

# **Educational outcomes of medical, nursing and midwifery studies as the basis for preparing medical professionals for providing the elderly with health-care services**

## **Efekty kształcenia na studiach lekarskich, pielęgniarzkich i położniczych jako baza przygotowania pracowników medycznych do realizacji świadczeń zdrowotnych na rzecz osób w podeszłym wieku**

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### **Abstract**

**Introduction.** Undergraduate education given to Polish students of medicine, nursing and midwifery is regulated by Polish and EU law. What is particularly important here is the set of educational standards which determines the theoretical and practical preparation of Polish medical, nursing and midwifery graduates for providing the healthy and the sick of different ages, including the elderly, with medical care. **The purpose of the study.** The purpose of the study is to analyse the standard educational outcomes as well as the practical training classes and internships orientated towards elderly patients in the context of the professional preparation of the abovementioned graduates for providing the elderly with health-care services. **Material and methods.** Higher education legislation and certain documentation regulating undergraduate medical, nursing and midwifery studies have been analysed. **Results.** The professional preparation of the graduates for delivering geriatric care is defined by detailed educational outcomes, mainly those regarding the field of nursing, particularly its specialist care knowledge module. **Conclusions.** It is the professional preparation of first-cycle students of nursing that is most explicitly defined in terms of providing geriatric care. One is justified in considering the isolation of a geriatrics module within the educational standards regulating the study fields of medicine and midwifery. Also, geriatrics care should be a part of the students' practical training classes and internships. (Gerontol Pol 2018; 26; 36-46)

**Keywords:** educational outcomes, standard of education, geriatrics, medical faculty, nursing, midwifery

### **Streszczenie**

**Wstęp.** Kształcenie przeddyplomowe polskich lekarzy, pielęgniarzek i położnych jest regulowane prawem krajowym i Unii Europejskiej. Szczególnie istotne są standardy kształcenia wskazujące zakresy przygotowania teoretycznego i praktycznego absolwentów do opieki medycznej nad osobami zdrowymi i chorymi w różnym wieku, w tym również nad seniorami. **Cel.** Analiza standardowych efektów kształcenia i zakresów zajęć praktycznych oraz praktyk zawodowych zorientowanych na pacjentów w podeszłym wieku w kontekście przygotowania absolwentów do realizacji świadczeń zdrowotnych adresowanych do seniorów. **Materiał i metody.** Dokonano analizy aktów prawnych i dokumentów formalnych regulujących szkolnictwo wyższe, w tym głównie kształcenie przeddyplomowe na kierunkach lekarskim, pielęgniarzkim i położniczym. **Wyniki.** Przygotowanie absolwentów do opieki geriatrycznej zostało zdefiniowane przede wszystkim w szczegółowych efektach kształcenia. Efekty uwzględniające seniorów odnotowano głównie w standardzie kształcenia dla kierunku pielęgniarstwo, przede wszystkim w module nauki w zakresie opieki specjalistycznej. **Wnioski.** Najbardziej jednoznacznie, do opieki nad

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pacjentem starym, określono przygotowanie licencjata pielęgniarstwa. Zasadnym jest rozważenie wyodrębnienia modułu geriatry w standardach kształcenia na kierunkach lekarskim i położniczym oraz wskazania tego zakresu do realizacji zajęć praktycznych i praktyk zawodowych. (*Gerontol Pol* 2018; 26; 36-46)

**Słowa kluczowe:** efekty kształcenia, standard kształcenia, geriatrya, kierunek lekarski, pielęgniarstwo, położnictwo

## Introduction

Medical, nursing and midwifery studies are among the so-called regulated fields of study, i.e. those determined by formal and legal documents issued by Polish and EU authorities. Through their first-cycle studies, Polish medical, nursing and midwifery graduates are prepared for providing the healthy and the sick of different ages, including those with various clinical symptoms, with medical care [1-7].

## Purpose of the study

The purpose of this study is to present standard educational outcomes as well as scopes of practical training classes and internships orientated towards elderly patients in the context of the professional preparation of the abovementioned graduates for providing the elderly with health-care services.

## Material and methods

Higher education legislation and certain documentation regulating undergraduate medical, nursing and midwifery studies have been analysed. Resolutions issued by the National Council for the Accreditation of Nurse and Midwife Education (*Krajowa Rada Akredytacyjna Szkół Pielęgniarek i Położnych*) have been analysed, too.

## Results

Through their first-cycle studies, Polish medical, nursing and midwifery graduates are prepared for providing people of different ages, including the elderly, with basic health-care services [1-7]. Specialist geriatric care skills are acquired by them through their postgraduate courses, i.e. through specialisation courses in geriatrics for doctors, and during professional qualification courses or specialisation courses in geriatric nursing for nurses. Midwives increase their professional competence during their specialisation courses in midwifery and gynaecology nursing, which used to be called gynaecology nursing in the past [8-10].

