 

WP 2.1. D6 Report on internship for nursing sciences development

Internship for master and PhD students and follow-up activities

* Report to respective ministries of KZ
1. **Description and evaluation of the internship program**

The internship for master and PhD students was carried out at JAMK University of Applied Sciences and Åbo Akademi university (ÅAU) in Finland, and Lithuanian University of Health Sciences (LSMU) in Lithuania. Two 7-week periods were realized during 2022 and 2023. Since appropriate English language skills were required for the internship, which many master students lacked, PhD students were also allowed to participate in the internship. Totally, 9 master students and 8 PhD students from AMU, KNMU, KMU, and SKMA participated in the internship.

The arrangements for internship at University Medical Center Utrecht (UMCU) in Netherland was postponed and changed from two periods with one student to one internship period for two students. The period was planned to be realized at UMCU during autumn 2023. Unfortunately, deviated from the plan, no students from KNMU accepted internship participation at UMCU due to financial issues. The students from KNMU considered that the internship budget was not sufficient for comfortable staying at an European University for 56 days, and they could not found additional sources of financing. Therefore, no internship at UMCU was realized. Instead, two master students from KMU participated in a shorter internship at LSMU during 23.10-7.11.2023.

The internship program was developed based on the AccelEd project aims for this work package and the possibilities available at each EU university, and when possible, on the learning outcomes set by each student before their internship period. The internship program included, for example, familiarizing with the education systems for nurses, teaching methods, organization of the universities, research projects in health care, and health care systems in the hosting EU country. In the evaluation of the internship period, most of the students evaluated their internship as excellent (63-75% of the participants) (Table 1). They were satisfied with the entirety of the internship programmes at the different EU universities. Overall, they especially emphasized meeting and discussing with the academic staff and nursing professionals, familiarizing with teaching methods, the friendly staff at the universities, support from the mentors at the universities, and to familiarize with another culture. The internship participants will use the skills and knowledge learned in teaching activities, in conducting own studies and dissertation, and in research.

Table 1. The students’ evaluation of internship

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **1 Very Poor** | **2 Poor** | **3 Satisfactory** | **4 Good** | **5 Excellent** | **Average** | **Median** |
| The content of the programme was | 0,0% | 0,0% | 0,0% | 37,5% | 62,5% | 4,6 | 5,0 |
| Skills and knowledge of the experts were | 0,0% | 0,0% | 12,5% | 25,0% | 62,5% | 4,5 | 5,0 |
| Methods used by experts supported reaching the outcomes | 0,0% | 0,0% | 12,5% | 25,0% | 62,5% | 4,5 | 5,0 |
| Adequacy of supporting materials | 0,0% | 0,0% | 0,0% | 37,5% | 62,5% | 4,6 | 5,0 |
| The contents helped me reach the outcomes | 0,0% | 0,0% | 12,5% | 12,5% | 75,0% | 4,6 | 5,0 |
| The applicability of the contents was | 0,0% | 0,0% | 0,0% | 37,5% | 62,5% | 4,6 | 5,0 |
| The outcomes were fulfilled | 0,0% | 0,0% | 0,0% | 37,5% | 62,5% | 4,6 | 5,0 |

1. **The aims and learning outcomes for the internship**

The AccelEd project aims for the internship were to increase the interest of master students in developing competences for further PhD studies and teaching of nursing science in KZ. Additionally, the students set their own learning outcomes before they arrived at their host EU university.

The students had set various learning outcomes before the internship period. Their set learning outcomes were mainly to:

* exchange experience
* familiarize with and gain knowledge of different teaching methods in nursing
* improve competencies in pedagogical activities of nursing
* participate and assist teachers in lectures and seminars
* participate in masters and PhD seminars
* participate and observe supervising sessions
* improve knowledge about nursing training systems at all stages
* improve competencies in research and scientific activities such as methodological and analytical skills in both quantitative and qualitative methods, as well as how to clearly and effectively communicate research
* improve knowledge in the topic of the internship student’s own thesis
* collect data for own research
* prepare a manuscript for publication in an academic journal
* to search for scientific literature and improve skills in search strategy in scientific databases
* participate in and observe research project activities
* visit local healthcare organisations, and health care organisations that have ongoing research and development projects
* familiarize with the methodological recommendations for nurses’ work with patients
* participate in, observe and assist researchers in network meeting inside and outside the university
* collaborate with students at the university and student unions
* gain opportunities to build future collaborative networks for research
1. **Learning outcomes from participating in educational activities**

The internship students participated in lectures (offline and online), course seminars, master thesis seminars, and practical classes for nursing students, as well as in counselling sessions with master and PhD students and their supervisors. They appreciated the opportunity to participate in theoretical and practical lectures, and exams for bachelor and master students. The internship students emphasized improved knowledge and skills in teaching methods, how exams are accomplished, assessing students’ assignments, giving feedback to students, and in writing an academic thesis. They appreciated seeing modern learning environment such as simulation rooms for training different medical situations, and dummies to practice care on. Furthermore, they appreciated familiarizing with digital learning methods, and use of Moodle platform for all the processes in a course, such as information about the course and course material, and communication with teachers. They also appreciated that students often had opportunity to participate in lectures through Zoom if they live far away from the university. The internship students also gained knowledge about the education system and the EU universities’ organisation, missions, and visions.

