al. 2020, Korhonen et al. 2021).

In escape games, a group of people is trying to solve problems related to a specific theme or story within the given time. In order to solve the problems, problem-solving skills, stress tolerance and, particularly, teamwork skills are required. The limited gaming time creates pressure and adds a competitive spirit. Escape games are often called escape rooms, as escape games are often played in a closed room to be escaped from, especially in entertainment purposes. However, escape games can be played in a wide variety of places. Different types of methods are used in escape games, such as searching and combining, and the structure of the game can be simple, linearly moving from one problem to another, or a multi-stage game. Before the game starts, the players are informed of the rules, and clues can be provided for solving difficult problems. Thus, a good escape game offers a variety of challenges and experiences of success. (Kortesuo 2018, Koiranen 2019.)

When escape games are used as a support for learning, the aims and problems of the game are linked to the subject to be studied and to the competence to be acquired (Koiranen 2019). In nursing education, for example, these subjects may be medical calculations and decision-making skills. The debriefing of the game experience is essential in the learning process. It requires that the player processes the game in such a way that

the information gained during the game is actually understood. There are different ways of debriefing, and they all require a professional touch from the leader of the debriefing. (Sanchez & Plumettaz-Sieber 2019.) It is recommended that the debriefing is structured in a clear way, that the players' behaviour and results are reviewed, and that they receive constructive feedback from their activities. Therefore, a good escape game experience alone does not guarantee learning. (Zhang et al. 2018.)

In recent years, the pedagogical potential of escape games has been realised both in Finland and internationally. There are numerous ways to implement escape games and they can also be implemented online and with a variety of technological tools. (Koiranen 2019.) An example of a serious game that applies escape game pedagogy is a virtual puzzle room for studying digitalisation in the field of social and health care. The room was created within the SotePeda 24/7 project, and it is played with virtual glasses or as a PC version. The game can also include different types of pre-assignments and debriefing assignments so that the game experience supports learning. (Romppanen 2021.)

In nursing education at Kajaani UAS, escape games have been used for a couple of years in, for example, acute nursing studies. As distance learning methods have been evolving, the games have been modified from classroom versions to online versions, and one of these games was used in the Innovative Nurse education.

Implementation of an Escape Game in the Innovative Nurse Project

A joint escape game by Kajaani UAS, Karelia UAS and Lapland UAS took place on 15th March 2021. Students were instructed on the game by email three weeks before the game. The instructions gave a brief description of pedagogical escape games and a request to practice medical calculations by calculating e.g. intravenous drip speed, solutions, dilution, and dosing in advance. In addition, the students were asked to download a QR code reader on their phones before the lesson, as it was needed for opening the game. The students were divided into teams of three so that each team had one student from each university of applied sciences. A Teams connection was used for playing. The rules for the game were discussed at the beginning of the lessons (15 min) and cooperation and teamwork skills were highlighted in the process of solving problems. Before playing, the students tested that their QR code readers worked well (Figure 1).

Figure 1. QR codes for opening the games. Picture: Taina Romppanen.

The students played an escape game (45 min) as a team on the Moodle learning environment of Kajaani UAS. The students were allowed to use tools, such as a calculator, during the game. If needed, the students could request a clue from the teacher by phone, using the ISBAR method (Identify, Situation, Background, Assessment, Recommendation)

for improving consistent spoken communication and patient safety studied previously during the education (Nurses' professional tools n.d.). A final discussion, i.e. debriefing, of 30 minutes was arranged after the game to review the game experiences and learning.

The students gave the following oral feedback of the game: "It was nice to play in co-operation with students from different universities of applied sciences and notice that we were able to work together." The game was smooth to be played online and the ISBAR method for calling the teacher for help proved to be successful, even if the teacher was unfamiliar for some of the students. Solving the problems was challenging and not all students made it till the end, but this kind of a teaching method was thought-provoking and gave new ideas for studies.

"Solving the problems was challenging and not all students made it till the end, but this kind of a teaching method was thought-provoking and gave new ideas for studies."

Student feedback of the game was also collected with a Webropol survey. A total of 60 students from three universities of applied sciences participated in the escape game and 14 students responded to the survey. Eleven respondents were from Lapland UAS and three from Kajaani UAS. The respondents assessed the content of the education, achievement of one's own goals, and the implementation of the escape game on a 5-step Likert scale (1–5). Value one (1) was used for poorly achieved goals and value five (5) for excellently achieved goals. According to the students, remote connections and the used learning environment Moodle had worked well (average 4.0). Students' own activity in the game and collaboration with the team had been excellent (average 4.5). The respondents estimated
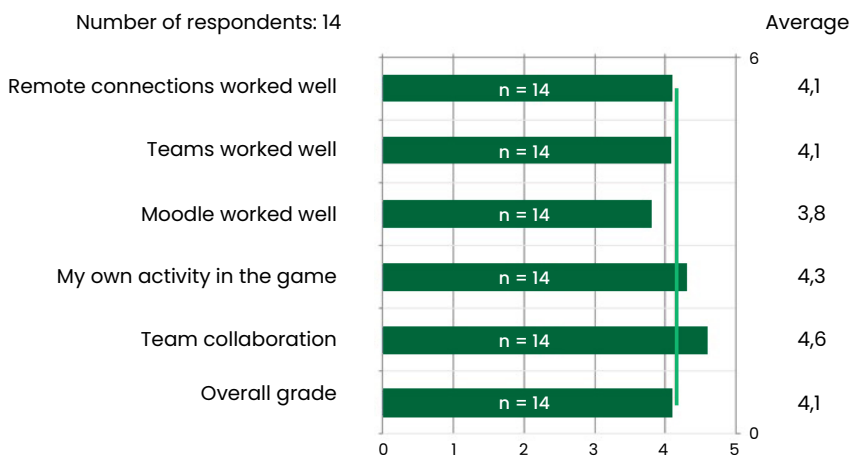

Figure 2. Implementation and evaluation of the escape game

that they achieved the learning objectives in the curriculum well (average 3.9). The students were able to solve medical calculations and act in problem-solving situations. The overall grade for the escape game experiment was 4.1. (Figure 2.)

Different types of teaching methods, such as escape games, are suitable for some people, but not for all. The same certainly applies to teachers and subjects to be studied. A good escape game can immerse the players in the game and the method of gaming can inspire competitive students. They can also provoke unseen abilities and set students in unexpected roles. As escape games are immersive and intensive, they can reveal the participants' ability to operate under pressure. (Koiranen 2019.) These issues were also observed during this game within the Innovative Nurse project. Escape games can also inspire teachers to develop their work and to learn new things, to tolerate the uncertainty of development, and to be excited together with the students. Thus, you can really learn by playing escape games!

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Ensuring Competence in Innovative Nurse Training

Mari Savolainen, Tarja Ruokonen, Kirsi Varis,
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The aim of this article is to describe the development work carried out during the Innovative Nurse project at Karelia University of Applied Sciences to demonstrate the competence of nursing students and make it visible during their studies. Nursing studies at the University of Applied Sciences consist of basic and professional studies, complementary studies, practical trainings that promote professional skills, and a thesis. (Government Decree on Universities of Applied Sciences 1129/2014). The nursing degree at Karelia UAS consists of work-based core competences (180 credits) and supplementary competences (30 credits). (Karelia UAS 2021).

Nursing is a legalised profession. The right to practise is conferred on the holder of the required qualification. Valvira, the Finnish Social and Health Licensing and Control Authority, registers graduates in JulkiTerhikki, the central register of health care professionals. Valvira also maintains central registers of social and health care professionals to carry out its supervisory tasks. (Valvira 2021.)

Karelia UAS has been involved in the national yleSHarviointi 2018–2020 project. The project produced the competence requirements and contents for nursing education in October 2019 (Laukkanen 2020), and developed a national examination based on the core competence of nursing (180 credits). This exam was introduced in all universities of applied sciences providing nursing education in spring 2021, and the students of the Innovative Nurse student group also took the exam during spring 2021 and autumn 2021. The exam is part of the Professional Development (1 credit) course. The national exam is conducted in the Moodle online learning environment and includes exams and tests created during the yleSHarviointi project. Passing the exam will ensure that nursing students in the Finnish universities of applied sciences all have the same level of competence. This will increase the competence of Finnish nurses and the prestige of nursing education. The project has also produced intermediate tests, theory tests and demonstrations, for the whole duration of the nursing studies. (Koivisto, Mäkeläinen, Yli-Villamo & Karttunen 2020.)

Making Nurses' Skills Visible

The nurses of the future will need to have a broad range of skills in different areas of nursing. In the Innovative Nurse project, we wanted to develop not only the Innovative Nurse programme, but also all nursing and public health nursing education at Karelia UAS. The aim of the development work is also to pool resources and produce tools for demonstrating broad competences. We wanted to prepare all students for the upcoming national examination by also strengthening their clinical nursing skills. The new curriculum of Karelia UAS nursing education, which started in autumn 2019, focuses on increasing the visibility of clinical competence as part of the progression of studies. We wanted to build clear semesterly competency checkpoints and provide students with clear tools to monitor their own learning and competency development. In the project, we set up a team responsi-

ble for proof of competence, who developed a Clinical Competency Passport, a Practical Training Passport and a set of demonstrations of competences for different semesters, to be used throughout the nursing education. This development work started with the development of the Clinical Competency Passport. The challenge was to bring together all the key clinical skills and competences required during nursing education, given the wide range of topics covered.

"We wanted to build clear semesterly competency checkpoints and provide students with clear tools to monitor their own learning and competency development."