General educational outcomes determined by medical education standards concern patients from all age groups, in various states of health and with various pathological conditions (Table I). In the case of medical studies, the abovementioned outcomes include the following in their knowledge module: the normal and pathological development, physical constitution and functions of the human body; symptoms and course of diseases; diagnostic and therapeutic measures to be taken in the case of particular pathological conditions; ethical, social and legal rules for practising the medical profession; health promotion rules. The acquired knowledge is based on scientific evidence and accepted norms. As for the professional skills module, the medical graduates can do the following: diagnose medical problems and determine medical treatment priorities; diagnose life-threatening conditions and those which require immediate medical intervention; plan diagnostic measures and interpret diagnostic test results; implement the right and safe therapeutic measures, and anticipate their results. As for the social competence, the graduates can do the following: establish and maintain close and cordial personal relations with patients; put the patient's good first; preserve patient confidentiality and respect patient rights; realise their limitations and constantly improve their professional skills [1].

First-cycle nursing studies graduates have a detailed knowledge of nursing; a general knowledge of other medical sciences; knowledge of legal regulations, ethical norms and deontology with regard to practising the nursing profession. As for their professional skills, the graduates can: utilize up-to-date knowledge in order to ensure patient safety and deliver high-quality nursing care; provide nursing care aimed at promoting and protecting one's health as well as preventing diseases; provide disabled and dying patients with comprehensive and individualised nursing care; practise the nursing profession on their own and according to the rules of general and professional ethics, applying the holistic approach to their patients' needs; organise their work and workplace; cooperate with medical care teams as well as initiate and facilitate local community activities aimed at protecting health. As for their social competence, the nursing graduates can effectively-and with empathy-communicate with patients; they realise that there are certain factors affecting their patients' and their own reactions; and also

realise the need to educate themselves in a permanent and continual way [2].

As for the knowledge module, the midwifery graduates have a detailed knowledge of midwifery; a general knowledge of other medical sciences; knowledge of legal regulations and ethical norms regarding the nursing profession. As for their professional skills, the graduates can do the following: provide women and their families, pregnant women, women giving birth to their children, women in confinement, infants and women suffering from gynaecologic diseases with health-care services; promote health and prophylactics; deliver midwifery and gynaecology care in the preconceptional, prenatal and perinatal phases as well as the menopause and old age periods; diagnose pregnancy; look after pregnant women and monitor the course of their normal pregnancy; deliver a baby on their own (normal pregnancy; in and outside a hospital) and, if necessary, make an incision in the perineum and stitch it. Also, the midwifery graduates can: monitor the foetus using medical equipment; diagnose mothers' and their babies' abnormal conditions during pregnancy, labour, delivery and confinement; take immediate action in cases of emergency until a doctor arrives, including taking the placenta out manually and examining the womb manually; look after mothers and their infants; monitor the course of the postnatal period and examine the baby; take any necessary action in cases of emergency, including immediate resuscitation; cooperate with medical staff; conduct health education activities in the scope of introducing people to family life, parenthood and having children, family planning methods, and maternity and fraternity protection. As for their social competence, the first-cycle midwifery graduates realise that there are certain factors affecting their patients' and their own reactions. Also, they realise the need to educate themselves in a permanent and continual way, and can practise the midwifery profession on their own and according to the rules of general and professional ethics, applying the holistic approach to their patients' needs, and respecting their rights [3] (Table I).

Within the educational standards for medical, nursing and midwifery studies, there are a few educational outcomes which directly apply to health-care services orientated towards elderly patients. Among the general educational outcomes, there is only one—for midwifery studies—which relates to the elderly, namely the one which says that the midwifery graduates can provide women (and their families) in their menopause and old age periods with health services [3]. As for the medical and nursing studies, none of the general educational outcomes relates to elderly people (Table I) [1,2].

Regarding the detailed educational outcomes for the medical studies, those concerning geriatrics can be fo-

und in the 'clinical sciences—non-surgical treatment' module, i.e. besides paediatrics, internal medicine, neurology, psychiatry, dermatology, oncology, family medicine, infectious disease management, physical rehabilitation, laboratory diagnostics, and clinical pharmacology. In this module, there are five educational outcomes which directly relate to the elderly, i.e. the ones which say that the graduates: know and understand the course and symptoms of the ageing process as well as the rules for comprehensive geriatric evaluation and interdisciplinary medical care orientated towards elderly patients; understand the causes of the most common diseases afflicting elderly people and know the rules for treating basic geriatric syndromes; know and understand basic pharmacotherapy rules for treating elderly patients' diseases; know and understand the threats related to the hospitalisation of the elderly; know and understand the basic rules for organising health care orientated towards elderly people; know and understand the burdens carried by elderly people's carers [1].

