



GNurseSIM

A MODEL OF CULTURE SENSITIVE BLENDED/DISTANCE SIMULATION TEACHING AND LEARNING IN THE FIELD OF GERIATRICS

Publishing House of the University of Applied Sciences in Tarnow



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GNURSESIM – Improving Geriatric Patient Satisfaction: Development of a High-Fidelity E-learning Simulation Course to Develop Intercultural Skills in Geriatric Patient Care

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Introduction

The last decade has been a period of very intensive development of medical sciences and health sciences, to which nursing belongs. We are witnessing numerous changes taking place in the health care system, but also in the system of educating nurses at the academic level. It was the innovative approach to nursing education that gave the impetus on the basis of which changes were made in the practical training of this profession. Bearing in mind the need to improve the quality of education in the field in question – so that the future nurse is fully prepared to fulfill their professional role, well prepared for the broadly understood care, including people of all ages, health, place of residence, work or study – it became necessary to introduce medical simulation to education. Today, medical simulation is the most modern and effective way of educating future medical staff.

The current epidemiological situation has confirmed that we are entering the world of new technologies used in distance learning. The ongoing aging of the population is an undeniable fact. The continuous increase in life expectancy and the increasing proportion of people over 80 in the population is a challenge for many medical fields, especially for geriatrics.

Ever increasing globalisation poses a further challenge to nurses. Increasingly, nurses are faced with the need to provide care to patients coming from different cultures, which requires them to develop and practise another set of profession oriented skills: intercultural competencies.

All this inspired consortium members to develop a project combining gerontology, medical simulation and distance learning. The result is the creation of a course enabling students to gain learning outcomes – practical skills in taking holistic care of an older person based on real scenarios of situations in which nurses will find themselves.

Part 1.

Scoping the views on simulation in the field of geriatric nursing education – a preliminary study

Globally, the number of people over the age of 60 is expected to more than double by 2050. Diseases associated with ageing, such as dementia, are identified by the World Health Organization as being a major global health challenge that current and future healthcare providers must be prepared to meet. And due to the current culture mix, globalization and the degree of mobility in the world of work, it is likely that the elderly patients will be cared for by a geriatric nurse that does not share the same values, traditions and cultural background as the patient. The current epidemic situation makes every higher education institution (HEI) acutely aware of the need to create blended/distance learning courses. It is vital that these are created in a way that optimizes learning and ensures the students' further development of their skills and competencies in the future.

Simulation is a safe way to train healthcare providers to provide effective care for older people and their families and there is evidence that simulation-training can improve the quality of care provided for older people. However, although geriatric simulation programmes are being undertaken worldwide, hardly any touches on the issue of intercultural differences as a problem that professional geriatric nurses should be well conscious of. In this context, the objectives of GNurseSIM are to support HEIs to provide students in geriatric nursing

with opportunities during their training to practise skills of adopting a multidisciplinary holistic approach to the care of older patients. This has been achieved by combining elements from different approaches to arrive at a unified model and develop an intercultural, culture-sensitive geriatric nursing course, as well as recommendations and guidelines regarding the implementation of the course and possibilities it offers to other areas of nursing.

The project was implemented by a consortium composed of 7 partners from 5 countries – Finland, Malta, Poland, Spain, United Kingdom – of which 6 are HEI-CENTRIA, MCAST, MDX, UAS in Tarnow, SAMK, UA – and 1 is an SME specialised in quality in education and knowledge transfer (KIC). Each HEI contributed with:

- ➔ current existing methodological and theoretical frameworks that are used in simulation teaching as well as blended/distance learning and teaching grounded in social constructivist pedagogy;
- ➔ expertise in the field, deciding on the final model;
- ➔ piloting of the course to ensure national applicability. KIC served as the consultative partner – providing specific expertise in creating e-learning platforms and quality and dissemination, as well as in knowledge transfer practices in the field of education & training, to aid successful project completion and assure exploitation and sustainability of its results.

Together, the partners collaborated to:

- ➔ create a methodological framework that constitutes a model for creating social-constructivist, blended/distance courses for nursing students learning to care for the elderly with an emphasis on intercultural aspects, drawing on the expertise and experience of the partners;
- ➔ create blended/distance learning courses based on the model with content developed in simulation laboratories and implement them at partner universities in partner languages;

- ➔ pilot the courses, prepare case studies documenting the implementation of the courses, and develop a set of guidelines and recommendations that were used to enhance the course;
- ➔ prepare a set of guidelines and recommendations that aided the implementation of the model in other areas of nursing education.

Action research is the method selected to carry out the project activities. Following an iterative process, based on an action-reflection-action cycle, it is expected that the project will transform the way student nurses are being prepared to care for the elderly and cater for their needs. It will happen as every partner has implemented a high quality blended/distance learning intercultural course in Geriatric Nursing prepared by the consortium. The course is based on social constructivist assumptions which is implemented through the simulation teaching technique. The content emphasises possible intercultural issues in geriatric care and offer ways of dealing with them. Target groups are nursing teachers and nursing students. The former will use the course to provide the latter with the skills and competences that make care for the elderly professional and socially acceptable. An added value of the project will be the possibility for the non-English native partners and other HEI across Europe and beyond to use the course to enhance their educational on-line offer in foreign languages for incoming students within the Erasmus+ mobility projects. The model developed in the process of realising the project, will serve in the long-term as a point of reference to prepare other courses focusing on intercultural aspects of patient care.

The GNurseSIM partners have analyzed the literature in the area of simulation teaching as well as blended/distance learning and teaching grounded in social constructivist pedagogy. The searches were conducted using key search terms on internet search engines and items were considered for inclusion if they were related to any aspect of e-learning, simulation in education, medical simulations, simulations in geriatric nursing, model for service-learning, model for teaching gerontological nursing. Retrieved papers included research papers, published discourse and existing tools.

Objectives:

- ➔ Definition of the changing environments of blended and distance learning in nursing;
- ➔ Analysis of the current existing methodological and theoretical frameworks that are used in blended/distance learning and teaching grounded in social constructivist pedagogy in the area of nursing;
- ➔ Simulation teaching in the practice of training student nurses;
- ➔ Intercultural issues in geriatric nursing.

Partners selected and determined search engines from their own country using their own language as appropriate. Other search engines included: Google scholar, PubMed, MedlinePlus, Web of Science, Science Direct, EMBASE.

All countries participating in the consortium have been included in identifying the needs with an emphasis on intercultural issues as well as ones related to blended/distance learning and teaching and specific requirements based on particular curricula. Based on the needs of the different interested partners, the most appropriate and suitable framework has been developed by consensus of all partners, and a common set of guidelines for all participating institutions and an integrated theoretical framework has been created which will include the methodology of developing and evaluating teaching scenarios for blended/distance educational environments.

An online qualitative study to explore stakeholders' needs was directed at both students and experts within their field of education or clinical practice. The views from specific stakeholders and students have been gathered focusing their understanding of terms related to geriatrics and the place of simulation in teaching geriatrics at a given university.

Following ethical approval (Jan Kochanowski University of Kielce). GNurseSIM project partners individually recruited participants from their own organisations or their professional networks. Each project

partner conducted their own focus group interviews and using MS TEAMS, ZOOM and Webex recorded the sessions. In one case, the interview with students took place on the premises of the university. Participants were informed their contribution was entirely voluntary, they could leave from the study at any point without giving a reason and without any negative consequences.

Participants included qualified professionals (academics, clinical academics, professionals) and nursing students. For professional stakeholders (academics, clinical academics, nurses working in the field of Elderly Care) the inclusion criteria was the knowledge of the curriculum in geriatrics and the forms of teaching in this subject. For students the inclusion criteria include completion of training in geriatric nursing. All participants are aged 18 and above. Recorded interviews were stored by the partners, transcribed and anonymised by the research team. Partner institutions conducted and transcribed their own interviews. Five countries participated and there were 63 participants including 8 nurses, 17 academic lecturers and 36 students.

After analysing the reports partners prepared after analysing the interview results, it appeared that the interviews found out that MCAST, Malta, PWSZ Poland, Centria Finlandia have a curriculum within a dedicated module in the Bachelor's degree nursing course. In two universities, the content is contained in different areas (UA Spain, MDX UK). One university has not identified whether there is a separate curriculum for geriatrics.

Universities indicated specific skills which students should have after completing the geriatric module. As far as knowledge is concerned the curricula focus on changes that occur in the human body, biological, mental and social problems that may appear in old age, forms of care for the elderly. In terms of skills, the effects relate to recognizing and tackling the problems of elderly people and taking measures to improve care for the older persons. When it comes to attitude and social competences, the effects refer to having an ethical attitude towards an elderly person, activities based on the available scientific knowledge, and cooperation with all members of the therapeutic team.

The learning outcomes listed in the curricula are achieved mainly in placements, where students perform their professional practice.

The number of hours devoted to medical simulation is similar in three universities. It ranges from 8 hours (Poland), 9 (Spain), 11 (Malta) to 27 hours (Finland).

When listing advantages of good geriatric simulation practice, all universities indicated that thanks to medical simulation, students have the opportunity to practice behavior in various, often new, unfamiliar situations. It is not only about technical measures, but above all, the proper identification of the problem and making a decision that allows to solve it. Another huge benefit of medical simulation is learning how to work in a therapeutic team. By participating in a medical simulation exercise, it becomes easier to communicate with other people who care for the elderly.

