ABSTRACT — Introduction: The university study programme of nursing in Slovakia is fully compatible with the Directives of the European Commission (EC) and European Strategy of the World Health Organization for education of regulated professions. Nurse have applied and used autonomy in practice, decision-making and planning of nursing interventions.

Objective: The aim of article is to present the nursing study programme (structure of programme) and credit system at universities in Slovakia according to applicable nurses competencies.

Methodology: The methodology for this article was used literature review, legislative standards of the Slovak Republic and European Union, the Accreditation document of the Faculty of Health Care of University of Prešov and review of studies in science databases: EBSCO, Medline, ProQuest.

Results and discussion: The main topics of core knowledge of the 1st degree of university studies are based primarily on the theory and practice of nursing. The study programme is divided into academic subjects. The standard student workload for one academic year is total 60 credits in full-time study, for three years of standard study it is 180 ECTS.

Conclusion: Competence of nurse is the state of having the knowledge, skills, energy, experience and motivation required to respond adequately to the demands of one’s professional responsibility.

INTRODUCTION

Nursing is a field of study in the system of study programmes, administered by the Ministry of Education, Science, Research and Sports of the Slovak Republic through which the graduate of the study programme gains the professional ability/qualification to practice the profession or is prepared to continue in following university studies. The profile of studies is harmonized with the criteria of the European directives, enhanced by the adoption of the Declaration of Munich and implemented into the curriculum of educational institutions that provide this training. Study programme of nursing is compiled according to competencies of the Directive 2013/55/EU and in the context of the National Reference Framework, Decree of the Government of the Slovak Republic No. 296/2010 on professional qualification for performance of health service occupation, the method of further education of health professionals, system of specialized fields and system of certified working activities, Decree of the Ministry of Health of the Slovak Republic No. 364/2005 Coll. which determines the scope of nursing and midwifery practice provided by nurses and by midwives independently and in conjunction with a doctor [1,2]. The structure of nursing study programme and its credit system at universities in Slovakia are presented topics of article.

The Bologna Declaration (1999) is binding also for studying nursing at Slovak universities. Highlights the need for: nursing education designed so as to be compatible in content, scope and conditions of admission and graduation with developed countries; to meet European standards of education; curriculum designed so as to be oriented not only to the sick, but also in healthy individuals [3]; systematically lead to a change in medical preview of nursing to nursing thinking, thinking caring change to nursing; strengthen and highlight the formal component of education, strengthen communicative and creative skills, critical thinking and create abilities to solve problems; not only prepare nurses to practice nursing, but also to research, education and management and prepare nurses for taking an active role of nursing in primary care [4]. Nurses using autonomy in practice, decision-making and planning of nursing
interventions. Nurses are sufficiently informed about the new developments of science and technology as well as new nursing procedures and to work based on principles Evidence Based Practice (EBP) and Evidence Based Nursing (EBN) [5]

OBJECTIVE

Individual levels of university studies in the study programme of nursing in Slovakia are based on theoretical and practical knowledge of current science, development of independent practical and theoretical abilities and skills of the graduate, as per Act of the National Council of the Slovak Republic No. 578/2004 Coll. on health care providers, health service personnel, professional organizations in health service and on amendments to certain acts [6]. Pursuant to Act No. 131/2002 Coll. on Higher Education the professionally oriented bachelor study programmes of the 1st degree of university study are focused on acquirement of theoretical and practical knowledge in case of occupation performance based on a current state of science and art with the possibility to continue in university study of the 2nd degree. The successful graduates of the 1st degree of university study are awarded Bachelor degree. Clause 1 §53 of the same Act quotes that the study programme of the 2nd degree is focused on acquirement of theoretical and practical knowledge based on the current state of science, technology or art and on development of management skills of their creative application in case of occupation performance or when continuing in university study according to doctoral study programme of the 3rd degree [3,7].

The specific objective of this article is to present a study programme in nursing in Slovak Republic, describe its accredited study programmes, characteristics of the study programme, the credit system, the graduate profile and criteria for achieving credits by students, which is implement the current European requirements of education in nursing of the Western Balkan countries.

METHODOLOGY

The methodology for this article was used literature review, legislative standards of the Slovak Republic and European Union, the Accreditation document of the Faculty of Health Care of University of Prešov and review of studies in science databases: EBSCO, Medline, ProQuest.