The internship students also emphasised the active participation of the students in courses and lectures, both in group work and individual tasks, and the continuous dialogue and friendly atmosphere between the teachers and students. They highlighted activities facilitating students’ development of critical, analytical, and systematic thinking to independently draw conclusions and solve complex problems. Working in groups taught the internship students to listen to colleagues, be tolerant to others’ opinions and to be able to defend own opinion.

Furthermore, the students learned about care management for specific patients with specific diagnosis. They also gained knowledge about how to choose and publish in an international scientific journal.

The learning from participating in research and project activities also added knowledge to include in their own teaching (see heading 4).

1. **Learning outcomes from participating in research and project activities**

The internship students participated in project and research meetings within the host EU university, and in meetings with collaborate research staff outside the university. Some of the students had the opportunity to participate in meetings with collaborative research staff from universities in other countries. The students were introduced to several different scientific and development research projects, for example about healthy ageing, health of adolescents, health literacy, occupational health, rehabilitation, educational material, welfare technology, digital health, and gaming.

The students expressed several different learning experiences according to the research and project activities. They improved their knowledge and skills in

* research design and how to conduct scientific research in nursing
* quantitative and qualitative research methods
* applications of different research methods
* justification of research problems and how to write research questions
* different sampling methods
* data collection methods
* use of the academic libraries to conduct scientific literature search in international evidence-based data bases
* to conduct a literature review for research
* work on publication of a research article
* research ethics approval and ethics guidelines
* data management plan (dmp)
* applying for project grant outside universities
* how to accomplish own research

Some of master students had an opportunity to be involved in research projects in the universities, for which they were grateful. Even though all internship students did not participate in a project, many students learned about literature search in databases, writing a scientific article and the article review process.

From participation in research and project activities, the internship students also expressed development in own ability to communicate with an audience, perform a presentation at conference, and an increased sense of responsibility for assigned tasks.

1. **Learning outcomes from networking and collaboration with regional health care sector**

The internship students visited and familiarized with the practical work at different wards and clinics. They visited community health care providers, and some private providers, such as hospitals, health care centres, university clinics, elderly care wards, rehabilitation clinics, and third sector healthcare and welfare organisations. The students visited clinics of neurosurgery, obstetrics, gynaecology, paediatrics, endocrinology, cardiology, traumatology, intensive care, oncology, and palliative wards. Some also visited the hospital patient safety ward and learned about the security strategy of clients/patients and the safety culture, including how to collect information of factors and causes of errors in care and near misses to avoid future mistakes.

The internship students learned about the practical work in the organisations and were discussing/networking with different health care staff at several levels. They highlighted learning about nurses’ practical work, their responsibilities, and qualifications, how nurses’ work is organised, the relations between nurses and patients/clients, equipment in wards, and modern methods of diagnosing and treatments. Furthermore, they learned about the organisation and system of health care in the host EU countries, as well as the quality of nursing care. The internship students also learned about current problems in health care systems, how to solve real problems by using design thinking involving the public, and how to present good ideas to an evaluation committee.

1. **Reflections on the benefits of the internship period in relation to students’ own career development**

After graduating, master students are planning to work at university and apply all gained skills, teaching and research methods and approaches during the educational process. They are also planning to enter PhD programme in Nursing science and continue to study with accumulated experience, ideas on research and thesis topics. As well as master students pointed out that with gained knowledge and skills, they will be well-prepared for entering PhD programme.

Doctoral students got new ideas for teaching activities, which they share with colleagues.

After completing doctoral studies, participants plan to teach about conducting nursing research.

Participants point out that the internship at leading European universities gave opportunity to increase competitiveness and the value of personal professional portfolio (CV), which will lead to career growth.

Participants emphasized that the internship not only gives first-hand experience in the real working world, but also allows students to clearly understand the career trajectory for the desired position.

1. **Reflections on follow-up activities regarding the development of education and research in nursing science in Kazakhstan**

Internships gave opportunities to build future collaborative networks for research and consolidating the achieved results of all partners in Kazakhstan and beyond. Established networks will lead to even greater discoveries and innovations, and possible changes in the legislation of the country in relation to nursing science. It is necessary to keep organizing joint meetings, round tables, conferences for the exchange of experience and discussion of topical issues. The students also increased their understanding of the status of nursing.