The clinical passport describes competences at three levels – observed, practiced and competent. This three-level approach has already been used in the past, for example in the Medication Passport. In this passport, too, the student can enter the "observed" and "practiced" sections independently, but for the "competent" mark, the student's performance is also approved by the nurse supervising the placement. The contents of the passport have taken into account not only the teachers' feedback, but also that of the students' representatives. The passport was piloted in autumn 2020 for graduating nursing students and in autumn 2020 for students in the early stages of their studies. The introduction of the passport also requires teachers to think about the progression of the curriculum more carefully; where and when each clinical teaching takes place. The work on the clinical passport has also generated a lot of shared discussion and the joy of working together. We have been at the heart of the matter.

Alongside the Clinical Competency Passport produced by the project, the Practical Training Passport was also produced, describing the different practical placement environments for nursing students. The aim is to ensure that the passport provides all students with the skills to work in different care environments and with different client groups, taking into account changes in social and health care and digital and technological developments. The Practical Training Passport is returned to the student's tutor teacher every semester and is also reviewed together during development discussions. If necessary, changes to the student's placement choices are made together.

Comprehensive Performance-based Exams in Nursing Education

Nursing education is divided into seven semesters and the future national examination must be taken at the end of studies when at least 180 credits have been completed. At Karelia UAS, students in the Innovative Nurse group have already had performance-based exams in line with the semester's theme. The themes of the semesters vary - some semesters reinforce clinical skills and others, for example, interaction or development skills. We had already noted that the challenge of the performance-based competency exams was their diversity or lack thereof. Through this project, we wanted to develop consistent practices for comprehensive performance-based exams in different semesters.

The development started with creating general criteria for the performance-based exam - these are the same for all of the exams, and thus create a sense of security and familiarity for the student as well. The development of the criteria was based on OSCE (Objective structured clinical examination) - a measure of competence used in health sciences, for example in nurse prescribing courses. The scale assesses the student's performance in situations that simulate working life in areas such as interpersonal skills, application of clinical knowledge and skills, assessment of the need for treatment, decision making and problem-solving (Finnish Network of Higher Education Institutions for Nurse Prescribing Education 2010). In addition, for each individual piece of evidence related to a nursing theme, more specific criteria are added according to its thematic area, so that assessment of competence in very different themes can be done in a meaningful way. These more specific criteria always use the same structure of the assessment criteria.

The development of the comprehensive performance-based exams started at the beginning of the nursing studies and will progress along the themes of the new curriculum, launched in autumn 2019. For students in the Innovative Nurse group, the performance-based exams have already been carried out throughout the degree and for those who started their studies at Karelia UAS in autumn 2019, in accordance with the curriculum. The performance-based exams have been from the areas of basic nursing, long-term care, mental health and substance abuse nursing, nursing of the elderly and family nursing.

The development of the performance-based exams therefore progressed piece by piece, learning from each other. A key feature of the demonstrations was the increase in competence requirements as the studies progressed. Students need both theoretical knowledge and clinical skills in each performance-based exam. At the same time, competence is also strengthened for the future national examination, but principally for the competence requirements of future nursing work. This competence is needed in both sparsely populated and densely populated areas of North Karelia.

It is particularly gratifying to see how the development work that has already been carried out is currently serving education and students. Skills are at the heart of the work, currently and in the future. Competence is our response to the challenges of nurses in sparsely populated areas of North Karelia: digitalisation, new service chains, independent decision-making and performance at work.

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4 Development of Nursing Work in Kainuu region

Introduction: Multidisciplinary Simulation Exercise as a Thesis

Jaana Kemppainen, Sirpa Parviainen, Sanna Heinonen

A simulation event between students from Kajaani University of Applied Sciences and representatives from Kainuu Social Welfare and Health Care Joint Authority was carried out at Suomussalmi hospital in September 2021. This event was implemented as part of the project Innovative Nurse, and it was part of a thesis module *Patient Safety in Nursing - Operating Model for Acute Patient Transfers* consisting of seven theses. Twelve nursing students participated in the compilation of the thesis. Three simulation scenarios were prepared for the theses and seven articles were written of them for this Innovative Nurse publication.

Planning of the simulation exercise started in spring 2020 together with representatives of working life. The need to develop competence in working life as well as the objectives, contents and requirements of advanced acute nursing studies and theses were considered in the planning phase. Simulation-based learning and experiential learning processes played a key role in planning. A nursing student group within the Innovative Nurse project planned, implemented, and evaluated a multidisciplinary simulation exercise as their thesis. The participants in the simulation included health care professionals: paramedics, practical nurses, and registered nurses.

The development of competence took the form of an interactive event. In experiential learning, immediate personal experience is the initiator of development process, learning, and competence development. The learning experience results in reflection, which then makes it possible to combine the acquired competence with the existing knowledge and skills. (Kolb 1984.) In simulation exercises, authentic work situations are being simulated, and the reality is imitated as a multiform phenomenon, with focus on learners' experiences and joint learning (Isacsson 2019). Simulation exercises always provoke a wide range of emotional reactions in both participants and simulation supervisors, including shame, fear or excitement, or joy of success and the feeling of exceling oneself. (Blomberg 2015.) Simulation provides a safe learning environment for practicing emergencies and other real-life situations (Rantanen 2019, 227).

The simulation scenarios for the students within the Innovative Nurse project were planned based on clinical nursing situations. The focus in the planning of the scenarios was on real situations at work. The topic and situations selected for the scenarios were based on prior experiences on the need for multidisciplinary teamwork.

The simulation exercise scenarios consisted of the following three parts:

1st scenario: Deterioration in the general condition of a nursing home patient and the first encounter with the patient

2st scenario: Transfer of a heart failure patient to an inpatient ward

3rd scenario: Identification of acute respiratory failure in an inpatient ward and decision on further treatment

All scenarios included both a clinical and a non-clinical part. The thesis on Crisis Resource Management (CRM) communication brings all these scenarios together, viewed from the perspective of the debriefing phase. One of the most important benefits of the simulation exercise is to learn non-clinical skills, such as interaction, teamwork, and decision-making skills (Rantanen 2019, 228-229). Non-clinical skills are highlighted in the CRM instructions, the main idea of which is to utilise the resources of multidisciplinary teams and to enable early intervention in errors in nursing. Working in a multidisciplinary team that follows the CRM principles can, at its best, improve patient safety.

"We wish that these articles will inspire and encourage students, teachers, and representatives of working life to develop multidisciplinary competence with the help of simulation."

This section in this publication contains articles written by students based on their theses and the process of planning, implementing, and evaluating the scenarios. The articles are in the order of the progress of the simulation. The first two articles focus on the first encounter of the patient/client and the significance of initial assessment and interaction. The following two articles take a look at the second scenario: identification of heart failure and the importance of successful patient transfer. The article on the third scenario deals with acute respiratory failure. The last two articles reflect on the importance of CRM communication and simulation as a learning experience.

The theses resulted in the creation of new "products", such as a checklist for change situations in nursing units and a tool for identifying respiratory failure, which are also presented in the articles.

We wish that these articles will inspire and encourage students, teachers, and representatives of working life to develop multidisciplinary competence with the help of simulation. The authors of this article worked as the instructors of the students' theses.

We wish to give a warm thanks to the students who were courageous to take up the challenge that requires knowledge, skill, and attitude. Peer support, support from the family, and believing in yourself made it possible to complete the simulation exercise and to compile this collection of articles.

> *Simulation is not a goal, but a tool that is only useful when it helps you to learn and, finally, improves patient care. Blomgren 2015*

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Operating Model for Acute Situations in Older People's Care Units

Minna Lindberg, Anu Väyrynen, Jaana Kemppainen, Sirpa Parviainen

This article is based on the thesis that studies acute situations in a round-the-clock service housing unit for older people. The aim of the thesis was to plan a coherent operating model to promote patient safety, improve the prognosis of the patient's functional capacity, and to prevent the occurrence of illnesses.

Acute Situations with Older People and Use of the ABCDE Approach

According to Act 2012/980, municipalities are required to provide high-quality, timely and adequate social and health care services for older people. Units providing institutional care must have an adequate number of employees with appropriate education and job descriptions in relation the number and service needs of the residents in the unit. (Act on Supporting the Functional Capacity of the Older Population and on Social and Health Services for Older Persons 2012/980, § 19-20.)

The worsening of older people's condition may be a result of an accident, an acute situation caused by a long-term illness, or fragility caused by ageing. The most common acute situations include different types of infections and sudden deterioration of the general condition. When a situation is defined as acute, it requires a rapid response. (Leppänen 2015, 10-11.) The prognosis is significantly influenced by the initial assessment of the situation.

The initial assessment should be based on evidence related to the assessment of the need for care in order to become a well-established procedure in the unit. A well-established procedure is of help when ensuring patient safety. The ABCDE approach is an assessment tool for the clinical treatment of basic vital functions in all patient groups, from non-urgent treatment situations to life-threatening emergencies. (Kantola, Norrgård & Kupari 2019, 1.) The abbreviation stands for Airway, Breathing, Circulation, Disability, and Exposure. When using the ABCDE approach, an assessment of the patient's condition can solely be made on the basis of sensory observations, but it is possible to specify the assessment by measuring, if necessary. The ABCDE tool guides you to examine the vital functions and perform treatment procedures in the order of priority. Rapid and reliable evaluation of basic vital functions, as well as fast emergency care measures that support them, are of particular importance for the patient's survival. (Kantola et al. 2019.)