Another advantage of the medical simulation noted by the partners is the ability to better understand the feelings of an elderly person through the use of old age simulators (glasses, coveralls). Students who did not have close contacts with the elderly can experience the problems elderly people face thanks to the simulation equipment and the simulated patient.

There is no limit to the possibilities to practice situations that the student may encounter and which may be difficult for him/her to evaluate and react in a way that addresses the older person's needs.

While listing the characteristics of a bad geriatric simulation practice, GNurseSIM partners pointed out that the major negative aspect in medical simulation is an insufficient preparation for classes by simulation trainers and students. Also, lack of involvement in the activities carried out was indicated as a problem. Another important aspect is the selection of a topic to be implemented in a medical simulation. Some topics may be too unrealistic and never really come up. Others may be too typical, too obvious, and not requiring training in a medical simulation setting.

Part 2.

The changing environments of blended and distance learning in nursing education

The term “innovation” has existed in education for many years. Modern teaching methods are becoming more and more popular. New teaching techniques, fitting the changing lifestyle, new models of communication, or technological inventions, are developed or redeveloped beyond recognition. Nowadays teaching methods are quite different from those used some years ago. Those changes have caused the necessity of carrying out reforms, which involve tasks and processes of pedagogical nature, as well as changes in the organization and management of the system of education.

In the area of nursing, practical methods of education form the basic value, which has its imprint in history. Passing on skills makes it possible to prepare next generations of nurses to provide new services. However, nowadays, widely understood computerization existing in almost every field of human life, also in education, connects the world through the Internet, globalising the process of education as well (Pluta-Olearczyk, 2004). Real and virtual worlds permeate. Distance learning through worldwide computer network can have many forms and can be designed for people at different ages and with different levels of education. On-line education as a method of leading the educational process, used to concern mainly adults (working people who wanted to enhance their competencies). Nowadays, after the onset of Covid-19, the practice is far more diverse and widespread.

According to Kubiak (2000) distance learning is a way of leading the educational process in conditions when teachers and students are far away from each other (sometimes significantly) interacting either synchronously or asynchronously, using information and telecommunication technology. Contemporary technologies enable direct contact in real time between teacher and student with audio or videoconferencing, irrespective of the distance between them.

In relation to transitions in the field of education, the role of the teacher in the world determined with technological development is changing fast. Changes in education force teachers to verify their ways of teaching and search for new, unconventional, innovative methods. More and more often university teachers face tasks which are new for them: designing, preparing and leading distance teaching. These tasks demand skills in the field of Information Technology: knowing necessary Internet services and connected with them rules of global network communication. Designing and implementing a course is a challenge for many lecturers, even if there is a functional software like a Moodle package. Preparing some educational aids, especially in graphic software, takes a lot of time and requires good knowledge of appropriate software (Axley, 2008). A teacher who conducts distance courses has to cope in a new role of educational and technical advisor, who co-creates the virtual community and motivates students to unassisted work.

Changes which are being implemented in tertiary education are bringing students into the world of work and preparing them to work in the global community, which may be made possible by improving competencies and qualifications of lecturers. Courses in Polish universities are becoming more and more practical. Scientists often cooperate with business actively and develop new solutions for industry or economy. More offers of apprenticeships, new forms of instruction, drawing attention to cooperation in a team and using technological novelties, syllabuses created in cooperation with companies or scholarships for the most ambitious students – these are only some examples of changes in the academia.

Horizon report from 2012 is one of the most important documents concerning changes in modern education. It gives a lot of information about trends and challenges that universities face. Six main aspects have been isolated in this report:

1. Richness of resources and relationships in a network is a big challenge for educators and it demands a redefinition of their roles in education.
2. Education paradigm changes and acknowledges on-line education as well as hybrid education forms and collaboration models.
3. Generally, students expect that they will be able to work, learn and study in chosen time and place.
4. Technologies based on a cloud concept lead to decentralisation of IT support.
5. Students expect bigger challenges and more activities during classes.
6. Focusing on team work has an impact on how to organize students' learning.

Organisation of distance learning and methodology of distance learning are important aspects of research today. As a result of studies in this area, criteria of a good on-line course have been formulated, and many practical principles and tips for designers and teachers who lead those trainings have been found, e.g.:

- ➔ insertion of introductory information about training (course aims, substantive content, subject area, name and e-mail address of the person who leads the training, date of a beginning of the course and its length, a form of getting a credit, exams scheme and grading system and required documents);
- ➔ didactic materials on the educational platform should have reader-friendly, clear structure and links to different sources of information (websites of similar topics);

- adjustment of didactic tasks to different learning styles (e.g. diagrams, figures, listening and speaking exercises);
- making communication between course participants possible, as well as between students and the teacher (e.g. via discussion forum, electronic mail, chats, voice or video-voice conversations);
- participants should get feedback in short time; using activation methods that keep interest and attention of a student.

Analysing characteristic features of distance learning and comparing that form of education with traditional methods, Jakubczak (2007) notices that e-methods:

- enable learning in any place e.g. at home;
- make learning possible in any time e.g. after work;
- make it possible to get new or enhance existing qualifications during the whole life;
- are focused on individual learning pace (implementation of individualisation of learning);
- do not cause the so-called school stress (learning in their own bedroom, in silence, in full concentration);
- enable steady access to didactic resources collected in the base of course knowledge, as well as to different sources of information;
- make unassisted, imaginative work possible, and thus develop students' cognitive and exploratory activity;
- enable the cooperation of people who are far away from each other;
- create optimal conditions for disabled students in education system;
- develop self-education techniques and ability for self-learning, very important skills for continuing education;
- prepare to effective work in teams, improve teamwork.

Distance learning with the use of modern information technologies has also some disadvantages. These are unreliability of technology, a risk of diminishing the contact between a teacher and a student due to technological reasons, loneliness, lack of direct physical contact between the student and the teacher (learning depersonalization), lack of opportunity to use direct motivation techniques on the part of the teacher (Stanisławska, 2003).

The process of planning and production of e-learning courses

The main steps of realising online courses are (Kuciapski, 2010):

1. Forming the substantive material of courses by authors of e-learning/b-learning contents with a range of multimedia, such as: e.g. hypertext, graphics, interactive graphics, films, multimedia animations, webcasts;
2. Electronic trainings production;
3. Electronic trainings implementation.

Part 3.

Analysis of the current existing methodological and theoretical frameworks that are used in blended/distance learning and teaching grounded in social constructivist pedagogy in the area of nursing

Constructivism assumes that the student is an active subject that independently creates his or her own knowledge system, drawing from the available sources. The role of the teacher alongside motivating and supporting, consists primarily in assigning tasks and formulating questions that are problems for students to solve. According to the assumptions of social constructivism, knowledge is assimilated most effectively when we are dealing with collaborative learning. It is possible when a student works in a group, sharing his or her own experiences and opinions, and when he or she is open to the experiences and opinions of others (Śmigielska, 2002).

After conducting research, scientists also came to the conclusion that the theory of social constructivism can be very helpful in understanding why and how individuals integrate and apply new, acquired knowledge in making clinical decisions that are based on evidence, and how practical behaviour may change during interventions that are based on the basic assumptions of this theory. Much research has been done on constructivism and social constructivism in nursing. On the basis of this research, it has been confirmed that the terms “constructivism” and “constructionism” are sometimes used interchangeably, however, they are not synonyms. Social constructionism places a lot of emphasis on

the deliberate creation of knowledge which happens while interacting with others, while social constructivism relies on the principle which assumes human learning happens during social interactions even if they were not designed to induce it.

Social constructivism also focuses on discovering the ways in which individuals and groups participate in the creation of the surrounding social reality. It involves embroiling social phenomena that are created by people into traditions. Socially constructed reality is seen as an ongoing, dynamic process, and reality is reproduced by individuals acting on their interpretation and their knowledge.

In other words, social constructivism is a sociological theory of knowledge that focuses on how individuals come to construct and apply knowledge in socially mediated contexts (Fuhrman, 1994; Hutchinson & Huberman, 1993). The main assumption of this theory is the belief that knowledge is a human construction and that the learner is an active participant in the learning process (Vygotsky, 1978).

This theory is based on 3 main assumptions. These assumptions relate to learning. Firstly, learning is a result of the individual's interaction with the environment. Knowledge is constructed as the learner makes sense of their experiences in the world. Secondly, cognitive dissonance, or the uncomfortable tension that comes from holding two conflicting thoughts at the same time, is the stimulus for learning. It serves as a driving force that compels the mind to acquire new thoughts or to modify existing beliefs in order to reduce the amount of dissonance (conflict). Cognitive dissonance ultimately determines the organization and nature of what is learned (Festinger, 1957). Thirdly, the social environment plays a critical role in the development of knowledge. Constructivism supports the acquisition of cognitive processing strategies, self-regulation, and problem solving through socially constructed learning opportunities (Gredler, 1997; Savery & Duffy, 1995; Steffe & Gale, 1995; von Glaserfeld, 1995).