The internship students also emphasized that nowadays research in the field of nursing in Kazakhstan is mainly based on master's theses. Currently, there is a growing interest and enthusiasm for collecting information and conducting research in the field of nursing at medical universities, higher medical colleges, as well as in clinical practice. Participants of internship stressed out adoption of international standards.

Participants also stressed out about importance of implementing approach of working and doing research in the same hospital, in order to study and solve the problems in nursing and needs of medical organizations in Kazakhstan. For the quality of nursing research, it is important that the research topics are relevant and based on the problems of practical nursing.

Internship participants highlighted that the results of the project are already visible today, upon completion of the project, significant changes are expected in nursing and the development of nursing research in the higher education system. Besides, in Kazakhstan, over the past few years, a system of collaboration and mentoring in clinical practice has been well developed. New terms and practice of conducting work have appeared, such as: a nurse with the level of applied and academic bachelor's degree, independent admission of nurses, a health school. As a result, nurses have developed communication skills for problem patients. Nurses began to analyse, collect data, and adjust care for the individual patient, as well as expanding the horizons of nursing research. Nurses began to make systematic reviews of the care of different patients. The students also gained knowledge of rehabilitation which is an increasing field in Kazakhstan.

In educational system participants emphasized the importance of starting with a list of competencies and clinical interests that will allow students to approach the subject with a full understanding. Also, some of participants point out starting educational work not only among students and patients, but also among the population.

There were also opinions about importance of introducing the methodology of “free/independent” education in Kazakhstan. When the student is not afraid of the teacher, and the teacher recognizes the student as an equal specialist. As a result, this will engage students openly to ask questions and have a dialogue with the teacher without fear of giving the wrong answer.

Participants analyzed the possibilities, benefits and drawbacks, as well as ethical issues of using the Chat GPT - new artificial intelligence tool in the academic field in Kazakhstan by conducting critical analysis during the internship.

Also, ideas were put forward to develop autonomy and independence in nursing work. In order for the nurse in Kazakhstan to work autonomously and for the healthcare system to see and monitor the work of the nurse, it is necessary to develop and implement a tariff classifier of nursing services and classification of nursing interventions based on international practice, like classification of nursing diagnoses (NANDA), classification of nursing interventions (NIC) and classification of nursing outcomes (NOC). Just like doctors, nurses should also have their own electronic signature and an official form of nursing documentation. These four aspects are essential for independent nursing work. It is also necessary to find out whether there are barriers on the part of doctors, patients and nurses themselves to the implementation of independent nursing work.

1. **Reflections on further collaboration possibilities within and outside Kazakhstan**

The students highlighted that one of the important priorities for the development of nursing in Kazakhstan is the continuous communication of project participants. They understand the importance of maintaining cooperation to solve joint problems in nursing. Students stressed the importance of participation in joint projects in the future.

Participation in this internship has expanded networking, which will allow participants to collaborate in various projects to develop nursing care in Kazakhstan. As an example, students shared the opinion on opening geriatric centers, that specialize specifically with the old contingent of the population. It also would be good to develop a project regarding nurse practitioners. This project will help nurse practitioners to engage in scientific activities. Since nurse practitioners know everything about patient care. If nurse practitioners start doing scientific work, patient care would be more effective. Not only masters and PhD students should be engaged in nursing science, but also nurses with a bachelor's degree.

1. **Feedback regarding the internship activities and support from the mentor at the university**

Participants highlighted that goals of the internship were fully reached. Internship was full of pedagogical, practical, scientific activities. They pointed out that they received valuable knowledge and experience for the further professional development.

Internship included a lot of experienced professors, mentors who helped and coordinated them all this time. During the internship each students appreciated continuous support provided by mentors. Weekly meetings with the mentor were organized for consultation and discussion of the results achieved during the week. Each student had opportunity to work individually on their research work in order to reach learning outcomes of internship.

Each student emphasized that thanks to the intensive internship program, they were able to achieve good results in writing articles and thesis, improving the quality and methods of teaching, conducting research and nursing care.

Although, the internship for two students during autumn 2023 was a shorter period of two weeks, the participants perceived that it gave valuable experience, and shorter periods can therefore also be recommended.

1. **Additional important learning experiences**

The internship students also familiarized with master and PhD students at the universities and with the student union at the university. They learned about the vision and mission of the student unions, which is to bring the students together and build relations.

The students also highlighted a personal growth and development as a result from the internship and getting to know another culture. They got life experience through adapting to new and different situations, and new friends. Furthermore, they increased their overall self-confidence.

1. **Suggestions for improvements regarding internship periods**

Improvement suggestions from the internship participants were to include more visits to health care clinics and more meetings with practicing nurses in the program. Furthermore, they suggested that all costs for the internship should be covered by the project. The internship period of seven weeks was also perceived too long by one participant.