Operating Model for and Simulation of Acute Situations

The aim of the thesis was to instruct the employees in nursing homes to integrate the ABCDE approach into their everyday work with the help of an operating model developed for the thesis. The operating model is based on the already existing ABCDE approach, as the aim of the Finnish Nurses Association and the Finnish Medical Association is that the ABCDE approach should be a standardised way to examine and assess the state of the patient's basic vital functions, regardless of the place of treatment. (Kantola, Norrgård & Kupari 2019).

Airway	Are the airways open?	No Yes	Open the airways
Breathing	Is the patient breathing? Breathing Respiratory rate SP02	No Normal / is able to talk ___min. (10-20) ___% (over 95%)	**112, resuscitate** Laboured breathing / is unable to talk Less than 8 or more than 25 Less than 91%
Circulation	Heart rate Blood pressure	___min. (50-90) ___% (**130**/85)	Weak / absent Less than 90 or more than 220
Disability	Level of consciousness / GCS Blood sugar Movement and sensation Pupils	Is responsive / is able to talk ___mmol/l symmetrical symmetrical	Unresponsive Less than 4 or more than 11 One-sided weakness Unresponsive to light
Explosion	Bleeding Injuries Pain Body temperature	___/10 ___(35,8-37,8)	Unresponsive Less than 35.0 or more than 39.1.

Picture 1. ABCDE approach

The aim of the operational model described in Figure 1 was to gather together as many easily assessed ABCDE protocol elements as possible. In addition, it includes reference values for different vital measurements to facilitate the assessment of the urgency of treatment. In assessment situations outside hospital environments, it is a priority to secure the patient's breathing and blood circulation, since no measurements are relevant if the patient's condition collapses. Respiratory rate is the most important indicator of the patient's breathing. It is sensitive to the deterioration of the patient's condition and may be the only externally detectable abnormality in the patient's basic functions at first (Alanen 2016).

The purpose of the simulation event organised in cooperation with Kainuu Social Welfare and Health Care Joint Authority was to test the operating model developed for the thesis in practice. The operating model was sent to the participants of the simulation in advance and the model was available to be used during the scenario.

In the simulation situation, the general condition of a nursing home patient deteriorated. The participants performed different types of measurements to assess the patient's condition, although not in the order presented in the operating model, and they did not use the model to register or compare the measurement values. However, the ABCDE approach is a good tool for monitoring patients' basic vital functions in a logical order and monitoring the assessment of treatment. During the debriefing phase, the importance of established procedures in the initial assessment of the situation and in the need for treatment were highlighted.

Summary

Use of the ABCDE assessment tool in decision-making in nursing requires a sufficient theoretical basis as a support. Sensory observations and measured results should be compared with situational information, client understanding, and with the theory of nursing science and medicine before making any decisions. Repeated use of a systematic approach in a nursing situation results in the use of a standardised model, which will increase and ensure patient safety.

An optimal use of the operating model would be achieved if, for example, an RDI-type event was arranged for employees before the model is introduced. The operating model is a good tool for non-emergency assessment of the need for care; in emergency situations it is of paramount importance to assess the state of the patient's condition and start treatment as fast as possible.

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Respectful First Encounter of a Patient

Suvi-Tuulia Virrankari, Erja Kyllönen, Sirpa Parviainen

This article describes the first encounter of a patient and the importance of respectful first encounter from the patient's point of view. A respectful first encounter includes holistic presence.

A respectful first contact with a patient is a prerequisite for the overall success of the entire treatment process. The encounter of a patient is often taken for granted, although e.g. hurry may cause the patient to get a feeling of not being seen or heard. From professionals' point of view, the encounter of a patient is always goal-oriented, and thus, the encounter needs to be planned and reflected in advance. Patient encounters can be practiced and rehearsed. (Tuominen, Kangasniemi 2019; Raatikainen 2015.)

Previous studies and publications on human encounters were examined for this article. The first moment of an encounter is considered the most important part of an encounter, since the first few seconds are crucial for the success of the treatment; how does the client/patient experience the situation and what does the client/patient remember of it afterwards?

First encounter is a situation where the patient and a member of nursing staff meet for the first time. It is a very short moment as it only takes a few seconds. The first encounter occurs when you meet a person for the first time, and it has an effect on the succeeding encounters and the future relationship between them. (Raatikainen 2015.) In the first moment, the patient feels, senses, sees, and experiences the situation, so the nurse should act accordingly when performing the required activities. It is difficult to turn the first impression into a positive one later. (Nieminen 2014, 25.)

Picture 1 shows a poster that is easy to be read and it reminds nursing staff of the importance of a respectful first encounter.

Picture 1. Poster on the importance of a respectful first encounter

Special Features of and Trust in the First Encounter

A respectful encounter makes patients feel that they have been encountered as individuals and that they have been heard. The way patients experience the first encounter depends on a number of factors, including eye contact and facial expressions (smiling, friendly, serious, tired, frustrated, angry).

When encountering patients, the employee needs to figure out whether to direct the words directly to the patient or to the person accompanying them, and whether there is touching involved (e.g. a tap on the shoulder, or a handshake before COVID-19). The tone of voice, the rhythm of speech, and the pauses of speech are of great importance. All this applies both to face-to-face encounters and remote contacts. (Raatikainen 2015, 69.)

Encounters take place in different types of environments: face-to-face contacts, telephone conversations, visual contact, patient's home, street, hospital, ward, and emergency rooms (Stenroos 2009, 18-19). According to Hahtela (2012, 66-67), a professional member of nursing staff handles every encounter with the same intensity regardless of the environment. The encounter of a patient begins with the nurse's attitude towards the contact. The ethical attitude of nurses towards the patient can be seen in their attitude towards the patient as a human being and towards the patient's ailment, and thus as a respect for the patient. (Haho, 2013, 5.)

"It is important to be aware of the main features and significance of a respectful first encounter. First encounters can and should be planned and practiced in advance."

During the COVID-19 pandemic, face masks have been worn in nursing environments. It is important to consider whether facial expressions can be seen behind the mask. Expressions can be seen through eyes, shape of the face, and the body. Therefore, gestures and expressions can make a difference even if the face is covered with a mouth-nasal mask. The mask can also make it more difficult to speak, which is why words should be pronounced clearly and with emphasis when wearing a mask, however without making the speech unnatural. A warm, welcoming attitude and the feeling of care begins with speech and gestures. This is influenced, for example, by the tone of voice and the choice of words. (Järvinen 2020, 55.)

Building trust always depends on the people involved in the encounter. Based on previous experiences, it is more difficult for some people to build trust in other people or things. The patient should be met at an emotional level and there should be no feeling of hurry in the situation. (Raatikainen 2015, 12.) Martin (2019) has addressed the importance of meeting all patients respectfully in emergency care, including intoxicated patients, because a good encounter is important for the success of the treatment.

It would be good to visualise the first encounter. A poster on the wall would remind nursing staff of a respectful first encounter. The words in the poster need to be easily read in contrast to the background colour, and the colours in the poster should be eye-catching (Figure 1). On the other hand, just a picture on a poster might be a more effective way of conveying the message than the text. The place of the poster also matters; how does it reach the target audience? (Ladd 2010, 2-3.)

Summary

The first encounter of a patient is something to be reflected on beforehand. It is important to be aware of the main features and significance of a respectful first encounter. First encounters can and should be planned and practiced in advance. The aim is to make the first encounter a goal-oriented activity that members of nursing staff are aware of.

A nurse's look, touch, and tone of voice affect to the feeling of trust in an acute situation. Nurses can use their eyes and touch to build a confidential feeling with the patient (Kinnunen, Parviainen, Haho & Jolkkonen 2019, 54). The patient may experience anxiety and fear, or even fear of death, in situations involving life-threatening elements. A touch can make an unpleasant situation less unpleasant (Jokela & Mursu 2020, 18). Customer-friendliness consists of a respectful attitude towards the client, the patient. Communication competence includes touch, the communication itself, and multiprofessional cooperation. (Competence requirements and contents for the degree for nurses responsible for general care, 180 credits, 2021.) When encountering a patient, the nurse needs to stop for a while, listen, watch, and feel.

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Identification of Heart Failure Exacerbation

Ville Keränen, Tuomo Heikkinen, Sirpa Parviainen

A s the population ages, an increasing number of Finnish people suffer from heart failure. This article describes the symptoms leading to the identification of heart failure exacerbation, i.e. worsening of heart failure.

Importance of Identifying the Symptoms

Approximately 1-2% of the population suffer from heart failure. This percentage increases with age; about 10% of people at the age of 70 or over suffer from heart failure. (Heart failure 2017.) The ageing of the population and increased life expectancy also increase the number of people with heart failure. The number of heart failure patients aged 65 and over is estimated to be as much as 72% higher in 2030 than it was in 2015. Consequently, the costs caused by the treatment of heart failure may increase up to 127%. (Nieminen & Strandberg 2015, 2211.) Heart failure affects the quality of life and can also cause depression and fear. Early intervention in the symptoms and in the treatment improves the patient's mental and physical well-being and quality of life. (Maijala et al. 2018.) Heart failure

is usually caused by arterial hypertension, coronary artery disease, or valvular heart disease (Hekkala, 2021). With appropriate treatment of these diseases, it is possible to prevent the development of heart failure. Recognising the symptoms of heart failure and identifying the worsening of the disease are current issues today and in the future.

Symptoms of Heart Failure Exacerbation

Heart failure is a condition in which the heart is not normally able to pump blood into the body. Heart failure can develop on one side or on both sides of the heart. The occurrence of symptoms depends on which side of the heart the failure occurs. The main symptoms are dyspnoea (difficulty in breathing) and asthenia (weakness) during physical exercise. Dyspnoea is caused by congestion in the lungs, as the heart is unable to pump a sufficient amount of blood from the lungs. As a result, fluid accumulates in the body, and the patient gains weight and gets swellings (edema). In severe heart failure, dyspnoea usually gets worse when lying down, and the breathing is easier in the sitting position. The patient often suffers from dry cough when lying down. In pulmonary congestion, dyspnoea is difficult even at rest and it worsens quickly. Pulmonary congestion can be caused by sudden failure in the pumping capacity of the left ventricle of the heart. This condition is life-threatening and requires intravenous medication and respiratory support. (Heart failure 2017.)