Several studies suggest future nurses are not likely to be equipped with the knowledge and skills to carry out their duties effectively by using traditional means of education. Todaro-Franceschi (2011:318)

notes that nurses signposted their training did not provide them with the competency to care for the dying and their next of kin. White & Coyne (2011:714) report that twenty five per cent of oncology nurses said they felt they were inadequately prepared to care for dying patients. More worryingly, professional nurses in New Zealand recounted that their early encounters with death and dying, for which they did not feel prepared, left an enduring personal and professional imprint. They felt helpless, distressed and guilty when a patient died (Kent, Anderson & Owens 2012:1255). In a more recent study, Venkatasalu et al. (2014:A34) report that, the “hidden death” phenomenon, which is the outcome of limited exposure to death and the dying in some environments, has caused a lack of sustenance arrangements, which might help educators and students of nursing cope with the sensitive issues surrounding emotions in end-of-life education.

Using films or short video clips, is a method that helps to incorporate an educational experience serving as an opportunity for critical self-reflection. Self-awareness and self-reflection have been reported to have supported students in gaining experiential knowledge to provide end-of-life care (Wang et al. 2019:861). Bailey & Hewison (2014:3555) claim that real-life cases and open-group discussions have the potential to facilitate emotional intelligence, the management of emotional labour and exploration of personal emotions. Also, storyboarding is a method that involves the creative right brain and it has aided students to recognise cultural aspects and feelings associated with the dying patient (Lillyman, Gutteridge & Berridge 2011:179).

A core element of a constructivist instructional approach is facilitating learning in a specific situation: a documented small-group simulation of a scenario. The situations are based on a problem-goal-means plan to make the situation more realistic. The participants work independently on how to predict the treatment in a given situation. Playing a role twice is recommended in order to allow participants to get acquainted with the situation from different perspectives – their own and the person performing a different job. One crucial part of this teaching strategy is to foster extensive reflection by the participants on their performance. The task of the teacher is to discreetly facilitate the

discussion from the background, without disrupting the participants' articulation of their experiences. To achieve structured reflection, it is recommended to consider three categories of activities: action, interaction, communication. Also, each participant needs to reflect on whether the quality of the treatment given met the standards of care (action), whether the collaboration with their interprofessional colleagues was effective (interaction), and whether their communication with patients and interprofessional colleagues was respectful and on equal footing (communication).

Since it is impossible to deal with all aspects of complex action from all perspectives and in all categories, it is recommended that the discussion moderator facilitates and encourages an in-depth discussion, while at the same time structuring the discussion, to ensure that the allotted time is not exceeded.

Part. 4.

Simulation teaching in the practice of training student nurses

4.1. History of simulation in medicine

Simulation, according to Encyclopaedia Britannica, means a research or teaching technique that reproduces actual events and processes under test conditions. Simulations have existed for centuries in many areas of human endeavour. As a method of education, it has its origins in antiquity, when it was used in models for learning anatomy or chess. In 18th-century France, Madame Du Coudray used a fetal and pelvic model to train midwives. In the early 1900s, Fluxner applied it to basic and clinical sciences. In the years 1928–1929, the first Blue box flight simulator was built, and in 1938 the US Army bought 10,000 simulators.

In 1957, the first successful defibrillation was performed, and a year later, research into the technique of mouth-to-mouth artificial respiration began. In 1960, Resuscita Annie was born. This story is part of the development of modern medical simulation. According to the accounts, it has to do with the story of unhappy love. At the turn of the 19th and 20th centuries in Paris, the body of a young woman was found in the Seine. The body showed no signs of struggle. And the pathologist, moved by her beauty, prepared a plaster cast of her face, which in 1960 became the model for the Resusci Annie resuscitation dummy, copied countless times. It owes its popularity to the exceptional beauty and shy

smile compared years later by A. Camus to the Mona Lisa. Over the years, phantoms for medical simulations have become more and more advanced: they cry, bleed, speak in the voice digitally matched to the scenario, analyse the time, dose and method of drug administration, and simulate countless pathologies. And while their interiors look more and more like the inside of a space shuttle, the first thing learners still face is the unhappy Seine girl.

In 1964, Howard Barrows introduced simulated patients to medical education.

Barrows introduced simulated patients, providing learners with a controlled, gradual experience in simulated practice. Following the latest technological advances, computer-aided simulation, virtual reality and the use of haptics (tactile sensations) have been added to the weapon simulation (Bradely, 2006).

4.2. Medical simulation in nursing education

The use of simulation in teaching has increased in recent years and has become an integral part of nursing education. Simulation training is used to develop nursing skills to assess and manage a clinical situation in practice.

Research results show that:

- ➔ simulation-based training significantly enhances students' self-confidence;
- ➔ the experience of simulation-based training and the learning from it improves students' practical skills and their ability to assess the clinical situation;
- ➔ nursing simulations based on standards and scientific evidence help students acquire knowledge, critical thinking skills and self-efficacy;
- ➔ simulation-based training emphasizes the importance of effective communication and collaboration within a team (Standards of Best Practice, 2016).

In view of the above results, the conclusion is that the organization of simulation-based training and its implementation into the curriculum are of key importance for learning and experiencing outcomes in the field of knowledge that transfer to clinical practice. Nursing teachers should be familiar with the necessary tools to incorporate simulation lessons into their nursing programs. International organizations have grown to improve and support the development of medical simulation.

In accordance with the Regulation of the Minister of Science and Higher Education on education standards for the fields of study: medicine, medicine and dentistry, pharmacy, nursing and obstetrics from the May 9th 2012 (State Journal of Law of 2012, item 572, Dziennik Ustaw z 2012 roku poz. 572 (<https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=wdu20120000572>), shaping practical skills in natural conditions should be preceded by shaping these skills in simulated conditions – in nursing skills laboratories. In the subsequent update of the standards in accordance with the Regulation of the Minister of Science and Higher Education on the standards of education preparing for the profession of a doctor, dentist, pharmacist, nurse, midwife, laboratory diagnostician, physiotherapist and paramedic from July 26th, 2019 (Journal of Laws of 2019, No. 2019, item 1573, Dziennik Ustaw z 2019 roku poz. 1573 (<https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20190001573>), a provision was introduced indicating that practical classes and apprenticeships should be organized in such a way that acquiring practical skills in natural conditions was preceded by acquiring these skills in simulated low fidelity conditions.

Medical simulation used in education at medical faculties, including nursing, enables:

- increasing the professional competences of students and university teachers;
- allows for the systematic and integrated development of clinical skills;
- introduces a new quality of practical vocational training by combining the acquired theoretical knowledge and practical skills with the use of advanced simulation equipment;

- enables the elimination of errors at the preclinical stage, before actual contact with the patient;
- teaches in a safe manner the way of proper behavior and making decisions in difficult and rare cases;
- teaches problem-solving;
- gives the opportunity to develop students' social competences (Santalucia et al., 2016).

In simulated conditions, students can practice a given procedure multiple times without clinical consequences if they make a mistake. It is also possible to plan education based on the real needs of students and the curriculum, rather than the availability of patients. Importantly, in a situation where in clinical conditions patients more and more often refuse to cooperate with students, there are no legal and organizational restrictions during the medical simulation related to the need to obtain the patient's consent for the procedures to be performed. The use of simulation-based methods is aimed at protecting patients against unnecessary risks related to insufficient preparation of graduates for their professional role.

A variety of equipment and supplies are used in medical simulation. These can be simple trainers for practicing specialized procedures, advanced simulators reflecting the functions of the human body, virtual reality in which it is possible to conduct decision games. Classes with the participation of a simulated patient and a hybrid patient are also planned (Sawin et al., 2016).

4.3. Principles of designing simulation classes in nursing

Training emphasizes the importance of team communication and collaboration. It was found that participants in the simulation classes displayed greater confidence before entering clinical practice. For high-quality simulation-based education (SBE), it is important to use standards developed on the basis of current knowledge, procedures, theories of learning and communication in the design of classes. An indispensable element of the simulation experience is also the entire

simulation environment, which determines the degree of realism of the experienced situations. Different degrees of fidelity to simulation should always be considered and structured in order to achieve the intended program objectives and learning outcomes. Fidelity is defined as the precision or accuracy of the replication of reality in a simulation. In the case of nursing education, simulation experiences should have a different degree of fidelity for different types of students depending on their level of competence, which is related to the degree of education. The level of simulation fidelity you choose also depends on the type of task to be practiced. Simulations can range from being completely artificial (low) to fully replicating the real situation (high).

Technological progress also enables the introduction of virtual or virtual reality simulations. A multimedia approach is then used that includes visual, textual and auditory aspects, allowing the implementation of nursing skills along with intervention and communication. There are studies comparing the effectiveness of virtual simulation and in direct contact with the student. Both forms have been found to have an increase in clinical knowledge and outcomes as well as a moderate increase in skill. On the other hand, a certain limitation of virtual simulation is the small or even inability to shape teamwork in nursing, which is an important aspect of everyday clinical practice (Carstens et al., 2020).