RESULTS AND DISCUSSION

Scope of knowledge of graduate of nursing (1st degree)

Theoretical knowledge include: has a theoretical command of and practically use professional nursing terminology; gains and understand basic facts, concepts, principles and theory of nursing; has a theoretical command of and use the method of the nursing process in nursing practice; is able to integrate knowledge from theory and models in nursing and use them in nursing practice; is able to implement change, accept risk, take responsibility, improvise in unavoidable situations; gains knowledge in the field of communication, management, social and behavioural disciplines which are applied in contact with the patient/client.

Practical abilities and skills: in performing the nursing practice provides nursing care in accordance with legal regulations, within the scope of studies and using professional experience of gained knowledge and skills; applies nursing models in practice; works with nursing documentation; forms and shapes the standards of nursing care; monitors nursing problems and provides individualized nursing care using the method of nursing process in collaboration with the client, family, supporting persons; communicates within the health care team with the client, family, group and community; introduces new technologies and procedures in clinical practice within nursing; analyses problems and makes decisions in partnership with the client to optimize the patient’s medical condition; provides qualified first aid in trauma and life-threatening conditions, in mass casualties, and attacks using weapons of mass destruction; makes use of computer and information technology [2]. Additional knowledge, skills and abilities: cooperate and coordinate teamwork; organize their own learning and to continue their own professional development; speak foreign languages; maintain contact with the development of science and knowledge; participate in ethical decision-making and apply ethical principles in nursing practice; use knowledge of psychology and pedagogy in education of clients and in training new members of the nursing team. Professional qualifications is determined: Decree of the Government of the Slovak Republic No. 156/2002 Coll. on the professional qualifications of health professionals; together 4 600 hours total (contact and non-contact hours) education of which 60% in practical education; Decree of the Government of the Slovak Republic No. 296/2010 Coll. on professional qualification for performance of health service occupation, the method of further education of health professionals, system of specialized fields and system of certified working activities.

The academic courses of study programme in nursing

The study programme is divided into academic courses. The academic course is formed from a study programme unit or a group of units intended to provide training in the designated area (lecture, workshop or seminar). Each course is defined by a code
and a name. Information on the nature of the course, teachers, credits and hourly duration, the conditions of its completion and evaluation of learning outcomes, contents and recommended literature is stated in the course information sheet. The teacher is responsible for updating the data in the course information sheet at the beginning of the academic year.

According to European Directives 2005/36/EC, 2013/55/EU and Decree of the Government of the Slovak Republic No. 614/2002 Coll. on the credit system, the minimum requirements for the content of nursing education in Slovakia are divided into two sections: theoretical disciplines (nursing disciplines, basic medicine disciplines and social science disciplines) and practical disciplines. Courses of the nursing programme are divided into: compulsory (comprise 75-80% of study programme), compulsory optional (comprise 15-20% of study programme), and optional (comprise 5% of study programme) [3,8,9].

Depending on prior requirements for taking courses included in the academic programme, they are divided into courses conditional on the successful completion of other courses, the prerequisite or the other courses and courses without prerequisites. The recommended study plan, drawn up on the basis of the courses of the field study, defines the list of compulsory and compulsory optional courses and the recommended scope of optional courses, their credits and the number of hours recommended for learning. The state exam shall be considered a course with a defined number of hours. The study plan is created in the framework of defined regulations in conjunction with the academic advisor/department [9,10].

The student is obliged to gain, in the study programme, the required number of credits for which the distribution and total number of semesters is determined by the accreditation file. The standard student workload for one academic year is total 60 credits in full-time study, for three years of standard study it is 180 ECTS (European Credit Transfer System). Each course in the study programme is evaluated by the number of credits which reflect a quantitative measure of student workload in the study of the course. A particular course has the same credit evaluation for all students. A student may gain credits for a course only once during the course of their studies: theoretical courses (lectures, seminars and practicals) are converted to credits based on student workload: 1 ECTS = 25 hours workload on the student and practical training (clinical training, clinical practice, continuous clinical practice, and summer clinical practice) is converted based on student workload: 1 ECTS = 30 hours workload on the student. As per Act of the National Council of the Slovak Republic No. 455/2012 amending and supplementing Law No. 131/2002 Coll. on universities and on amendments certain acts as amended Coll. the full-time study, form the point of view of time corresponds to student work of 1500–1800 hours per academic year, known as the workload on the student. It consists of contact hours (e.g. attendance at lectures, seminars, clinical practice) and non-contact hours (e.g. self-study and independent creative activities) [7,11]. The student must fulfil the requirements to gain credits from a course in the following manners: completed (C), continuous assessment (CA), examination (X) or a state exam (SX). The workload on the student also vary in terms of the final assessment. Training activities can be performed: by attendance, distance learning or by combined method [11].

