

EDUCATING VACCINATION COMPETENCE PROJECT (EDUVAC)

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Abstract

Vaccinating is one of the most cost-effective preventive health care innovations. It requires special education and vaccination professionals (public health nursing, nurses, health visitors, midwives, etc.) should be competent and qualified professionals to provide high quality care and it should be safe and cost-effective. Five EU HEIs partners sharing the same goals and needs in vaccination education among their students: Metropolia University of Applied Sciences (Metropolia), Finland; University of West Attica (UNIWA), Greece; University of Modena and Reggio Emilia (UNIMORE), Italy; University of Trnava, Slovakia; University of Vic – Central University of Catalonia (UVic-UCC), Spain; are working in the project with the aim to improve knowledge and skills of students in vaccinating; internationalize strategy by the mobility of staff and student; develop and implement a web-based course (3ECTS) and an Intensive Course (2 ECTS) for vaccination for international use. The participants of the project are students who are studying nursing, community health, public health nursing, midwifery and public health in the five HEIs partners. The duration of the project is 36 months (from September 2018 until August 2021). The web-based course will take place three times and the Intensive Course will take place two times. Evaluation and analysis of the project will take place and results will be disseminated. The potential long-term benefit of the EDUVAC project is to promote the health of the population in the countries by increasing the vaccination coverage and promote vaccinations through improving skills among health professionals.

Keywords: vaccination, health, learning, health professionals, promotion of health.

1 INTRODUCTION

Immunization benefits all people, not only improving health and life expectancy, but also reducing economic and social costs both locally and globally. Immunization prevents diseases, disabilities and deaths from diseases preventable by vaccination. Global vaccination coverage remains at 85%, with no significant changes in recent years. An additional 1.5 million deaths could be prevented if immunization coverage improves. It is estimated that 19.9 million children under the age of one year did not receive the DTP3 vaccine [1].

Underutilization and rejection of vaccines is increasing. An important factor that determines the attitudes of parents regarding vaccination is the interactions with health professionals. If it is effective, it can address parents' concerns about vaccines and motivate an undecided parent to accept the vaccine. Poor communication and counselling can contribute to rejection of vaccines or dissatisfaction with care [2].

A systematic review found evidence of low to moderate certainty, suggesting that face-to-face interventions to inform or educate parents about childhood vaccination can improve children's vaccination status, improve parental knowledge or understanding about vaccination, and may slightly increase the intention to vaccinate [3].

Communication about immunization is complex. While vaccination programmes are successful in preventing diseases, communicating the benefits of immunization and addressing concerns about issues such as vaccine safety and adverse events following vaccination remains a challenge [3].

Transparency and trust are key in any communication and counselling activity to ensure that immunization information reaches the population and the advice given is followed. As an important part of communicating about vaccines, scientific evidence about their benefits and safety should be available both to formulate appropriate policies and for the population in order to make well-informed decisions. In this context, the role of health professionals is key, since research shows that they are perceived by the population as a reliable source of information. When communication activities on immunization are developed, it is important to involve health professionals to support patients with adequate information and to address any questions and possible patient concerns. Therefore, health professionals should be able to administrate, communicate and provide counselling to different target and cultural populations [4].

Health communication research is a valuable tool for an evidence-based approach when developing communication and counselling initiatives. It can offer insights into issues such as the public's information-seeking behaviours, which information sources are most trusted, and which are the attitudes, perceptions and behaviours of the specific audiences that can influence how they receive and process information on immunization [5].

Vaccinating is globally one of the most cost-effective preventive health care innovations and it should be safe. It requires special education in professionals (public health, nurses, health visitors, midwives, etc.) that should be competent and qualified professionals to provide high quality care permitting to increase coverage through good practices, communication and counselling [6].

Overall objective:

- To promote the health of the population in the countries of the partner institutions by increasing the vaccination coverage.