4.3.1. Medical simulation standards

International Nursing Association for Clinical Simulation and Learning (INACSL) is a world leader in transforming nursing practice to ensure high quality of care and patient safety. INACSL is composed of medical simulation practitioners, simulation leaders, educators, researchers and industry partners. In an effort to improve nursing preparation and training methods, INACSL has developed the INACSL Best Practice Standards: SimulationSM to advance simulation learning, share best practices, and provide evidence-based guidance for implementing simulation in education. The standards are constantly updated according to the latest knowledge and research. The adoption of the Standards demonstrates the team's commitment to quality

improvement and implementation of Evidence-Based Nursing (EBN) practices in health education to improve patient care. Simulation-Based Experiences (SBE) should be designed to achieve the intended learning outcomes and objectives. This is possible thanks to the use of standards in simulation design.

It lists the criteria necessary to meet the SBE design standard:

1. Perform a needs assessment to provide the foundation for a well-designed simulation;
2. Create measurable simulation goals;
3. Determining the structure of the simulation based on the set goals, the adopted theory and the method of simulation;
4. Designing a simulation scenario, a case;
5. Determining the level of simulation fidelity;
6. Provide a facilitating approach that is conditional on the objectives set, and the level of knowledge and experience of participants;
7. Starting the simulation from prebriefing;
8. Conducting debriefing or feedback;
9. Conducting the evaluation of participants, facilitator, and the course of the simulation;
10. Provide participants with materials to help them prepare and achieve simulation objectives;
11. Performing a pilot test before fully implementing the designed simulation (INACSL Standards Committee, 2016).

4.3.2. High Fidelity Simulation

High Fidelity Simulation (HFS) typically has more complex scenarios while closely mimicking the real clinical environment. More focus is placed on the provision of nursing care and communication between patient and nursing student and communication with the team. As observed in clinical settings, human interactions are complex and

the benefit of high-fidelity simulation is the opportunity to mimic these complex relationships. Therefore, attention is paid not only to the correctness of clinical decisions, but also to the use of proper communication procedures (close loop, ISBAR protocol), team collaboration, or the ability to use elements of Crisis Resource Management, (CRM). It is not always important to the performance of a specific isolated action, but rather the whole context of the patient's health situation, the correctness of the clinical reasoning and decisions made.

High-fidelity simulation often uses a computer-aided manikin, which can mimic many of the functions of a living organism, or a standardized patient (SP) that works with the student. But a computer-assisted manikin or SP are not necessarily needed for high-fidelity simulation. With suitable resources, a high-fidelity simulation can be carried out with using a basic manikin without advanced features. However, it is important to the closest possible reproduction of the clinical environment.

There is increasing evidence that high-fidelity simulation technology can provide major challenges for the nursing workforce. The most common barriers are: time constraints lack of or poor technological skills and problems with high workloads.

There is a developing body of research evaluating the impact of the level of fidelity of the experience simulation experience on performance and learning outcomes. Some of these have shown that simulations of high fidelity benefited nursing students in knowledge acquisition, critical thinking and becoming confident in performing nursing care. It is necessary, however, more verification of hypotheses and improvement of research tools is needed (Massoth et al., 2019; Vincent et al., 2015).

In summary, HFS is used to:

- learning non-technical skills, diagnostic process, treatment, decision-making, advanced procedures, teamwork, team management;
- reflecting on the quality of care provided to the patient and communication techniques;

- ➔ HF simulators and HF environment – all elements of the scenario should be done to truly mimic the clinical environment as closely as possible (Al-Ghareeb & Coopers, 2016).

4.3.3. The simulated patient

Simulated patients (SP) are used in simulation-based education. The use of SPs in nursing education offers students the chance to experience interaction with a patient who simulates a real patient, but in a safe and controlled environment. SP classes encourage interaction with ‘real’ patients, improve communication techniques and interpersonal skills, provide realistic patient behaviour and reactions.

SPs take part in the simulation not only as patients or family members, but they can also as other team members, e.g. doctor and physiotherapist. The literature points to various benefits of simulated patient activities. These include:

- ➔ immediate feedback from the SP;
- ➔ improvement of clinical skills by students;
- ➔ improvement of soft skills, self-confidence;
- ➔ reduction of anxiety related to clinical practice and contact with real patients.

For high quality education and standardization of simulation classes, those qualified to collaborate as simulated patients should be trained. Poor quality of SP work may negatively affect the student’s experience during the simulation (Standards of Best Practice, 2016).

4.3.4. Medical simulation environment

The simulation environment is important and determines the level of realism reflected of places and situations. Space and training tools are important factors to consider when developing simulation activities for nursing students. Simulation is an active learning strategy. It uses a variety of tools to imitate reality, demands that nursing students use their

knowledge and abilities to respond to the scenario presented. It is therefore essential that simulation uses all the necessary elements present in the real healthcare environment to design the simulation. These may include an electronic medical records with the patient's health history, laboratory results, physician's orders, observation charts, and equipment routinely used in the clinical settings. The more elements are in line with reality, the easier it will be for the student to find his or her way in the clinical setting, which will increase his or her self-confidence.

Before running the scenario, the student reviews basic information relating to the simulation. It simulates the clinical aspect and supports the application of knowledge achieved in earlier stages of education. The tools needed in a simulation environment include models, mannequins, physical space, computers, props and communication tools such as telephones or pagers. There has also been a growing development in the last few years in the technique so-called moulage (in English: plaster casting). Specialized equipment is made or the design of the phantoms, trainers is changed so that they reflect reality and real symptoms as closely as possible.

The maintenance of simulation equipment and the simulation environment is a continuous process and often a difficult aspect for lecturers. This is due to the use of advanced technology manikins, computers, audio-visual equipment and simulated medical equipment. Simulation teachers often step into a technological environment about which they have very minimal knowledge of, but are expected to "make it work". A great support in the team can be a simulation technician who is trained in the use and upkeep of equipment, helps prepare the simulation room for classes, takes care of repairs and ongoing maintenance (Standards of Best Practice, 2016).

The following elements are important in creating the simulation environment:

- ➔ making all the actions performed realistic (no simulation);
- ➔ as much real equipment as possible;
- ➔ provide a good sound system – separate for the instructor;
- ➔ high fidelity scenario can be led by 3 people:

- patient voice,
- person running the scenario (god's voice) + changing the simulator parameters – student says: I am investigating edema – voice of god – no edema,
- technical person (e.g. when student needs to call somewhere);
- ➔ 2 computers – one for the simulator, the other for sending different information; take notes on the course of the scenario for debriefing, and additionally you can record the realization of the scenario;
- ➔ microphone – pay attention to settings (voice of god or voice of the patient);
- ➔ speakers, cameras (6 in the room);
- ➔ recording and debriefing system;
- ➔ check efficiency and get to know the simulator operating system well;
- ➔ determine the handling of sending/receiving tests – how to send the results (paper -bring or computer printout).

Before the simulation:

- ➔ check your equipment;
- ➔ run systems;
- ➔ check the scenario;
- ➔ get participants acquainted with the room;
- ➔ give participants time to settle in.

During the simulation:

- ➔ have students assist you, but be prepared as if you were on your own;
- ➔ be ready for the simulator to react according to the participants' actions or to program trends well;
- ➔ answer phones for consultation (teach communication – ISBAR protocol, closed loops);
- ➔ measure time and take notes.

After the simulation:

- announce that the scenario is over;
- develop a strategy for cleaning up the room (participants, yourself, technique);
- debriefing:
 - what kind (low, medium, high level)?
 - where?
 - what do you need (video from camera – run it quickly, a short piece, notes – what to discuss and at what minute)?

To remember:

- getting to know the environment;
- plan what you need before and what you want to do after the simulation;
- get to know the environment and equipment well yourself.

3.4. Debriefing in medical simulation

All authors dealing with the topic of medical simulation indicate that debriefing is its most important element. Debriefing is the facilitation of reflection after the experience of a given event. During the debriefing session, students work with a teacher/instructor (facilitator) who guides through the various steps of debriefing, guiding the discussion so that participants can understand the basis of their behaviour and learn from them. During this part of the medical simulation implementation the student has the opportunity to develop reflective thinking and clinical reasoning. Experience gained during the scenario makes sense, it will later facilitate the implementation, of theory into clinical practice. The simulation of a specific event provides an opportunity to practice and rehearse, and debriefing provides a forum for active discussion and learning. Mutual reflection and discussion lead to meaningful learning, which has a positive impact to improve outcomes in the clinical environment. To achieve these effects of debriefing it is necessary to provide the right atmosphere during the class – trust, understanding, acceptance (Bae et al., 2019; Dieckmann et al., 2009; Dismukes et al., 2006).

On the other hand, it is essential to involve both the instructor and the student. The higher the level of the student group, the less the instructor can be involved. The instructor in such a situation only moderates the discussion and the students come to conclusions. The facilitator must be prepared for debriefing in terms of their competences in terms of knowledge and skills, improving debriefing techniques, developing communication techniques that will support the process of reflective thinking process. It should use the latest research being conducted in this area. Teachers who have been teaching simulation-based classes for many years and who do not use EBP, may still think that using video recordings during a session is the best way to conduct it. Meanwhile, new research shows the limited value of video assisted debriefing (VAD) and its lack of advantage over oral debriefing (OD) (Frandsen & Lehn-Christiansen, 2020; Holldrid et al., 2020; Schober et al., 2019).