Assessment of student learning is a key issue for students, those who teach and those who are responsible for the design, accreditation, quality assurance and review of courses. Brown et al. assert that: “Assessment defines what students regard as important, how they spend their time and how they come to see themselves as students and then as graduates” [23]. Research in learning and teaching in higher education has demonstrated the profound impact of assessment method upon depth of study. Other authors showed how the use of tests and multiple-choice questions promoted reproductive styles of learning, whereas projects and open-ended assessment promoted independence and deeper strategies of understanding. In the recent past, there has been a dramatic shift in the procedures and methods of assessment in higher education. One of the driving forces behind the shift has been the renewed emphasis on and the current interest in the professional preparation, development and accreditation of university teachers [24].

Methodology for theoretical education in study programme nursing include: research papers focus on student comprehension, ability to understand material, projects are an exceptional method to assess student’s creation or innovation abilities. Other methods are case studies, seminars, reviews, quizzes, online assessment, essays and other.

Examples of students workload

A workshop is a form of educational activity, whereby instructor/assistant prepares a topic, objective and programme. The student, through various techniques (brainstorming, feedback) and by using their own knowledge and experience, acquires skills that will be used in practice.

During the workshop the instructor/assistant organizes, supervises and helps students with the course. The workshop is meant to deepen already acquired knowledge and skills. The output of the workshop is to fulfil the conditions of the specified topic and objective. The workshop does not have a theoretical component, it is assumed that the student has a theoretical basis and is able to transfer theoretical knowledge into practical skills and it therefore calls for active cooperation among the participants of the workshop. A workshop can be prepared on the basis of various

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scientific or professional topics. It is recommended to be prepared for approximately 60 min. (one topic) with an optimal number of 25 participants [12]. Workload on the student: preparation and realization of a workshop on a professional topic (15 hours of student work); preparation and realization of a workshop on a scientific topic (30 hours of student work) [13]. We describe approaches to coursework assessment in Table 1.

Nursing education in Western Balkan countries is in the transition period (implementation of new methods, development of new methods based on existing competences, creation of joint programmes with other institutions). There are differences in the basic training of nurses (secondary qualification, post-secondary qualification, and bachelor studies). Impact on nursing education is represented the establishment of private universities offering education programmes in nursing with a different standard than the public universities. This creates a room for improvement in theoretical and practical areas. Methods for theoretical and practical training require innovation. Despite these deficiencies, there are also positive trends in nursing education, such as the ongoing reforms in the context of European criteria for the higher education, implementation of new strategies and cooperation within individual faculties, investments in the material equipment of educational institutions [20].

Nurses represent the largest percentage of the health care workforce in Bosnia and Herzegovina. In the field of nursing, the educational system is still divided into two levels with no proper distinction in legal documents regarding what is the responsibility of nurses with a high school education and what is the responsibility of nurses with a bachelor’s degree. Implementation of new teaching methodologies and assessment methodologies is crucial [21].

Of the data collected, it is evident that five of the twelve EU countries (Belgium, Finland, Germany, Netherlands and Sweden) provide a two-level education for nurses [22].

Transformation of education in the European Union has brought numerous changes in the modification of teaching, curriculum and time allocation of classes within courses, implementation of new teaching methods to studies, etc. The project is entitled TEMPUS – Competency based Curriculum Reform in Nursing and Caring in Western Balkan Universities (CCNURCA No. 544169-TEMPUS-1-2013-1-BE-TEMPUS-JPCR) and it is currently under way in the international cooperation, which initiates European standards in order to innovation the content of training in nursing [25].