Specific objectives:

- Develop and implement a web-based course (3ECTS).
- Develop and implement an Intensive Course (2 ECTS).
- Improve knowledge and skills of students in vaccinating.
- Internationalize strategy by the mobility of staff and student.

2 METHODOLOGY

Five European Union (EU) of Higher Education Institutions (HEIs) are participating in developing the Education Vaccination Competence Project (EDUVAC): Metropolia University of Applied Sciences (Metropolia), Finland; University of West Attica (UNIWA) coordinator of the project, Greece; University of Modena and Reggio Emilia (UNIMORE), Italy; University of Trnava, Slovakia; University of Vic – Central University of Catalonia (UVic-UCC), Spain.

Participants of the project are students who are studying nursing, community health, public health nursing, midwifery, public health in the five HEIs partners.

2.1 Web-based course

The Web-Based study programme is called “EDUVAC Vaccination Competence”. The content will be 3 ECTS in total. Teachers from the five HEIs involved work collaboratively for producing the online materials.

The main learning material: 1) Vaccination background: Why is vaccinating is important? What is immunization? Who is vaccinator? Vaccination programmes in different countries. Vaccination coverage in different countries. 2) Vaccination procedure. 3) Counselling the clients of different age groups and clients from different cultural backgrounds. 4) Vaccinating refugees, migrants and asylum seekers. 5) Vaccinating travellers and people on the move. 6) Anti-vaccination groups and people who hesitate to take vaccines.

The Web-Based course will take place three times (Spring 2019, autumn 2019 and spring 2020).

Additional online material will be developed 1) Digital guides for teachers: which includes the basic information about the content, instructions for teachers, roles and responsibilities of tutorials. 2) Digital guide for students: which includes the basic information about the digital learning environment (Moodle platform) and the content of the course and other practical instructions for students.

Each course will be tested by the students through questionnaires online before and after its implementation. The student knowledges will be obtained from different assignments such as individual tests/evaluations and case studies. Student's data will be collected from 30 students per University in three times (n = 450).

In terms of students learning outcomes, at the completion of the Web-Based Course students will: Have knowledge on vaccines and immunization in regard to immune systems, development of and the way the vaccines work, vaccines preventable diseases and population health; Have knowledge on ethical and cultural issues; Have knowledge on evidence-based practice on vaccination; Be aware of different vaccination schedules and be able to find the different schedules targeting different populations target groups; Be able to communicate and provide consultation to different populations by applying all the theoretical background knowledge obtained; Be able to administrate vaccinations to different populations; Have knowledge and be able to identify and manage adverse effects.

2.2 Intensive Courses

The project plans to organize two Intensive Courses. The course is credited with 2 ECTS.

The first Intensive Course will take place in Finland in spring 2019 and the second in Spain in spring 2020.

Each course will be coordinated by the University of Modena and Reggio Emilia (UNIMORE) and the host university (Metropolia University of Applied Sciences and UVic-UCC) respectively. The length of the intensive Course will be five days. Each HEI will recruit eight students to each course, in total 40 students. Students are preferable, 2nd or 3rd year students from the degree programmes in public health, public health nursing, nursing, midwifery and community health programmes.

The selection criteria for the students to attend the course are: 1) Studies have progressed in accordance with the personal study plan. 2) The student must have sufficient knowledge of the English, spoken and written language. 3) The student has the appropriate personal and social attitude, since each student is a representative of his own institution and country. 4) Letter of motivation. Lecturers from the five HEIs involved work collaboratively for producing the materials for the Intensive Courses.

Each HEI will select two lecturers, who will join the Intensive Course as tutoring teachers. The participating lecturers act as local tutors to the students in the home institutions and prepare them for the short-term exchange. There will be a pre-assignment, in where students find data about the current situation about vaccination in the home country. Each group of students prepares a presentation of their own National Immunization Programme. The presentation includes: Mandatory or recommended vaccinations related to the age; Recommendations for specific groups; Vaccinations funded/not funded by the National Health System; Management of vaccination programmes. The presentation by the students: in power point presentation, video, verbal discussion, etc. should last no more than 15 minutes (including discussion). The presentations of the pre-assignments will be on the first day of the Intensive Course. Students should also prepare a short presentation or activity about their own country and culture (for example singing, playing music, party game, poems, food, sweets etc.), which will be presented during the cultural evening. The purpose of the cultural evening is to get to know each other, and to learn about different cultures.