Traditionally, debriefing is conducted at the end of a scenario, but short feedback during the scenario is also valuable. Debriefing involves active participation of the student in the discussion. The facilitator is of great importance in involving the students in the debriefing process. The facilitator can both strengthen and weaken the students' motivation processes. It has been shown that strengthening student motivation and building a sense of security and confidence in the students is not something given at the beginning, but depends on the interaction of the students with the facilitator and on the facilitator's personality and effort in leading the class. Students, who is passive during the class, experiences various frustrations that grow over time and concern may include:

- lack of confidence in the effectiveness of the simulation method;
- lack of willingness to participate in discussions (Oriot & Alinier, 2018; Ostovar & Allahbakhshian, 2018).

4.5. Geriatric nursing

4.5.1. Demographic situation – elderly population

Processes related to the systematically increasing duration of life and constant changes pose new social challenges to society in the demographic structure of the population, ie responsible design of social policy towards the elderly and implementation solutions that will ensure a dignified, safe active old age.

According to World Population Prospects 2019 (United Nations, 2019), by 2050, 1 in 6 people in the world will be over the age of 65, up from 1 in 11 in 2019 (World Population Ageing, 2019).

Over the past 30 years, we have observed a slowdown in demographic development in Poland and significant changes in the age structure of the inhabitants. The ongoing aging of the population Poland is the result of a low fertility rate and extending life expectancy. At last In 2019, the population of Poland amounted to 38.4 million, including over 9.7 million people of the age 60 years and more (over 25%). Compared to 2015, the number of people of senior age increased by over 900 thousand people (Informacja o sytuacji osób starszych w Polsce za 2019 r., 2020).

4.5.2. Medical simulation in geriatric nursing

Geriatric medicine is a challenging specialty, concerned with the care of older people, often with multiple co-morbidities, frailty and complex social care needs. In its response to the Francis report, the British Geriatrics Society stated that many of the failings in care affected older patients, who are a potentially vulnerable group with complex needs, in addition to being the main users of the UK National Health Service (NHS) (Mid Staffordshire NHS Foundation Trust, 2013; BGS responds to the Francis Report, 2013). It is imperative that specialist trainees in geriatric medicine are afforded opportunities during their training to practise skills of adopting a multidisciplinary holistic approach to the care of older patients, and there is evidence that simulation training can improve the quality of care provided for older people

(Ross et al., 2013). Although this teaching method is now widely used in medical education, a dedicated simulation training programme for specialist trainees in geriatric medicine has previously been lacking in many countries of UE.

In recent years, there have been studies that confirmed the benefits of introducing medical simulation to the teaching of geriatric nursing.

Students integrate geriatric theoretical knowledge with clinical skills as a result of simulation. Geriatric scenario simulation and practice of clinical patient handover are valuable instruments before entering clinical training with geriatric patients, even for novice students. The use of genuine simulation cases and instruction on the use of clinical handover instruments are effective in producing conceptual changes that prepare students for their first encounter with complex, real-world geriatric scenarios (Donnelly et al., 2017; Sari et al., 2020).

The project GNurseSIM in geriatric nursing highlights the importance of trainees developing skills in managing complex medical scenarios involving a variety of medical, intercultural and ethical issues. It outlines the need for trainees to develop confidence and competence in providing comprehensive assessments of older people during acute and chronic illness, rehabilitation and at the end of life, and in a range of settings, including accident and emergency, high-dependency units, ward-based and out-patient hospital settings, at home and in intermediate or long-term care (Smith & Barry, 2013).

Prepared courses are also expected to develop nursing skills by working closely with the multidisciplinary intercultural team of patients, families, doctors, therapists, pharmacists, dieticians, and other health and social care professionals. The training of nurses has undergone a major change recently. Simulation is able to deliver medical education in realistic settings without compromising patient safety. This teaching method has been widely adopted for nursing students in a variety of specialties, such as anaesthetics, emergency medicine, and paediatrics (Chakravarthy et al., 2011; Gaba et al., 2001; Dahlake et al., 2020). It enables experiential learning by allowing trainees to become

immersed in realistic scenarios, within which the outcome is dependent upon their abilities to manage the problem, as well as display effective non-technical skills. Simulation also allows trainees to practise rare emergency situations, to which they may not otherwise be exposed.

Simulation training affords situational learning without compromising patient safety and focusses on trainees' ability to display effective non-technical skills, crucial in the multidisciplinary environment, as well as their ability to manage clinical problems (Fisher & Walker 2014). Students integrate geriatric theoretical knowledge with clinical skills as a result of simulation (Demirtas & Tulay 2021; Eymard et al., 2010).

Part 5.

Intercultural issues in geriatric nursing

In healthcare contexts, interactions between people from different cultures are becoming increasingly commonplace. This increase in intercultural contact can be traced to two primary sources. First, increased migration and movement of people in general, worldwide, is resulting in more diverse and multicultural patient populations (Stilwell et al., 2004). Second, and related, increased mobility of medical professionals sometimes promoted by recruitment of foreign workers is resulting in more diverse and multicultural workforces in clinics and hospitals (Jinks et al., 2000). This is particularly the case for medical professionals, such as nurses, in the European Union. Western Europe is currently suffering from a shortage of qualified healthcare professionals in terms of both doctors and nursing staff (Eurostat, 2015). As a result, many countries welcome foreign medical professionals sometimes actively recruiting them from both within and outside the European Union (Stilwell et al., 2004). In an EU context free movement has been facilitated by Directive 2005/36/EC on the recognition of professional qualifications, which came into effect in October 2007. As a result, medical teams increasingly consist of staff with diverse ethnic, cultural and linguistic backgrounds (Stilwell et al., 2004; Jinks et al., 2000). The recent influx of migrant groups to the EU has further increased the cultural and linguistic heterogeneity of this patient population. As cultural and linguistic diversity in healthcare contexts increases (Schouten & Meeuwesen, 2006), so does the frequency of intercultural interactions. All of these factors contribute to a growing need for medical professionals to have strong intercultural communication skills, ideally in more than one language.

To address these risks, it is important for healthcare personnel to be trained in cross-cultural competence (CCC). CCC is defined as “the ability to provide quality care to patients from different socio-cultural backgrounds” (Bardet et al., 2012). Generally, teaching and learning of CCC addresses three domains: knowledge, skills, and attitudes. According to Bardet et al. (2012), “Cardinal aspects [of CCC] include the ability to manage language barriers, communication styles, mistrust and prejudice, family dynamics, customs and spirituality, and sexual and gender issues. CCC depends also on demonstrating empathy, curiosity, and respect”. The importance of CCC, and cross-cultural communication skills more broadly, is generally recognized by the professional community: interpersonal communication and multicultural nursing, for instance, are defined as indispensable competencies for patient-centered care (AACN, 2008; CCNE Accreditation, 2016; EFN, 2015) as are the competencies to give advice independently, instruct and support persons needing care and comprehensively communicate professionally (Directive 2013/55/EU of the European Parliament and of the Council). However, medical professionals do not always receive adequate education and training in these areas (Bardet et al., 2012; Park et al., 2009). Casillas et al. (2015) specifically cite lack of experience and inadequate training as factors contributing to medical providers’ lack of cross-cultural preparedness.

People are living longer and culturally and linguistically diverse older adults represent a growing proportion of changing demographics (World Health Organization, 2018). However, deficits in nursing care provided to this cohort (Soderman & Rosendahl, 2016; Gillham et al., 2018) and their families (Johnstone et al., 2016), need attention. There is growing evidence to highlight the challenges of caring for older people and their families (Koskinen et al., 2015; Soklaridis et al., 2016) and culturally and linguistically diverse patients (Kouvner et al., 2018; Markey et al., 2020). The term cultural and linguistic diversity (CALD) refers to the diversity of different cultures and language groups represented in the patient population (Department of Health and Human Services, 2014). The need for culturally safe and quality person-centred approaches to care for CALD older people is identified

as an urgent necessity (Wang et al., 2018). Person-centred care has been previously advocated by Nolan et al. (2006), who argued for the inclusion of relationship-centred care (RCC) in ensuring both older people and their families' needs are met (Soklaridis et al., 2016). Nolan et al. (2006) draws attention to the importance of everyone feeling a sense of security, belonging, continuity, purpose, achievement and significance. Although the importance of such philosophies of care are clearly identified, student and registered nurses continue to experience difficulties caring for CALD older adults and their families (Soklaridis et al., 2016; Gillham et al., 2018; Wang et al., 2018).

As an increasing number of ethnic minority persons, whether belonging to immigrant or indigenous groups, grow old, health care professionals need to realise that cultural background may influence upon their needs and expectations. This is particularly so when ethnic minority persons develop dementia. The way the various forms of dementia affect people's mental functions, language, etc. is universal, while behaviours, reactions and responses may be coloured by the patient's background culture. This may add socio-cultural and linguistic challenges to that of caring for elderly persons and make it more difficult for health care personnel to understand, communicate and care for patients with dementia who hail from different cultural backgrounds than themselves (Hanssen, 2012).