A typical symptom of the right side of the heart is the accumulation of fluid, especially in ankles and legs, and eventually also in upper abdomen. The fluid accumulates in the tissues, often accompanied by renal disorders. Renal disorders complicate the possibilities for medication. Advanced heart failure may cause loss of appetite due to intestinal circulatory disorders. (Heart failure 2017.)

"Observation of vital functions and, for example, addressing the decrease in oxygen saturation, can prevent exhaustion and the resulting death."

To assess the state of heart failure and to monitor the worsening of the symptoms, the following examinations are performed: ECG (electrocardiography), thorax (chest radiograph), blood count, electrolyte examination, renal test, and NP (natriuretic peptides) test. An ultrasound should also be taken if there has been a change in the patient's clinical condition. Self-care also plays an important role in identifying heart failure exacerbation and in seeking treatment. Hospitalisation can be avoided and recovery from the exacerbation phase can be accelerated by identifying the symptoms. (Heart failure 2017.)

In acute exacerbation, vital functions are determined as emergency care. The aim is to correct the deviations in vital functions, and thereby affect the patient's prognosis and improving the patient's mental and physical health. As the amount of breathing increases, oxidation may get worse and the oxygen saturation may drop. As the oxygen saturation drops, the patient begins to become exhausted which may result in death. The patient may be given additional oxygen with a mask or with a CPAP mask, if the oxygen saturation is <90%. A vasodilating drug or a diuretic may be given as a medication. The aim is to achieve the blood pressure level of <140/80 and a decrease in cardiac load. (Heart failure 2017.)

The NEWS scoring system has been found to be a reliable measure of disorders in vital functions. The scoring system provides objective information on the patient's basic vital functions. Structured scoring makes it possible to continuously monitor the patient's vital functions even if the treatment unit or the nursing staff changes. It also clarifies the communication between health care professionals. (Karjalainen, Norrgård, Peltomaa, Pirneskoski, Rantala & Tirkkonen 2018, 787-788.)

Summary

Observation of vital functions and, for example, addressing the decrease in oxygen saturation, can prevent exhaustion and the resulting death. Early intervention in heart failure and in the diseases causing heart failure may result in avoiding hospitalisation. According to studies, hospitalisation in the treatment of heart failure increases the risk of death by 20% in the following year (Koskinen & Ukkonen 2019). It is possible to affect this prognosis with good treatment. In addition to reduced symptoms and hospitalisation, life expectancy is also improved. Thus, fast identification affects the well-being of the patient and the costs for the society.

Clinical nursing includes the ability to respond to the needs of the client (patient) by planning, implementing and evaluating individual care in collaboration with the patient, the patient's family, and social and health care professionals (Competence requirements and contents for the degree for nurses responsible for general care, 180 crs). Multidisciplinary theoretical knowledge supports the use of the NEWS scoring system. Heart failure exacerbation cannot be identified if one is not aware of the clinical picture of the disease or if the symptoms cannot be attached to heart failure.

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A Checklist for When a Patient Changes Care Units

Eija Tauriainen, Minna Rautio, Sirpa Parviainen

This article is based on a thesis, the purpose of which was to describe a patient safety promoting reception situation in a ward and to develop a checklist for the nurse receiving the patient. According to the National Institute for Health and Welfare (2011, 9), interface problems in the flow of information increase the risk of treatment errors. Our thesis sought answers to the questions of how to ensure patient safety during a change of care unit and what the checklist should contain.

A Checklist for Patient Safety

The purpose and aim of the checklist is to standardise and simplify the practices of a nursing unit in order to improve patient safety, so that essential information about the patient is not just left to the memory of the nurse. Systematic and correct use of the checklist will contribute to a safe working culture. The checklist should be designed on a unit-by-unit basis and its use should be systematic and consistent. In order to make the use of checklists a natural part of the work community's activities, the supervisor should provide the necessary training and practical training for the nurses in the work unit. The WHO encourages that the checklist is adapted to the work unit and not made too complex. (Helavuo, Kinnunen, Peltomaa, Pennanen 2012, 208-209, 211.)

"It has been shown that any transition point in a patient's care can allow for a nursing deviation to occur. Therefore, special attention must be paid to patient safety in patient transfer situations. "

A Checklist for Receiving a Patient

The content of our own checklist (Figure 1.) has been modelled on other checklists, but in such a way that the content of our own checklist corresponds as closely as possible to the work unit of our client. The main elements of our checklist are patient safety and NEWS scoring.

A CHECKLIST UPON THE PATIENT'S ARRIVAL
FOR THE NURSE IN CHARGE

1. Take a report of the incoming patient > ISBAR

I = identify
> Nurse's own introduction
Name, job status, unit, location
> patient's details
Name, age, social security number, gender
Patient identification > printing an identification
bracelet for the patient.

S= situation
> Reason for coming to the ward
Care instructions, possible limitations

B= background
> Background of the patient and the situation
Reason for admission
Patient's underlying medical conditions, medications
Risk information (allergies, infectious diseases/need for isolation, DNR)

A = assessment
> Assessment of the patient's current status
Essentials of the patient's condition (ability to function/
mobility, aids, treatment/medication)

R = recommendation for action
> Summary of the key points in the report
Repeat aloud what has been discussed

2. Vital signs upon admission > count the NEWS score

Blood pressure (RR)
Pulse (p)
Respiratory rate
Oxygen saturation
Temperature
Level of consciousness (GCS)

3. Clerk the patient in to the ward

Lifecare, Miratel
Check the patient's record for contact details and inform relatives/
care home of patient's arrival on the ward.
Medication > check that the medicine list is up to date,
distribute medicines

Figure 1. A Checklist for Receiving a Patient

Promoting patient safety is part of a nurse's professional ethics (Sairaanhoitajat 1996). In nursing, good communication is the most important factor in patient safety. Smooth teamwork and spoken communication increase the quality and reliability of care. (Helavuo et al. 2012, 189.) It is also easier for patients to engage in their care when there is trust between patient and caregiver (Hoidon jatkuvuus 2018). Pharmaceutical safety and medication safety are part of safe pharmacotherapy. The National Institute for Health and Welfare (THL) has produced a patient safety guide, published online, which aims to provide information to patients before, during and after treatment. (Terveyden ja hyvinvoinnin laitos 2019.) For patients and staff, the importance of safety in the physical care environment is also important to consider. Hazards in care situations can be caused by, among other things, disorder, inadequate equipment and distractions such as noise and commotion. (Helovuo et al. 2012, 67.) Consistent record keeping supports client and patient safety (National Institute for Health and Welfare 2020). In Finnish nursing, structured recording is based on the Finnish Care Classification (FinCC). The National Institute for Health and Welfare has compiled a user guide for the use of the FinCC classification, which has been updated in 2020 (Julkari 2020.)

The checklist includes reporting on the patient according to the ISBAR model. The original purpose of the ISBAR tool was to improve communication between nurses and doctors (Finnanest 2015, 340). A structured, organised and consistent assessment tool facilitates the assessment of the patient's clinical status, as it can be challenging to evaluate the patient's condition (Helovuo et al. 2012, 214-215). The NEWS (National Early Warning Score) has been found to be the most accurate, sensitive and simplest descriptor of changes in vital functions. NEWS measures assess changes in a patient's systolic blood pressure, heart rate, respiratory rate, body temperature, supplemental oxygen consumption, oxygen saturation and level of consciousness. The Nurses' Association recommends the routine introduction of NEWS scoring in healthcare units (Karjalainen, Norrgård, Peltomaa, Pirneskoski, Rantala & Tirkkonen 2018, 786-788.)

Testing the Checklist

The checklist was pre-tested in the ward before the simulation. A person (nurse) with practical experience of working in a ward, and in particular of situations where a nurse has been present at the ward to receive a patient, was selected to pre-test the product. Based on the pre-testing, we made the necessary changes to our actual product. The actual product was evaluated and tested in a simulation. A feedback questionnaire was prepared for the participants and peers to assess the practicality of the product. The finished product will remain available to the staff of the ward and further development of the product will be carried out by them, according to the FinYHKÄ model.

We asked the participants and the audience for their opinion on the usefulness of the checklist and whether they would use it when a patient arrives on the ward. The use of the checklist in general was perceived as a good thing. However, more experienced nurses in the ward felt that they might not use the checklist, as it is perceived as a delaying factor when a patient arrives on the ward, and that the things that are necessary for the patient's arrival would already be known and mastered by the most experienced nurses. However, new or substitute nurses felt that the checklist was a necessary tool to support their own memory.

Summary

It has been shown that any transition point in a patient's care can allow for a nursing deviation to occur. Therefore, special attention must be paid to patient safety in patient

transfer situations. It is important to increase uniformity in the language of reporting. According to the WHO, this is ISBAR (Ervasti, Hackzel, Päätalo & Saarnio 2020.) Smooth transfer situations require planning and good information transfer between units. Information transfer can be improved through standardised reporting methods. (Jauhiainen 2019, 14.) Goal-oriented and situational communication is professional communication (Competency requirements and contents of the General Nurse (180 credits)).

To summarise, the checklist is a good tool that can support the nurses' work.