Control of study and evaluation of academic results

Evaluation of academic results of the student within the academic subject is carried out: through continuous controlling of academic results during the period of study (written tests, seminar work etc.) and by exam for the given period of study. The teacher gives a grade for the completion of the course. The grade expresses the quality of acquired knowledge and practical skills in accordance with the results of learning on the subject information sheet [17]. Theories or models that have been applied to nursing include Bloom’s

<table>
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<th>TABLE 1. Approaches to coursework assessment</th>
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<tr>
<td>Essays</td>
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<tr>
<td>A standard method, essentially concerned with trying out ideas and arguments, supported by evidence. Has potential for measuring understanding, synthesis and evaluative skills. In most essays, there are no absolutely right or wrong answers and marking for feedback can be time consuming. Variations between markers can be high.</td>
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<tr>
<td>Case studies and open problems</td>
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<td>Case studies have potential for measuring application of knowledge, analysis, problem-solving and evaluative skills. This method allows students to apply theory to practical situations. Marking criteria help re-grading and feedback.</td>
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<tr>
<td>Projects and group projects</td>
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<td>Good all-round ability testing. Potential for sampling wide range of practical, analytical and interpretative skills. Develops tutor/student and student/student relationships. Wider application of knowledge and skills to real/simulated situations. Motivation tends to be high. Feedback potential (especially in incorporating self or peer assessment). Tests methods as well as end results and use of criteria reduces variability. May include seminars and tutorials, case studies, simulation, role-plays, problem solving exercises, team-building and experiential (‘live’ project) learning.</td>
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<tr>
<td>Seminar presentations</td>
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<td>Feedback potential from tutor, self and/or peers; tests preparation, understanding, knowledge, capacity to structure information and oral communication skills. Can broaden possible topic and approaches. Marking based on simple criteria is fast and potentially reliable.</td>
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<tr>
<td>Laboratory/Practical work</td>
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<td>Feedback potential; with potential for measuring knowledge of experimental procedures, analysis and interpretation of results. Can also test preparation and practical skills and can help broaden topic and approaches, particularly in terms of application of knowledge.</td>
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<tr>
<td>Posters</td>
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<td>Students summarise their work by preparing a poster. Encourages students to think creatively about their work and present it effectively, as well as presenting findings and interpretations succinctly and attractively. Presentation and feedback potential, from tutor, self and peers.</td>
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</table>

Sources: [13–16]
cognitive taxonomy of learning. Bloom’s Taxonomy is classification, so the well-known taxonomy of learning objectives is an attempt (within the behavioural paradigm) to classify forms and levels of learning. It identifies three “domains” of learning, each of which is organised as a series of levels or pre-requisites. As well as providing a basic sequential model for dealing with topics in the curriculum, it also suggests a way of categorising levels of learning, in terms of the expected ceiling for a given programme [18].

CONCLUSION

Nursing encompasses autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. Nursing includes the promotion of health, prevention of illness, care of ill, disabled and dying people. Advocacy, promotion of a safe environment, research, participation in shaping health policy and in patient and health systems management, and education are also key nursing roles. Broadly speaking postgraduate degrees for nurses fall into categories: leadership, management and administration of health services; clinical nursing specialities with or without practice competences; general nursing studies; research methods in health; nurse education. In addition, nurses undertake interprofessional/multidisciplinary courses associated with health education, medicine or social care, for example studies in rehabilitation, nutrition, public health, counselling. Competence of nurse is the state of having the knowledge, skills, energy, experience and motivation required to respond adequately to the demands of one’s professional responsibility [19].

CONFLICT OF INTEREST

Neither author has any financial or personal relationship with people or organisations that could inappropriate influence their work.

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REFERENCES

[1] Decree of the Government of the Slovak Republic No. 296/2010 Coll. on professional qualification for performance of health service occupation, the method of further education of health professionals, system of specialized fields and system of certified working activities.
[2] Decree of the Ministry of Health of the Slovak Republic No. 364/2005 Coll., which determines the scope of nursing practice provided by nurses independently and in conjunction with a doctor and the scope of midwifery practice provided by midwives independently and in conjunction with a doctor (as amended by No. 470/2006 Coll.).
[6] Act of the National Council of the Slovak Republic No. 578/2004 Coll. on health care providers, health service personnel, professional organizations in health service and on amendments to certain acts.