Caring can only be complete if all aspects of person and context are considered. "It involves body, mind and soul, as well as cultural and social aspects of caring for the human body" (Wikberg & Eriksson, 2008). Cultural background influences the experiences of care and how people with dementia react. Culture-specific issues are significant for creating trust in care (Heikkila & Ekman, 2000). It is necessary to understand individuals with dementia to be able to help them continue what for each person is his or her normal, culturally appropriate life as far and as long as possible, even when living in a geriatric institution.

Nowadays, it is possible to rely on cultural assessment tools such as The Transcultural Nursing Assessment Guide (Anderson et al., 2010) (see Appendix 5).

Apart from the focus on intercultural issues related to geriatric nursing, it is also important to focus on the users of the course and their culture-related needs. McLoughlin and Oliver (2000:62) argue that “[i]nstructional design cannot and does not, exist outside of a consideration of culture”. Therefore, it impinges on notions of cultural identity and cannot be culturally neutral. McLoughlin and Oliver (2000:65–68) describe ten design principles for culturally inclusive instructional design.

The following represents ten design principles for culturally inclusive instructional design:

1. Adopt an epistemology that is consistent with, and supportive of constructivist learning and multiple perspectives. This form of emancipatory pedagogy ensures recognition of students’ capacity to construct their own knowledge, bring prior experience and culturally preferred ways of learning;
2. Design authentic learning activities;
3. Create flexible tasks and tools for knowledge sharing;
4. Ensure different forms of support, within and outside the community;
5. Establish flexible and responsive student roles and responsibilities;
6. Provide communication tools and social interaction for learners to coconstruct Knowledge;
7. Create tasks for self direction, ownership and collaboration;
8. Ensure flexible tutoring and mentoring roles that are responsive to learner needs;
9. Create access to varied resources to ensure multiple perspectives;
10. Provide flexibility in learning goals, outcomes and modes of assessment.

Conclusions

The dynamically changing epidemiological situation and the development of modern technologies encourage the combination of various forms and techniques of learning, including nursing students. In all countries participating in the project, the problem of demographic change and an increasing proportion of elderly people are recognized. In all partner countries, the education of nursing students involves the use of medical simulation in the educational process.

The analysis of all aspects covered by the project blended / distance environment, social-constructivist, culture sensitive, intercultural and medical simulation shows that combining them into one model will improve high quality of care for an elderly patient (Fig. 1). This will be contributed to by the development of more online training materials for teachers and nursing students.

Fig. 1. A culture-sensitive social-constructivist model of blended/distance simulation based learning and teaching



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Appendices

Appendix 1

List of possible topics simulation scenarios in geriatric nursing

Infirmity in geriatric patients and related problems at home
Activation of the elderly – games, logical games, needlework, etc.
Communicating with an elderly person in a home environment
Help in dealing with everyday matters – arranging a doctor’s visit, arranging a prescription
Improving self-service activities at home (getting out of bed, adequate amenities, no barriers – thresholds, carpets)
An elderly person at home has a low physical activity. Goal: to obtain information on what causes low physical activity, to encourage physical activity
Taking medications. An elderly person at home is prescribed new medications. Goal: to help the person cope with new medications
An interview with a demented patient on admission to the ward. Goal: obtaining information from the patient
Admission to the ward of an elderly patient with multiple diseases. Goal: collecting information about the patient’s diseases
Integrating the use of welfare technology for activating functional capacity, e.g.
Integrating the use of welfare technology for therapeutic communication
Integrating the use of welfare technology for managing at home, e.g.
Integrating the use of welfare technology for activating functional capacity, e.g.
Rehabilitative and restorative nursing care for elderly as a basis.
Integrating the use of welfare technology, e.g.
Understanding the behaviour of a person with progressive memory disorder (behavioral changes, behavioural symptoms) and confronting the person with understanding (e.g. validation therapy) as a basis.
Client-/patient-/person centredness and hearing the person’s voice in assessing the need for care when close one / family member is involved.
Effect of the arts on health and wellbeing of elderly
Green care activities promoting health and wellbeing
Family caregiving, considering their situation (coping, burden)
Sexuality of the elderly
Multi-professional collaboration (social worker, physiotherapist, occupational therapist, doctor, hospital pastor, psychologist)

Appendix 2

Types of context

Type of Context/ Health and/ or Social Care Service	Concept	Objectives	Target Group
Medical Care Services			
Hospital	Response that is achieved through a set of comprehensive, flexible, multi-disciplinary actions and care, accessible and articulated health support, to be provided in hospital setting for twenty four hours a day and seven days a week.	<ul style="list-style-type: none"> ➤ Ensuring the provision of health care; ➤ Contribute to improving the quality of life of people and families; ➤ Ensure the provision of physical care and support to individuals and families, in order to contribute to their balance and well-being; ➤ Support users and families in meeting needs basic and daily life activities; ➤ Contribute to slowing or avoiding institutionalization. 	People in need of care due to health reasons.
Hybrid Medical-Social Care Services			
Integrated Support Unit (UAI)	Response, developed in equipment, which aims to provide temporary, global and integrated care, the persons who, on grounds of dependency, cannot, remain supported in their homes, but who do not seek clinical care in hospital.	<ul style="list-style-type: none"> ➤ Create conditions of autonomy for people in order to enable them to return to their home or environment family member, even if they need home support integrated; ➤ Providing convalescence care to patients rehabilitation and training, focused on promoting the promotion of self-care and satisfaction of basic needs; ➤ Ensure socio-cultural, occupational animation activities and activities of daily living, involving families and other formal carers; ➤ Contribute to the prevention of dependency and promotion autonomy. 	People in need of care continued health and social support, whatever their age and origin.

Hybrid Medical-Social Care Services			
Integrated Home Support (ADI)	Response that is achieved through a set of comprehensive, flexible, multi-disciplinary actions and care, comprehensive, accessible and articulated, social and health support, to be provided at home, for twenty four hours a day and seven days a week.	<ul style="list-style-type: none"> ➤ Ensuring the provision of health care and support social media; ➤ Contribute to improving the quality of life of people and families; ➤ Ensure the provision of physical care and support to individuals and families, in order to contribute to the for their balance and well-being; ➤ Support users and families in meeting needs basic and daily life activities; ➤ Contribute to slowing or avoiding institutionalization; ➤ Develop playful-therapeutic-occupational activities; ➤ Ensure support for family members with people in a situation dependency in their charge, including training in the provision of care. 	People in a situation of dependency and their families.
Social Care Services			
Home Support Service	Social response, developed from an equipment, which consists in the provision of individualized and personalized care, at home, to individuals and families when, due to illness, disability or other impediment, they cannot ensure temporary or permanently the satisfaction of basic needs and/or activities of daily living.	<ul style="list-style-type: none"> ➤ Contribute to improving the quality of life of individuals and families; ➤ Ensure the provision of physical care and support to individuals and families, in order to contribute to the for their balance and well-being; ➤ Support individuals and families in meeting the needs basic and daily life activities; ➤ Create conditions to preserve and encourage inter-family relationships; ➤ Collaborate and/or ensure access to the provision of care health care; ➤ Contribute to slowing or avoiding institutionalization; ➤ Prevent situations of dependence, promoting autonomy. 	Individuals and families, priority-minded, elderly people, people with disabilities, people in dependency situations.

Social Care Services			
Conviviality Center	Social response, developed in equipment, to support socio-recreational and cultural activities, organised and dynamicised with the active participation of the old people of a community.	<ul style="list-style-type: none"> ➤ Prevent loneliness and isolation; ➤ Encourage participation and enhance social inclusion; ➤ Foster interpersonal and intergenerational relationships; ➤ Contribute to slowing or avoiding institutionalization. 	Persons residing in a particular community, primarily aged 65 and over.
Day Center	Social response, developed in equipment, which provides a set of services that contribute to maintenance of the old people in their socio-family environment.	<ul style="list-style-type: none"> ➤ Provide services that are appropriate to meet users needs; ➤ Contribute to the stabilisation or delay of harmful consequences of ageing; ➤ Provide psychosocial support; ➤ Foster interpersonal and intergenerational relationships; ➤ Encourage the permanence of the old person in his midst usual life; ➤ Contribute to slowing or avoiding institutionalization; ➤ Contribute to the prevention of dependency situations, promoting autonomy. 	People who need the services provided by the Day Center, people aged 65 and more years.
Night Center	Social response, developed in equipment, which aims at night care, primarily for the old people with autonomy who, because they experience situations of loneliness, isolation or insecurity require overnight follow-up support.	<ul style="list-style-type: none"> ➤ Welcome, during the night, the old people with autonomy; ➤ Ensure well-being and safety; ➤ To encourage the permanence in their usual environment of life; ➤ Avoid or delay institutionalization. 	Primarily people of 65 and more years with autonomy or, in exceptional conditions, aged to be considered on a case-by-case basis.
Foster Family for Seniors	Social response consisting of integrating, temporarily or permanently, into	<ul style="list-style-type: none"> ➤ To welcome the old people (a maximum of three), who are in a situation of dependency or autonomy loss, live in isolation 	People 65 and older.