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Reference Card Tool for the Identification of Acute Respiratory Failure

Juha Marjala & Sirpa Parviainen

This article describes a reference card tool for acute respiratory failure that I developed in my thesis to speed up the identification of acute respiratory failure. Rapid identification and referral to the right type of treatment are important for a patient's prognosis.

Acute respiratory failure is a highly topical issue. Especially its most severe form, acute respiratory distress syndrome (ARDS), has become more common as a serious complication of Covid-19 coronavirus disease. It is important to recognise acute respiratory distress syndrome and to refer the patient for further treatment in a multidisciplinary collaboration with the physician. This is a serious matter. Acute respiratory distress syndrome is a very serious condition, with a high hospital mortality rate of 30-50%, even today. (Uusaro & Okkonen 2018, 183-184.) Acute respiratory distress syndrome can cause distress in both the patient and their loved ones. It is essential to recognise the symptoms and distinguish them from other situations that cause similar symptoms. Acute respiratory failure can also be associated with long-term conditions such as heart failure, as well as adverse combined influence of medicines. Treatment of acute respiratory failure is described in the Current Care Guidelines (Hengitysvajaus 2014).

Reference Card and Simulation

To support the identification of acute respiratory failure, the thesis developed a reference card tool for nurses for acute respiratory failure (Figure 1). From the care card, the nurse can immediately see whether the criteria for acute respiratory failure are met. Early and rapid initiation of treatment improves the prognosis for the patient (Uusaro & Okkonen 2018, 183-184).

ACUTE RESPIRATORY FAILURE – A NURSE'S REFERENCE CARD

	ACUTE RESPIRATORY DISTRESS	NORMAL
Respiratory rate	>25	12–20
Saturation	<90%	at least 96%
Blood pH	<7.35	7.35 –7.45

Criteria for acute respiratory failure.
Symptoms: dyspnoea, restlessness, confusion, impaired consciousness

Figure 1. Nurse's reference card tool for identifying respiratory failure.
Source: Current Care Guidelines, treatment for acute respiratory failure

In a simulation day organised by the Innovative Nurse student group of Suomussalmi at Kajaani University of Applied Sciences and Kainuu Social Welfare and Health Care Joint Authority on 2 September 2021, one of the scenarios involved an 85-year-old Maija suffering from acute respiratory failure. The reference card tool was used to help identify the situation and expedite the initiation of care. After the simulation, I collected brief evaluation feedback on the reference card tool from the nurse and practical nurse who acted together as caregivers in the scenario. Feedback on the reference card tool was very positive.

Feedback on the care card tool:
1. The information on the card was found useful.
2. The card was helpful in identifying acute respiratory distress.
3. The tool is recommended as a tool for caregivers.

Reflection

The situation of acute respiratory failure requires multidisciplinary skills of the care team, from symptom recognition to prioritisation of care. Rapid, evidence-based intervention improves patient prognosis. (Uusaro & Okkonen 2018, 187-189.) The "Acute respiratory failure - nurse's reference card" tool contains criteria for acute respiratory failure with reference values. This way, when checking the symptoms, it is possible to focus on acute respiratory failure, which helps in decision-making.

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Evaluating the Success of Communication Using the CRM Method

Anne Kemppainen & Jaana Kemppainen

Successful information flow and communication are an important part of patient safety. The more different channels of communication are involved in nursing, the higher is the risk of communication breakdowns and the risk of missing out on essential information related to care. This article evaluates the success of communication in a simulation using the CRM operational model.

CRM as Part of Patient Safety

CRM is short for either Crisis Resource Management or Crew Resource Management in the context of healthcare. CRM has its origins in a NASA seminar (1979) on aviation accidents resulting from human error such as communication, decision making or poor management. Safety is the result of cooperation between different professional groups following to predefined guidelines. In healthcare, Crisis Resource Management training, based on CRM practices, has been used to develop cooperation, particularly between anaesthetists. The challenge in healthcare is the hierarchical and highly specialised culture. In a well-functioning multidisciplinary team, hierarchy is flattened and team members collaborate and communicate clearly and unambiguously (Helovuo, Kinnunen, Peltomaa & Pennanen 2011, 182–185; Gross, Rusin, Kiesewetter, Zottmann, Fischer & Prückner 2019; Truta 2018.)

CRM requires the team to have a common understanding of the situation, the nature and cause of the problem, the significance of the findings and what is likely to happen in the near future. The team must have a common goal and knowledge of how to achieve it, a clear division of labour, a timetable and a justification of why this is being done. (Nyström 2017, 194; Gross et al. 2019; Wheeler 2019.)

CRM communication effectively uses all the available information and labour force obtained to complete tasks and ensure the success of critical actions. Communication includes planning and anticipating activities, situational awareness, decision making, task allocation, monitoring and assurance. The aim is to avoid human error, detect problems in time and minimise the adverse consequences of errors (Helovuo et al. 2011, 183–185).

Communication Evaluation Form and Its Functionality in a Simulation

In my thesis, I have created an evaluation form (Figure 1) to assess the success of communication. The evaluation form is based on the 15 core elements of CRM and their importance for successful communication. As the 15 core elements are quite a lot for evaluation as such, five core elements, which were the most suitable for the simulation exercise, were selected at the presentation of the thesis plan. The selection was based on theoretical knowledge about CRM communication and communication, the importance of communication, its challenges, and student colleagues' views on the issues that are important for

successful communication. The key points of the evaluation form are: 1. Anticipate and plan, 2. Communicate effectively, 3. Use all available information, 4. Double check, 5. Work with others as a team. (Nyström 2017, 198.)

The area to be assessed	5	4	3	2	1
Anticipate and plan					
Comments					
Communicate effictively					
Comments					
Use all available information					
Comments					
Double check					
Comments					
Work with others as a team					
Comments					

Figure 1. Communication Evaluation Form

The communication assessment form was tested in a simulation where a multidisciplinary team consisted of paramedics, a nurse and a practical nurse. Communication in the simulation situation was clear, relevant and effective. Essential information was relayed smoothly from one person to another and the teamwork reflected the professional skills of all nurses. Double-checking, i.e. the listener repeats aloud what they hear, is an effective way of ensuring the accuracy of verbal information and, especially in primary care settings, the nurses on the ward also used double-checking when verifying and recording the results of measurements during patient care.

At the end of the simulation, communication in a multidisciplinary team was discussed together, thus strengthening workplace competence. The most important point that emerged was clarity of communication and double-checking: it is important to speak in an understandable and clear way, using terms whose meanings are clear to everyone in the team. In a simulation situation, communication can be assessed using a form. However, the form itself needs to be refined for the simulation situation. In a fast-paced event, there may not be time to manually enter comments in the comment fields. The effectiveness of

the form also depends on the professional group whose communication success is being assessed. For nurses, who are less familiar with CRM communication, the form is more suitable than for paramedics, who are thoroughly familiar with CRM communication. The form for emergency care could have more items, as all 15 items are constantly involved in the evaluation of communication.

"In an urgent situation, safe and effective collaboration requires that all team members have clear responsibilities, roles and tasks."

Summary

Communication, uniform and regular procedures play an important role in patient safety. (Kinnunen & Helovuo 2019). When a patient's condition suddenly deteriorates, there may be gaps in communication between team members, which can result in overlapping activities and a focus on irrelevant issues. In an urgent situation, safe and effective collaboration requires that all team members have clear responsibilities, roles and tasks. Communication should be systematic, including essential information about the patient's condition and status, but without excessive detail. (Koskela & Vuorio 2019, 40-43.) Simulation training provides opportunities to learn and practice systematic CRM and communication.

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Simulation Method in Nursing Studies in Learning How to Assess the Need for Care

Timo Juntunen, Helena Moilanen, Jaana Kemppainen

A nurse needs to know how to assess the patient's condition in any situation. In order to ensure patient-safe treatment in emergency situations, the ABCDE triage assessment tool may be used to assess the patient's need for care. The use of the tool was practiced in a joint simulation exercise arranged by Innovative Nurse students in Suomussalmi. This article describes the implementation of the simulation and the feedback received of it.

Simulation Exercise in Learning

Urgent treatment means treatment that cannot be delayed without deterioration of the disease or injury. Urgent treatment should be preceded by an assessment of the need for care. Both urgent treatment and the assessment of the need for care are based on the Health Care Act. (Health Care Act 2010/1326). The Health Care Act is the basis for the assessment of the patient's care. The assessment and determination of the patient's condition is based on a Triage classification, i.e. an assessment of the need for care and the urgency of treatment. It is used to determine the time limit the treatment should be started within. The ABCDE triage model divides patients into five classes; class A means immediate threat and class E means a non-urgent condition. (Vehmanen 2010, 2914-2916.) There are different models for assessing the need for Triage treatment in different localities.

Simulation method is a learning technique that simulates real life experiences for students and, thus, strengthens the experiences. Simulations simulate treatment situations, and the purpose of simulations is to provide learning through an experience that includes a variety of activities. (Saari 2014, 3-4.) The purpose of simulations is to provide a learning experience and to reinforce communication and teamwork skills in a treatment situation. A simulation exercise includes three phases. The first phase is a preparatory phase, including division of roles, and defining the topic of the scenario, objectives, and rules. The second phase, implementation, is based on a pre-planned script, i.e. a scenario. The simulation ends with debriefing between everyone participating in the simulation. The aim of debriefing is to create a safe atmosphere for reflecting on learning and that each participant has a chance to reflect on their own skills, learning, and interaction skills. (Kellomäki 2013, 13-15.)