During the Intensive Courses, students work in multicultural student groups and prepare the assignments of their groups, and each student group is supported by the tutor teacher. The activities during the Intensive Course include the following: presentations of students, group works, study visits, workshops, simulations, interactive games, lectures and discussions. To get the assessment, each student has to actively take part in the course. Through workshops and assignments, students will have to demonstrate that learning outcomes are fulfilled.

Each course will be tested by the students through questionnaires online before and after its implementation. Student's data will be collected from eight students per University in two times (n = 80).

In terms of students learning outcomes, at the completion of the Intensive Courses students will: Have knowledge on vaccines and immunization; Are able to consider ethical and cultural issues; Have knowledge on evidence-based practice on vaccination; Are aware of different vaccination schedules and are able to find the different schedules targeting different population target groups; Are able to

communicate and provide counseling to different populations by applying all the theoretical background knowledge obtained; Are able to administer vaccinations to different populations in theory.

3 DATA ANALYSIS

The data will be collected through online questionnaires for the two courses (Web-based Course and Intensive Courses) and analysed. The members of the University of Trnava will do a statistical analysis of the data and the realization of qualitative content analysis will be carried out by the University of West Attica and the Metropolia University of Applied Sciences. Statistical analysis will be performed using SPSS in order to analyse quantitative data, and content analysis will be used for the qualitative data.

4 ETHICAL ISSUES

The project has been approved by the Director of Research Department of the Metropolia University of Applied Sciences, the Ethics Committee of the University of Vic – Central University of Catalonia (UVic-UCC), and the University of West Attica rectors' committee (acting as ethics committee).

Participation in the questionnaires will be voluntary. The data will be stored safely and will be destroyed when the EDUVAC project has finished. The data will be treated in the way that identities or opinions of each subject cannot be identified in a written report. During all phases of the study ethical principles of research will be followed.

The participant's information sheet (consent sheet) will provide the participants the information about the uses, methods, benefits and dissemination of the project, and its anonym participation. Participants of the study will be informed and sign the informative consent.

5 INNOVATION PROJECT

The EDUVAC project is innovative, because it will be the first international web-based and intensive course of vaccination competence in English for public health nursing and midwifery students, among others. The EDUVAC programme will benefit future health professionals who are responsible for vaccinating, increasing their vaccination competences, according to national rules.

6 RESULTS

The first educational report will be made after the first online course and the first intensive course. The second educational report will be made from the second and third courses online and the second intensive course.

Results obtained by the students will permit the improvement of the courses. New ideas and innovations will be added to the courses. Students who have participated in the Intensive Courses, gain experiences and improve their English language skills. Student's final grade will indicate if the level of knowledge has been reached. As a result of the project, participating students have gained competences in knowledge, skills and attitudes in vaccinating and counselling clients of different age groups and their families. The gained competences in vaccinating clients prepare the students for their future jobs.

The information about the course, results and activities will be disseminated in the participating institutions, in the web-pages, the electronic newsletters, etc. The main target group for dissemination is the teaching staff of health care programmes, and in conferences, oral and posters presentations on national, European and international level.

The study material developed from the digital content of the web-based course and the content of the Intensive Courses will be available online through the websites of the HEIs partners.

All partners will be responsible for updating the content while using them in their study plans and also make them available to others.

Others will be allowed to translate them under the Creative Commons licenses that will be indicated. The use of the material will not be limited; but will only be allowed for non-commercial use.

Published educational reports and conference presentations will allow others to know the results of the projects and their availability.

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