Social Care Services			
	families considered suitable, the sick when, due to the absence or lack of family conditions and/or lack or insufficiency of social responses, cannot remain at home.	<p>and without support of a family-member and/or in a situation of insecurity;</p> <ul style="list-style-type: none"> ➤ Guarantee a socio-family environment to the person welcomed and affective conducive to the satisfaction of their needs and respect for your identity, personality and privacy; ➤ Avoid or delay the use of institutionalization. 	
Residence	Social response, developed in equipment, consisting of a set of apartments with spaces and/or services for the old, or others, with total or partial autonomy.	<ul style="list-style-type: none"> ➤ Provide accommodation (temporary or permanent); ➤ Guarantee the old person a comfortable life and a calm and humanized environment; ➤ Provide adequate services to the biopsychosocial problem of the old people; ➤ Contribute to the stabilisation or delay of harmful consequences of ageing; ➤ Create conditions to preserve and encourage inter-family relationship. 	Persons 65 years and older or under exceptional conditions, to be considered on a case-by-case basis.
Nursing Home	Social response, developed in equipment, intended for collective accommodation, temporary use for the old or others at higher risk of loss of independence and/or those at increased risk of loss of independence and/or or autonomy.	<ul style="list-style-type: none"> ➤ Welcome the old or other people whose social situation, economic and/or health, does not allow them to remain in their usual means of life; ➤ Ensure adequate care for needs satisfaction, with a view to maintaining the autonomy and independence; ➤ Provide temporary accommodation as a way of family support; ➤ Create conditions to preserve and encourage inter-family relationship; ➤ Forward and accompany the old to appropriate solutions to your situation. 	Persons 65 years and older or under exceptional conditions, to be considered on a case-by-case basis.

Appendix 3

Types of intercultural context

Appendix 4

High fidelity simulation scenario template

HIGH FIDELITY SIMULATION

SIMULATION SCENARIO

Field of study			
Topic			
References, materials for classes			
Prerequisites	The student has knowledge of		
	The student has the skills		
SCENARIO NUMBER:			
SCENARIO TITLE:			
PLANNED TIME OF CLASSES	45 min		
DURATION OF THE SCENARIO e.g. 10 min e.g. 15 min e.g. 20 min	PREBRIEFING	SIMULATION	DEBRIEFING
SIMULATION ROOM	e.g. G200		
INTRODUCTION: e.g. The scenario is a simulation of a situation in which			
The scenario was prepared based on the content contained in the literature			
.....			

Simulation objectives:

Hard skills:

-
-
-

Soft skills:

-
-

Expected learning outcomes:

Knowledge:.....

Skills:.....

Social and intercultural competencies:.....

TECHNICAL AND ORGANIZATIONAL INFORMATION

Type of training equipment / phantom / simulator	
Simulator parameters (input, intervention, output)	
Reusable equipment	
Disposable equipment	
Optional accessories	
Necessary documentation	

Description of the scenario (information for the student) – e.g. Patient, Anna Brožek, 55 years old, operated in an emergency due to gastrointestinal obstruction. Postoperative diagnosis: removal of the sigmoid tumor using the Hartman method.
In the preoperative period, the patient came to the Emergency Room due to profuse vomiting for 3 days, green intestinal contents, increasing abdominal pain and stool retention for 4 days. On the ward, a patient prepared for emergency surgery. After the surgery, she was brought to the recovery room in the surgery department.
The scenario takes place in the recovery room of the surgery department.

Current clinical condition:
.....
(the teacher determines the patient's condition)

Interview:
.....
(description of what the student should learn from the patient)

PREBRIEFING

Introduce:

- scenario topic
- the procedure that will be practiced in the scenario
- prerequisites (what the student should know)
- learning outcomes to be realized
- get acquainted with the simulation environment (where the scenario takes place, which trainers, phantom will be used, how to use the equipment)
- what the division of tasks will be
- scenario execution time

.....
.....

IMPLEMENTATION OF THE SCENARIO (information for the teacher)

Description of the course of the scenario / structure of performed activities:

Describe in detail how the student / students should proceed;

.....

Identify critical activities

Additional information

Desirable behavior, communication, additional information should be described.

Description of simulator preparation:

Appearance

Initial simulator parameters (if applicable)

Simulator parameters changing during the course of the scenario in accordance with the predicted algorithm of the procedure or the structure of activities

DEBRIEFING – plan

Emotion phase:

- Remind the goals (student doing the exercise);
- Ask about the feeling during the exercise.

Fact phase:

- What happened – describe what happened step by step (student);
- What went well.

Analysis phase:

- Why specific decisions were made;
- How it should be done (ideas are generated by students, the tutor leads to the right conclusions);
- What to do to make it better;
- Students' questions;
- What do you remember from the exercise (each student says 1 item – preferably everyone should say something different).

What should happen (select 3–4 items here that should always be discussed with students regardless of whether they happened or not);

Point out step by step what the students' behavior should look like – exemplary;

Motivate students to think reflectively while discussing strengths and correct paths.

Summarizing phase:

(Demonstrate and summarize the importance of skills practiced and consolidated knowledge in nursing practice for improving the quality of care, patient safety ...)

Appendix 5

The Transcultural Nursing Assessment Guide according to Anderson et al., 2010	
1. Biocultural variations and cultural aspects of disease incidence:	
a) Some common diseases such as diabetes and cardiovascular disease occur more frequently in certain cultural groups	
b) Socioeconomic conditions may contribute to the incidence of disease	
c) There is increased resistance to specific diseases in certain cultural/ethnic groups	
2. Communication:	
a) Language:	
➤ Language spoken at home	
➤ Preferred language with the healthcare provider	
➤ Other languages spoken by the patient and their family members	
b) Selection of an interpreter:	
➤ Consider family and patient preferences	
➤ Culturally inappropriate interpreters may include members of the opposite sex, persons older or younger than the patient, members of a rival tribe, ethnic group, or nationality	
c) Rules and style of patient's communication	
d) Vary the techniques and style of communication to meet the patient's cultural background:	
➤ Pace and intensity of conversation	
➤ Eye contact may be culturally important or taboo	
➤ Sensitivity to certain taboo topics	
➤ Norms regarding confidentiality	
➤ Styles of nonverbal communication	
➤ The patient's and the family's feelings and views toward healthcare providers who do not share the same cultural or religious background	
3. Cultural affiliation:	
a) The patient's cultural affiliation	
b) Differences and similarities with other family members	
c) Country of origin	
4. Cultural sanctions and restrictions:	
a) Expressions of emotions, feelings, spirituality, religious beliefs	
b) Culturally defined expressions of modesty, male-female relationships	

c) Restrictions related to sexuality, exposure of various body parts, or certain types of surgeries
5. Developmental considerations:
a) Distinct growth patterns and characteristics vary by cultural background
b) Factors such as circumcision, growth rates, culturally accepted age for toilet training, duration of breastfeeding, gender differences, discipline, and socialisation into adult role
c) Beliefs and practices related to developmental events such as pregnancy, birth, and death
d) Cultural beliefs about aging and practices related to elderly care
6. Economics:
a) Primary earner and income level; other sources of income
b) Insurance coverage
c) Impact of economic status on lifestyle and living conditions
d) Patient's and family's experience with the healthcare system in terms of reimbursement, cost, and insurance coverage
7. Educational background:
a) Patient's highest level of education
b) Value of educational attainment
c) Impact of education level on patient's health literacy and health behaviours
d) Patient's preferred learning style: written materials, oral explanations, videos, and/or demonstrations
e) Patient's and family's preferences for intervention environment:
➤ Community venues such as churches and schools are conducive to open discussion
➤ demonstration, and reinforcement
➤ Home environment provides privacy, convenience, and personalised learning.
8. Health-related beliefs and practices:
a) Beliefs about causing illness and disease
➤ Divine wrath
➤ Imbalance between heat and cold
➤ Yin-Yang
➤ Punishment for moral transgressions, past behaviours
➤ Soul loss, hexes
➤ Pathogenic organisms
b) Beliefs about ideal body size and shape; concept of body image in relation to this ideal

c) The terms used by the patient to express health conditions, such as the way they express pain and discomfort.
d) Beliefs of the patient and family members regarding health promotion:
➤ Eating or avoiding certain foods
➤ Wearing amulets for good luck or to ward off evil (red earrings, bracelets, hats, etc.)
➤ Sleeping, resting, or napping for children
➤ Stress reduction techniques such as exercise, yoga, meditation, prayer, ancestral rituals
e) Patient's religious affiliation and involvement in religious practices and activities; similarities and differences in religious beliefs and practices between patient and family members
f) Reliance on cultural healers such as curanderos, shamans, spiritual advisors:
➤ Types of cultural healing practices used by the patient
➤ Patient and family members' perceptions of biomedical or scientific healthcare providers
g) Family's arrangements for patient's home care
h) Patient's and family's views of mental disorders
9. Kinship and social networks:
a) Patient's social network such as family, friends, peers, neighbours
b) Composition of a "typical" family compared to the composition of the patient's family
c) Role of family members and social networks during episodes of health and illness
d) Decision makers in the family who make decisions about health and healthcare
e) Involvement of family members in health promotion, e.g., lifestyle changes in diet and/or exercise
f) Involvement of family members in caregiving activities such as bathing, feeding, touching, being present when the patient is sick
g) Influence of cultural, ethnic, or religious organisations on patient's lifestyle and quality of life
h) Gender issues within cultural groups, such as adherence to traditional gender roles where women care for the household and children while men work outside the home and have the primary responsibility for decision-making
10. Nutrition:
a) Cultural influences on nutrition; meaning associated with eating or sharing meals for the patient and family