Simulation in the Assessment of Treatment

The simulation exercise was carried out between the Innovative Nurse student group and representatives of working life in Suomussalmi community hospital on 2nd September 2021. The topic was the assessment of treatment in a situation where the patient is having difficulties in breathing and the situation quickly turns into acute respiratory failure. The simulation exercise provided good tips for future work, as the students had to think

about different solutions and to make decisions on the patient's treatment, such as quickly assessing the urgency of the situation by using the ABCDE classification. The simulation provided tips for assessing the urgency of the treatment, starting the treatment and implementing the treatment process, and for communication between the participants. Patient safety was also taken into consideration throughout the entire simulation. It was also discovered during the simulation exercise that observation and the related initial procedures play a crucial role in the treatment of a patient whose condition has suddenly deteriorated. During the simulation exercise, the patient received good treatment quickly and the participants were able to use the triage model to assess the need for care. Thus, it was possible to stabilise the patient's condition and to determine the need for further care.

"he simulation exercise provided good tips for future work, as the students had to think about different solutions and to make decisions on the patient's treatment"

he participants in the simulation considered cooperation between the participants as the most important aspect in the exercise; everyone had the same goal, i.e. to stabilise the patient's condition together and to arrange appropriate further care for the patient. Due to clear and timely reporting, it was possible to maintain patient safety all the time.

"I am a new employee here, and thanks to the simulation exercise, I got acquainted with local activities and with my new colleagues here."

"The simulation exercise was as they are in real life. Things are changing fast. With this exercise, I was able to make alternative plans for the patient's safe further treatment."

"We are already planning the first similar exercise for our own unit thanks to this simulation exercise."

Summary

Simulation exercises are part of nursing studies at Kajaani University of Applied Sciences. The authors of this article have already participated in several simulations during their nursing studies. According to these experiences, simulation exercises have turned out to be an important part of studying, as they simulate real-life nursing situations. Simulation is a safe way to learn new things and to rehearse the theory learned in lessons, and it usually gives new perspectives for the participants to find something to improve and alternative ways of working.

Health care professionals need joint simulation exercises. Simulation exercises make it possible to develop one's own knowledge and skills, communication and guidance skills, and collegial cooperation. The participants learn to identify and utilise each other's competence. Simulation learning, especially for acute situations or rarely occurring challenging situations, is considered necessary. Emotional intelligence and psychological recognition are needed in nursing and, therefore, development of personal communication skills is also considered important. Simulation exercises with a communicative purpose are also needed to practice ethically difficult situations. (Salminen et al. 2018, 316–318.) Preparation of simulation exercises has required students to participate in collaborative planning and they have needed to reflect on the level of difficulty of the simulation for those taking part in the simulation exercise. To be able to learn about simulation pedagogy and plan the different phases of the exercise has required the students to become familiar with how to teach knowledge and skills. The students have learned that you can learn yourself be teaching others. Active participation and well-planned debriefing discussions at the end of simulation exercises also affect the final outcome of the learning process (Mattila 2017, 45–46).

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5   Life Cooperation as Help in Obtaining New Nurses for Sparsely Populated Areas

Development of Working Life Cooperation within the Innovative Nurse Project

Teija Malmilaakso & Jaana Kemppainen

This article describes working life cooperation within the Innovative Nurse project. The article is based on a UAS Master's thesis (Malmilaakso 2021), the purpose of which was to clarify and describe the impact and effectiveness of the Innovative Nurse project as well as to find out about the opinions of the representatives of working life regarding nursing education implemented within the project. This article presents the thesis and its main results and discusses the impact of the project on the lack of nurses in sparsely populated areas.

In the future, educational organisations need to respond flexibly to the competence needs of the social and health care service system and to reform work. It requires closer dialogue and cooperation between higher education institutions, education providers and social and health care services, both at regional and national level. (Ministry of Education and Culture 2019.)

"The Innovative Nurse project was openly greeted in all work units."

The article is based on a UAS Master's thesis conducted at Kajaani University of Applied Sciences. The thesis sought answers to the following research questions: 1) Cooperation between the project and working life: what has it been like? 2) The impact of the project on the lack of employees in sparsely populated areas: what is the opinion of the representatives of working life? 3) Cooperation between education and working life: how should it be developed?

An impact evaluation canvas was created for the thesis on the activities of the Innovative Nurse project (Tykkyläinen 2007). The aim was to find out how the objectives set for the activities have been achieved in working life cooperation and whether the nursing education and project development work has caused other effects. The evaluation also brought out an analysis of the strengths and weaknesses of working life cooperation. The purpose of the evaluation was to provide information on how the new approaches developed have contributed to the effectiveness of activities.

A qualitative research method was used in the analysis of the data in the thesis, because the aim was to find out about the experiences of and thoughts towards the project and about the cooperation between the university of applied sciences and representatives of working life. The thesis did not aim at making generalisations, but at obtaining a deeper understanding of the phenomenon. Data collection for the thesis was carried out as thematic interviews conducted for individual interviewees, as this method was esti-

mated to provide the most comprehensive information. The six interviewees were selected on a discretionary basis among mentor/mentee couples and representatives of practical training placements. The interviews took place in spring 2021.

Positive Feedback to The Innovative Nurse Project from Representatives of Working Life

The Innovative Nurse project was openly greeted in all work units. In addition to obtaining new workforce, the benefits of the project included the chance to have students' theses on topics beneficial to the work unit as well as students' suggestions on how, for example, nursing work could be carried out in a different way. Another benefit was that employees will, as student supervisors, more thoroughly assess their own working methods when discussing them with the student. Through students, employees can stay up to date on what today's nursing education is like.

All practical training placements offered by the work unit were primarily reserved for students involved in the project. The respondents stated that potential future employees stand out from the trainees. It was also discovered the number of local networks in the field of social services and health care increases as a result of practical training periods, and there is a lower threshold to take contact to a different unit if you have become familiar with other units during practical training. On the other hand, the respondents wondered whether the students have a narrower perspective if their practical training periods are merely conducted in their own locality.

Trainees are needed in work units, but some respondents hoped for a smaller number of trainees at the same time. On the other hand, some work units had started using a new kind of nursing students' guidance team during the project, with the aim of managing a higher number of trainees than usually.

As regards mentoring, it was considered positive that some mentors already had previous mentoring skills. Mentors' own meetings with each other and the support given by the project coordinator were considered useful.

As regards employers, they enabled students to participate in the project by allowing them to have shorter working hours, study leaves and days off during school days.

A number of issues to be taken into account in potential future projects emerged during the interviews. The name of the project Innovative Nurse was perceived as unclear as the work units did not know what the students should be offered or how to deviate from familiar practices. In addition, some respondents hoped that a representative from the educational institution would have visited the work unit at the beginning of the project. Teachers' expectations of mentors could have also been specified as well as the aims of these project-based studies.

The replies indicated that the project was a positive experience, and it is of help when recruiting employees. Substituting nurses had already been employed through the project at the time of the interviews. The respondents felt that the project can increase the regional availability of employees. The benefit of the project for each locality coincided with the number of students from that locality involved in the project.

The forms of cooperation between universities of applied sciences and representatives of working life included continuing training organised by universities of applied sciences, cooperation days at the premises of universities of applied sciences, and email newsletters from universities of applied sciences related to their educational supply. Practical training periods were seen as a natural part of cooperation.

In order to develop the cooperation between universities of applied sciences and representatives of working life, the educational institution should become closer with the world

of work, including more cooperation and face-to-face meetings. Work units requested teachers to visit the units because they are unsure of how to manage and guide practical trainings properly. The representatives of working life feel that they have, alongside with their basic work, a huge responsibility to guide students, discuss with them, justify what they do in their daily work, teach nursing, and make sure that the students learn.

"By the end of year 2021, about 60 new nurses from three student groups will be graduating. Thus, the project responded to the lack of nurses in sparsely populated areas."

New Workforce for Sparsely Populated Areas through the Project

The objective of the Innovative Nurse project was to support and implement degree-awarding nursing education in North Karelia, Lapland and Suomussalmi, provided by universities of applied sciences participating in the project (Karelia UAS, Lapland UAS and Kajaani UAS). By the end of year 2021, about 60 new nurses from three student groups will be graduating. Thus, the project responded to the lack of nurses in sparsely populated areas as well as met the main objective of the Ministry of Education and Culture to earn 9450 credits for 45 students. The number of credits earned within this project exceeded this aim. An internal objective of the project was, for example, to create new types of operating models for nursing education in order to be able to respond to rapidly changing competence needs of the future. Strengthening cooperation with the world of work was one of them. Unfortunately, the COVID-19 pandemic had an impact on the implementation of nursing education for almost two years and, thus, face-to-face meetings had to be cancelled or carried out remotely. On the other hand, distance learning, introduction of digitalisation, and deployment of technology were adopted smoothly by the students. After the graduation, the students have good digital skills to develop nursing to meet today's needs.

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The Impact of the Innovative Nurse Project on the Lack of Skilled Employees in Sparsely Populated Areas

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Sparsely populated areas in North Karelia

The job prospects for graduating nurses are very good in the entire area of Siun sote (Joint municipal authority for *North Karelia* social and health services). In sparsely populated areas, you can get immediate employment either as a substitute nurse or as a permanent nurse. There are also jobs available in special health care in Joensuu. From the point of view of Siun sote, the availability of substitute nurses was high, about 88 %, at the beginning of the new Siun sote organisation (2017) and almost nine employees of ten were employed in case of absences. However, the availability of employees for substituting nursing jobs decreased to around 65 % last year (2020). This may be a result of the corona pandemic, as part of the available staff has been transferred to duties related to corona.

> *"Siun sote has been able to participate in the planning of the education and is delighted with the regional cooperation as educators of skilled professionals."*

The challenges related to the availability of employees are both nationwide and regional, i.e. they also appear in the area of Siun sote. In 2020-2021, some permanent nursing jobs in both home care and housing services e.g. in Nurmes, Heinävesi, Liperi, Kitee, Lieksa, Kontiolahti and Ilomantsi have not been filled. In the future, the challenge may be even bigger, as at least two major megatrends, also in the province of North Karelia, predict that there will be a high demand for employees in the field of social services and health care. The post-war baby boom generation is retiring, and the field of social services and health care competes with other fields for young, future professionals. According to a population projection (2007) by Statistics Finland, provincial population will decline. In Nurmes, for example, the decline in the population from 2010 to 2030 is about 20 %. Another megatrend is the ageing of the population, which increases e.g. the need for elderly and home care services in the region. This affects the availability of employees and services in sparsely populated areas. However, other solutions have also been sought. Siun sote has added staff mobility in the operating area of Siun sote, technological solutions have been created for services, and digital services have been developed and reinforced.

As a result of the reduced availability of employees for long-term replacements, it is increasingly possible to provide permanent jobs in all work units. In fact, as much as 88 %

of employees in Siun sote have a permanent employment contract and only 12 % a temporary employment contract. Hence, there are jobs available, according to an employee's own wishes and preferences. The organisation is large, which enables an employee to have a wide range of duties in the field. Versatile competence is needed, and employees' various strengths and individual interests can be taken into account.

The Innovative Nurse education has proved necessary and useful for Siun sote, especially when considering the lack of professionals in sparsely populated areas. The education has enabled local people to study in their own localities. Siun sote has been able to participate in the planning of the education and is delighted with the regional cooperation as educators of skilled professionals.

By the end of year 2021, 18 of the students in the Innovative Nurse project will graduate for the profession of nurse in North Karelia, and 17 of them will be employed in the sparsely populated areas of North Karelia.

Sparsely populated areas in Kainuu

The Innovative Nurse project responded to the competence needs and lack of nurses in the sparsely populated areas of Kainuu by promoting the availability of nurses to small localities. Many nurses are retiring in Kainuu region which has resulted in the lack of nurses. Consequently, there has been a low number of applicants for nursing vacancies and, in particular, a lack of substituting nurses. As a result, application periods have been extended and some vacancies have been needed to be reopened for additional application. In addition, the lack of employees diminishes equal access to health care services in sparsely populated areas.

By the end of the decade, approximately 1000 employees will retire from Kainuu Social Welfare and Health Care Joint Authority, including experts, assistants, special employees, managers, practical nurses and instructors, doctors, registered nurses and public health nurses, social workers, office workers, support services staff, senior nursing officers, and charge nurses. By the end of this decade, approximately 150 nurses and public health nurses will retire in Kainuu region, which is about 16 % of the total occupational group. (Kainuu Social Welfare and Health Care Joint Authority, personnel report 2020.)

"Several solutions have been considered to alleviate the problem with the lack of employees. The most important means are maintaining and developing the vitality of sparsely populated areas so that the working age population will stay in the region."

By the end of year 2021, 19 of the students in the Innovative Nurse project will graduate for the profession of nurse in Kainuu, and 17 of them will be employed as nurses in Kainuu.

Several solutions have been considered to alleviate the problem with the lack of employees. The most important means are maintaining and developing the vitality of sparsely populated areas so that the working age population will stay in the region. Besides educational organisations, this problem has also been addressed by other regional actors, such as the Regional Council of Kainuu that has been engaged in branding work in the area to facilitate recruitment. In addition, the intake for nursing education has been increased by one third. However, it is challenging to have a sufficient number of suitable applicants for the education in relation to the increasing number of intake and to have enough suitable study-related internships in the region.

As the lack of employees is deteriorating, becoming nurses are required to have the ability to adapt to changing working environments, good cooperation skills, and flexibility. Customer care processes need to be developed in the future. On the other hand, this enables graduating nurses to have various types of career paths and more development opportunities than before, which can make their career more diverse.

Sparsely populated areas in Lapland

The morbidity rates in Lapland Hospital District are higher than in the rest of the country and the population is ageing. The differences between the different municipalities of Lapland in terms of morbidity rates are large. People in Lapland suffer from cerebrovascular diseases, coronary artery diseases and musculoskeletal disorders relatively more than in the rest of the country. (Lapland Hospital District 2021, Strategy and Financial Plan 2021–2023). The high morbidity rate among the population requires a sufficient number of employees to take care of the population of the region.

"The importance of studification of work has increased. New types of opportunities in nursing education are needed to meet the growing demand for labour."

In the next four years, 98 out of 698 nurses and 10 out of 46 midwives will retire (Lapland Hospital District 2019, personnel report 2019, 9). In September 2021, the job application system of Finnish Public Employment and Business Services had 38 vacancies available for nurses or public health nurses in the province of Lapland. It is difficult to get employees for short-term replacements in the entire area of Lapland. (Centre for Economic Development, Transport and the Environment 2021). In Lapland Hospital District, there has not been problems in recruiting permanent employees, but it has sometimes been challenging to get substitutes for temporary replacements (Lapland Hospital District 2021. Financial statement and annual report 2020).

From the Rovaniemi campus of Lapland University of Applied Sciences, 19 of the students in the Innovative Nurse group will graduate as nurses. During the Innovative Nurse education, it has appeared that there is the need to continue implementing this type of education. Lapland UAS has decided to implement this education by increasing student intake and distance learning opportunities, which makes it possible to study remotely, outside campus premises.

The importance of studification of work has increased. New types of opportunities in nursing education are needed to meet the growing demand for labour. Through studification of work, students have been able to complete their last practical training period as a substitute for a nurse and receive salary for this job. Students are employed as nurses throughout the province of Lapland. The work of a nurse is changing, and due to long distances in Lapland, nursing skills that can be implemented remotely, in particular, are emphasised.

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Facilitated Self-evaluation to Support the Development Work within the Innovative Nurse Project

Päivi Sihvo

Facilitated Self-evaluation and Its Implementation

Self-evaluation has a long tradition in project work. In general, self-evaluation is implemented as internal evaluation by project actors. The Innovative Nurse project decided to test facilitated self-evaluation, in which an external person is involved in facilitating the implementation of the evaluation. This article describes the implementation of facilitated self-evaluation and the project actors' experiences of it.

The self-evaluation within the Innovative Nurse project was implemented using the facilitated self-evaluation approach, in which project actors assess the development work carried out at different stages of the development process according to previously set criteria. Project actors' evaluation work is supported by an external facilitator. The purpose of facilitated self-evaluation was to support and direct the development process of the project towards the objectives defined in the project plan. The self-evaluation was carried out as process evaluation during the project, and the focus was on the developers' own observations and experiences, communal reflection, creation of solutions, and on the future of project work. The implementation of facilitated self-evaluation was integrated as a natural part of project team's work and formal reporting of the project. The project managers from the universities of applied sciences participating in the project were the subjects of the self-evaluation process. The support provided by the facilitator focused on the planning of the self-evaluation process, on supporting implementation, and on documentation. (see Kukkonen 2017). The facilitator focused on guiding the working process with questions and positive feedback, and the project actors produced the content themselves (Kupias 2015, 65).

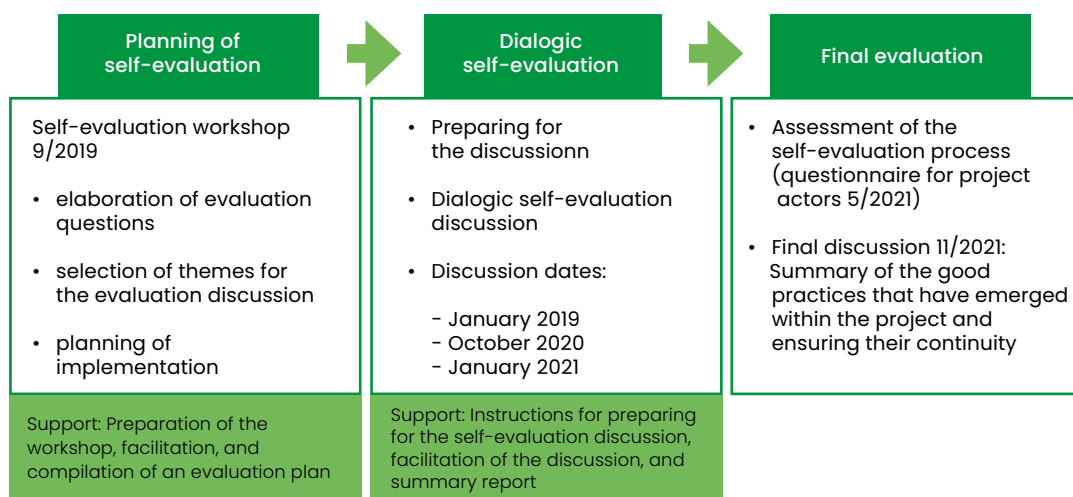| Planning of self-evaluation	Dialogic self-evaluation	Final evaluation

Self-evaluation workshop 9/2019
 	
• elaboration of evaluation questions
 	
• selection of themes for the evaluation discussion
 	
• planning of implementation
	• Preparing for the discussionn
	
	• Dialogic self-evaluation discussion
	
	• Discussion dates:
	
	  - January 2019
	  - October 2020
	  - January 2021
		• Assessment of the self-evaluation process (questionnaire for project actors 5/2021)
		
		• Final discussion 11/2021: Summary of the good practices that have emerged within the project and ensuring their continuity

Support: Preparation of the workshop, facilitation, and compilation of an evaluation plan	Support: Instructions for preparing for the self-evaluation discussion, facilitation of the discussion, and summary report	

Figure 1. Process of facilitated self-evaluation within the Innovative Nurse project

The facilitated self-evaluation process was planned and implemented in cooperation between the project team and the facilitator (Figure 1). The aim of the planning workshop was to clarify the self-evaluation questions and the related themes and to agree on practical implementation. The participants in the self-evaluation discussions prepared for the discussion at their universities of applied sciences by compiling an evaluation matrix of the implemented issues (Table 1). The matrix included the events of the participants' universities of applied sciences as well as evaluation of the progress in relation to the objectives of the project. Any possible problems encountered, predictable challenges, and necessary corrective measures were also listed in the matrix.