b) Eating disorders such as obesity, bulimia, anorexia, or lactose intolerance:
➤ Eating disorders of family members
➤ How the patient and family members view eating disorders
c) Overview of patient's and family's eating behaviours:
➤ The patient's definition of »eating«
➤ What is considered a »healthy« diet
➤ Consistency of beliefs with what the patient eats
d) Family members who purchase food and/or prepare meals
e) How family members are involved in dietary choices, values, and decisions about food
f) How foods are prepared at home
g) Nutritional practices of the patient and family members such as vegetarianism and abstinence from red meat or alcoholic beverages
h) Influence of religious beliefs on the patient's and family's diet:
➤ Religious observances or holidays that require abstinence or avoidance of certain foods, such as kosher diets, observance of Ramadan, fasting on certain occasions
➤ Observance of fasting practices within the family, periods of fasting, and exceptions to fasting
i) Home remedies or special foods used to treat illnesses
11. Religious affiliation:
a) The ways in which the patient's religious affiliation and religious beliefs influence health and illness
b) Special rites or ceremonies related to healing, recovery, illness, and/or death:
➤ Who performs the special religious ceremonies
➤ Preparations the nurse must make before performing these rituals
c) The role of religious representatives in health and illness
12. Values orientation:
a) Attitudes, values, and beliefs of the patient and family regarding health and illness
b) How attitudes, values, and beliefs influence behaviour related to health and illness
c) Stigmas associated with the patient's illness
d) Reactions of the patient and family to changes associated with illness or surgery
e) Views of the patient and family about biomedical healthcare
f) Other cultural views that may influence behaviour related to health and illness

Appendix 6

Lp.	Scenario topic	Setting	Culture-related issues	Competencies	Area
1	2	3	4	5	6
1	Assessing the level of hydration of a patient in home care	Home care	Religious culture Regional culture Economic status	I can recognise dehydration	Nutrition/ dehydration care and risk assessment
2	Providing guidance in nutrition regarding hydration	Home care	Religious culture Regional culture Economic status	I can implement individualised nutrition guidance regarding hydration	
3	Assessing the level of nutrition of a patient in home care	Home care	Religious culture Regional culture Economic status	I can recognise malnutrition	
4	Arranging patient-centred environment for terminal care	El- derly care home/ hospice	Religious culture Regional culture	I can arrange patient-centred environment for terminal care	End-of-life care
5	Assessing the signs of forthcoming death and implementing patient-centred, culturally appropriate end-of-life care	El- derly care home/ hospice	Religious culture Regional culture	I can assess the signs of forthcoming death I can implement individualised, culturally appropriate end-of-life care	
6	Communicating with the elderly person to build a trustful relationship	Home care	Religious culture Regional culture Sexuality Gender identity	I can communicate with the elderly person to build a trustful relationship	Safeguarding
7	Recognising factors leading to signs of abuse	Home care	Power distance Religious culture Regional culture Economic status Gender identity	I can recognise factors leading to signs of abuse	

1	2	3	4	5	6
8	Supporting the elderly person emotionally	Home care	Power distance Religious culture Regional culture Economic status Gender identity	I can support the elderly person emotionally	
9	Reporting and discussing situations regarding the elderly person within a multidisciplinary team	Hospital	Regional culture Gender identity Stereotypes and prejudices	I can report and discuss situations regarding the elderly person within a multidisciplinary team	Interprofessional cooperation
10	Educating the elderly person regarding the importance of self-care	Hospital, Home care	Power distance Religious culture Regional culture Economic status Stereotypes and prejudices	I can educate the elderly person regarding the importance of self-care	Supporting elderly persons' access to services and resources to enhance self-care
11	Evaluation of the effects of medicines on the older person	Hospital, Home care	Religious culture Regional culture Economic status	I can evaluate the effects of medicines with the older person	Implementation of medication for the older person
12	Identifying the side effects of medications in the older person	Hospital	Religious culture Regional culture Economic status	I can identify the side effects of medications in the older person	
13	Taking into account the effects of aging in the implementation of medication	Hospital	Religious culture Regional culture Economic status	I can take into account the effects of aging in the implementation of medication	
14	Identifying the symptoms of depression with the older person	Clinic	Religious culture Regional culture Economic status Stereotypes and prejudices	I can identify the symptoms of depression with the older person	Supporting the well-being of the older person's mind

1	2	3	4	5	6
	Recognizing the symptoms of anxiety of the older person			I can recognize the symptoms of anxiety of the older person	
15	Supporting the well-being of the older person's mind	Clinic	Religious culture Regional culture Economic status Stereotypes and prejudices	I can support the well-being of the older person's mind	
16	Taking into account the expectations of loved ones about the care of an older person	Clinic	Religious culture Regional culture Economic status Stereotypes and prejudices	I can take into account the expectations of loved ones about the care of an older person I can guide the older person through various methods of guidance	Responding to challenging situations
17	Working professionally in challenging situations with the older person and/or his/her loved one(s)	Clinic	Religious culture Regional culture Economic status Stereotypes and prejudices Power distance	I can work professionally in challenging situations with the older person and/or his/her loved one(s) I can guide the older person through various methods of guidance	
18	Supporting the meaning and relevance of an older person's life	Clinic	Religious culture Regional culture Economic status Stereotypes and prejudices	I know how to support the meaning and relevance of an older person's life	Supporting the functioning of the older person
19	Identifying the confusion of the older person for various reasons (for example, after surgery, due to infection)	Clinic	Economic status Stereotypes and prejudices	I can identify the confusion of the older person for various reasons (for example, after surgery, due to infection)	

1	2	3	4	5	6
20	Carrying out rehabilitative care of nursing	Clinic	Economic status Stereotypes and prejudices	I can carry out rehabilitative care of nursing	
21	Advising the older person on the factors that affect a safe home environment	Clinic	Religious culture Regional culture Economic status	I can advise the older person on the factors that affect a safe home environment I can provide a safe environment for the older person to move around	Implementation of a safe living environment for the older person
22	Guiding the older person in choosing safe shoes		Religious culture Economic status	I can guide the older person in choosing safe shoes	
23	Assessing the need for helping aids for the older person		Religious culture Regional culture Economic status	I can assess the need for helping aids for the older person	
24	Communicating with an older person appreciatively		Religious culture Regional culture Economic status Stereotypes and prejudices Power distance	I can communicate with an older person appreciatively I can take into account the life history of the older person in my activities	Appreciative encounter and interaction with older person
25	Taking into account the expression of the older person's own will in relation to treatment and everyday choices		Religious culture Regional culture Economic status Stereotypes and prejudices Power distance	I can take into account the expression of the older person's own will in relation to treatment and everyday choices	

1	2	3	4	5	6
26	Taking into account the life history of the older person in my activities	Home care	Religious culture Regional culture Economic status Stereotypes and prejudices	I can set aside enough time for the guidance of the older person I can take into account the life history of the older person in my activities	
27	Identifying changes in functional capacity related to aging	Clinic	Stereotypes and prejudices Economic status	I can identify changes in functional capacity related to aging	Supporting the functioning of the older person
28	Supporting the older person with impaired sensory functions	Clinic, home care	Religious culture Regional culture Economic status Stereotypes and prejudices	I can support the older person with impaired sensory functions	
29	Identifying the older person's reactions to changing situations (for example, aging and life changes)	Clinic, home care	Religious culture Regional culture Economic status Stereotypes and prejudices	I can identify the older person's reactions to changing situations (for example, aging and life changes)	
30	Recognizing the symptoms of memory disorders	Clinic	Economic status Stereotypes and prejudices Power distance	I can recognize the symptoms of memory disorders	

Appendix 7

Instructional design principles (after McLoughlin C. and Oliver R. (2000) Designing learning environments for cultural inclusivity: A case study of indigenous online learning at tertiary level. Australian Journal of Educational Technology 2000, 16(1), 58–72.

1. Adopt an epistemology that is consistent with, and supportive of constructivist learning and multiple perspectives. This form of emancipatory pedagogy ensures recognition of students' capacity to construct their own knowledge, bring prior experience and culturally preferred ways of learning.
2. Design authentic learning activities.
3. Create flexible tasks and tools for knowledge sharing.
4. Ensure different forms of support, within and outside the community.
5. Establish flexible and responsive student roles and responsibilities.
6. Provide communication tools and social interaction for learners to co-construct Knowledge.
7. Create tasks for self direction, ownership and collaboration.
8. Ensure flexible tutoring and mentoring roles that are responsive to learner needs.
9. Create access to varied resources to ensure multiple perspectives.
10. Provide flexibility in learning goals, outcomes and modes of assessment.

About the GNurseSIM Project and this publication

Globally, the number of people over the age of 60 is expected to more than double by 2050. Diseases associated with ageing are identified by the World Health Organization as being a major global health challenge that future healthcare providers must be prepared to meet. Simulation is a safe way to train healthcare providers to provide effective care for older people and their families. GNurseSIM supports higher education institutions to provide students in geriatric nursing with opportunities during their training, to practice skills of adopting a multidisciplinary holistic approach to the care of older patients.