The evaluation discussions were conducted remotely via Teams, including joint dialogue on the main issues that had been implemented. The progress in relation to the objectives of the project was also evaluated, solutions for possible challenges were reflected, and concrete areas and measures of development for the entire project and for each university of applied sciences were compiled. The first discussion took place about one year after the start of the project and the next discussion every six months thereafter.

Table 1. Self-evaluation matrix for Innovative Nurse project

Evaluation themes	Quantitative objectives of the project	Implementation of education for the needs of sparsely populated areas	Development of students' competence for the future needs of sparsely populated areas	New role of a teacher	Cooperation with working life	Cooperation between three universities of applied sciences
Evaluation questions by themes	• How have the quantitative objectives of the project been achieved? – Number of credits earned within the project – Number of students – Number of students dropping out of the education vs. number of students finishing the education – Open UAS education (supplementing modules for representatives of working life) • How many nurses became employed in sparsely populated areas? • Are these nurses going to stay there?	• How has it been enabled that students can study in a sparsely populated area? (Flexible educational solutions, new learning environments, use of digitalisation in pedagogy) • Implementation of the contents of the education (project plan)	• What kind of student support and support network supports learning and studying in sparsely populated areas? – Student application and selection process – Student counselling and new methods of implementing student counselling – Proof of competence and assessment of competence (national proof of competence for nurses at the end of nursing education)	• What do the future competence requirements and new methods of implementing education require from teachers? • Which factors have helped teachers to meet future competence requirements?	• What new opportunities have emerged for the cooperation between educational institutions and working life?	• What has been achieved together better than as individual universities of applied sciences? • What have we learned from each other?
Cross-cutting themes	Creation of new operating models, Ensuring the continuity of the developed issues, Information distribution, Feedback and use of feedback in development					

After the discussion, the facilitator compiled a summary of the discussion. The summary consisted of theme-specific summaries and development measures, including the needs and wishes of each university of applied sciences. It also included an evaluation summary of the activities of that evaluation period, including development measures, from the point of view of the project as a whole. The summary was used in the meetings of the project steering group and in the reporting required by the funder.
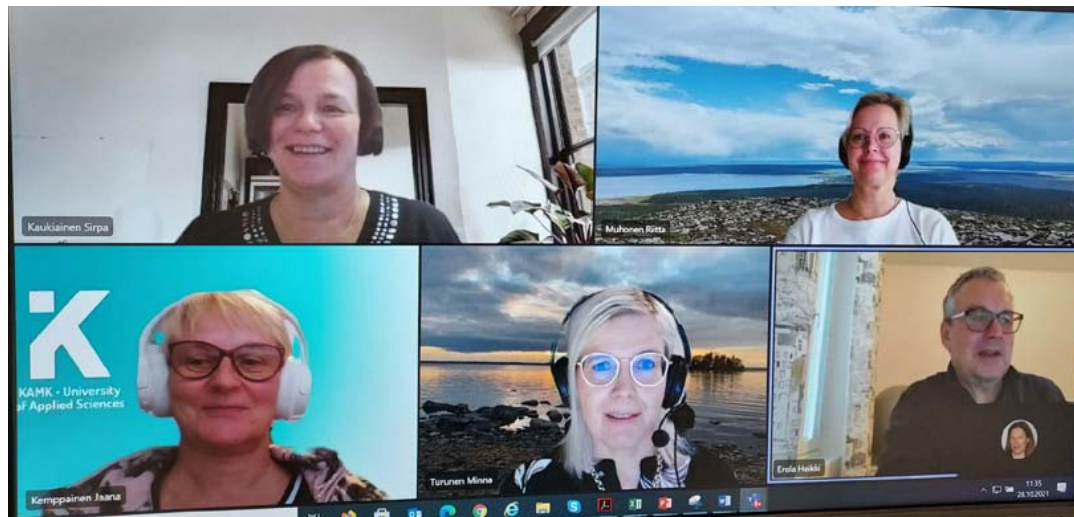
Innovative Nurse project actors: top-left Sirpa Kaukiainen, Riitta Muhonen, bottom-left Jaana Kemppainen, Minna Turunen, Heikki Erola. Photo: Päivi Sihvo.

Experiences of the Self-evaluation Process

The project actors considered that facilitated self-evaluation was useful. The self-evaluation discussions helped them to form an overall picture of the development work within the project. The evaluation also gave a framework for joint work and highlighted the areas of development more clearly. Facilitated self-evaluation was seen as a support and it contributed to the achievement of project objectives. It also made the quantitative and qualitative objectives of the project clearer and helped project actors to follow the achievement of the objectives. Furthermore, it made it possible to look at the development work of one's own university of applied sciences in relation to other universities of applied sciences, and to examine the results of each university of applied sciences in relation to the whole project. This contributed to the balance and work division between project actors.

> "As a project actor, I sometimes forgot to take a wider look at the objectives of the project, but the self-evaluation reminded me to take a look at the things agreed on together. It also gave balance to the contribution of all project actors, so that everyone is committed to doing their own share of project activities."

The self-evaluation process gave a concrete look at the achievements, strengths, areas of development, and the future actions to be taken in the development work. This was of help when structuring the future of the project. The discussions also served the objective relating to work guidance.

"The self-evaluation meetings were also an opportunity to share my thoughts. Someone was really interested in what we have done. This is also kind of a work guidance process. We were able to go through the project, so there was no need to discuss the issue afterwards."

Facilitated self-evaluation discussions were always conducted before steering group meetings. The summaries compiled after the discussions were considered good and they were used in steering group meetings and in project reports. It was good that an external actor led the self-evaluation.

One of the objectives of the discussions was to find solutions to the challenges that emerged in joint dialogues. The participants of the evaluation pointed out that development ideas emerged during the evaluation process for almost all issues to be evaluated. The good practices previously developed by organisations were also taken into account when planning the implementations of the education.

"Our discussion was active and rich. We got tips from each other, but also models that are suitable for that particular area."

Ensuring the continuity of the developed issues was one of the cross-cutting themes in the project. The project experimented many new methods and the experiments resulted in the creation of new methods. Some practices, such as remote teaching and the use of technology in teaching and in the care of patients, will continue to be implemented at universities of applied sciences and in future nursing education. On the other hand, not all new methods can be introduced at the end of the project due to insufficient resources. For example, it is not possible to emphasise the role of teacher tutoring as much.

> ### Benefits of facilitated self-evaluation
>
> - Contributed to the goal-oriented activities and achievement of the objectives of the project
> - Contributed to framing an overall picture of the development measures in the project and their current status
> - Helped us to examine the activities in relation to the objectives of the project
> - Made it easier to concretise the results of the development
> - Made the areas of development in the project clearer
> - Gave a framework for joint work
> - Strengthened the cooperation between universities of applied sciences
> - Contributed to the development of each university of applied sciences
> - Made it possible to brainstorm and reflect together
> - Contributed to the sharing of good practices between universities of applied sciences
> - The participants received tips from each other

Good cooperation with the world of work in sparsely populated areas was considered important. It must be further developed in the future and become even more integrated into social and health care organisations.

Pilot Model for Facilitated Self-evaluation Needs to be Developed Further

The facilitated self-evaluation experiment within the Innovative Nurse project was considered hard and tough and it needs to be developed further. So that facilitated self-evaluation would serve the project as good as possible, it should be made clearer, shorter and lighter to be implemented. The areas for improvement discovered had to do with the entire evaluation process; planning of self-evaluation, preparing for self-evaluation discussions and the discussion itself, and the support for the process. Filling in the form when preparing for the self-evaluation discussions and the process of going through all the themes in each evaluation discussion is too heavy a process and it would need to be made lighter.

In the future, attention should be paid to the selection and number of evaluation themes and questions. The themes to be discussed in the evaluation discussions should focus on the most important and topical themes in relation to the progress of the project. The things already achieved could be omitted from the evaluation and thus, the self-evaluation process would change during the progress of the project. Preparing for the evaluation discussions was considered important. When the participants are well-prepared, the focus in joint discussions can be on the important issues in relation to the current phase of the project as well as on the ideas and solutions to be developed. It would also be useful to assess the self-evaluation process, which would allow the evaluation process to be continuously developed to serve the project better.

Conclusion

Good experiences were gained from the facilitated self-evaluation process. The evaluation brought about clear benefits for the goal-oriented activities of the project, although the process itself still contains several areas of development. The participants of the facilitated self-evaluation process considered that this type of project-based self-evaluation is suitable for all projects, particularly at the beginning of the project to give a framework for the goal-oriented activities of the project. Facilitated self-evaluation appears to be well suited to a project with participants from different organisations. In this case, joint dialogue between project actors is important and self-evaluation discussions provide one goal-oriented opportunity for it. There is still little information on the different models, experiences, and methods of facilitation in facilitated self-evaluation. This article described one example. After this experiment, facilitated self-evaluation can be warmly recommended for implementing self-evaluation within a project.

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