As for the nursing studies, educational outcomes regarding geriatrics and geriatric nursing are included in the 'specialist health care sciences' module, i.e. besides internal medicine and internal medicine nursing, paediatrics and paediatric nursing, surgery and surgical nursing, midwifery, gynaecology and midwifery and gynaecology nursing, psychiatry and psychiatric nursing, anaesthesiology and nursing for life-threatening conditions, physical rehabilitation, providing the disabled with nursing care, neurology and neurologic nursing, palliative care and the fundamentals of medical lifesaving/rescue. According to the sixteen educational outcomes, the nursing graduates can: characterise health-threatening factors affecting patients of various ages and states of health; explain and describe the etiopathogenesis, symptoms, course, treatment, prognosis and nursing care of the disorders of the following: cardiovascular system (heart, and blood vessels), respiratory system, nervous system, alimentary system (stomach, intestines, large glands), liver, pancreas, urinary system, (kidneys and urinary bladder), osteoarticular system, muscles, endocrine system, and blood. The nursing graduates also know the rules for medical evaluation of patients, depending on their age, and the rules for geriatric nursing diagnostics. They can characterise medication groups and describe how medicaments influence the bodily systems and organs of patients suffering from various diseases, depending on their age and state of health, including side effects and interactive operation with other medicaments. Also, the nursing graduates know the rules for preparing patients for self-care, depending on their age and state of health; distinguish between patients' reactions to their diseases and hospitalisation, depending

Table 1. General educational outcomes of medical fields of study as related to patients' age, including old age

Scope	medical				nursing				midwifery				
	Educational outcome	Relating to all patients	Containing reference to the elderly	Relating to all patients	Educational outcome	Relating to all patients	Containing reference to the elderly	Relating to all patients	Educational outcome	Relating to all patients	Containing reference to the elderly	Relating to all patients	Containing reference to seniors
Field of study	a) development, structure and functions of the human body in normal and pathological conditions;	X	-	X	a) detailed knowledge of nursing;	X	-	X	a) detailed knowledge of midwifery;	X	-	X	-
	b) symptoms and course of diseases;	X	-	X	b) general knowledge of other medical sciences;	X	-	X	b) general knowledge of other medical sciences;	X	-	X	-
	c) methods of diagnostic and therapeutic procedures appropriate for specific sickness;	X	-	X	c) knowledge of legal regulations, ethical standards and deontology relating to the practice of the nursing profession;	X	-	X	c) knowledge of professional ethics and legal provisions relating to the performance of the midwifery profession;	X	-	X	-
	d) ethical, social and legal determinants of practising the medical profession and the principles of health promotion; she/he bases her/his knowledge on scientific evidence and accepted norms.	X	-	X									
Professional skills	a) recognize medical problems and determine priorities in the field of medical treatment;	X	-	X	a) use up-to-date knowledge to ensure safety and high-quality care;				a) perform health services for: a woman and her family, a pregnant woman, a woman giving birth, a woman in confinement and her newborn, and a gynaecologically ill woman, in the field of health promotion, prophylaxis and professional midwifery-gynaecological care – pre-conception, prenatal, perinatal, and menopause and old age;	X		X	X
Graduate can:	b) recognize life-threatening conditions and those requiring immediate medical intervention;	X	-	X	b) provide services in the areas of promotion and preservation of health as well as disease prevention;			X	b) recognize pregnancy, take care of a woman in the course of a physiological pregnancy and monitor her normal pregnancy, independently deliver a baby (in and outside hospital), if necessary with an incision in the perineum and stitching it; monitor the foetus using medical equipment and detect abnormalities in mother and child during pregnancy, delivery and confinement;	X		X	-





	<p>D.W4 She/He knows the rules for evaluating patients' conditions depending on their age;</p>	<p>D.U36. She/He she delivers gynaecological care to women at various stages of their lives and in various states of health - from conception to old age;</p>
	<p>D.W5. She/He knows the rules for geriatric nursing diagnostics;</p>	
	<p>D.W8. She/He characterizes groups of drugs and their effects on the patient's bodily systems and organs in various diseases, depending on their age and health status, including side effects, interaction with other drugs and routes of administration;</p>	
	<p>D.W10. She/He knows the rules for preparing patients for self-care, depending on their age and health status;</p>	
	<p>D.W11. She/He distinguishes between patients reaction to the disease and hospitalization, depending on their age and health status;</p>	
	<p>D.W12 She/He knows the role of a nurse when a patient is admitted to a health care institution, depending on patient's age and health status;</p>	
	<p>D.W13. She/He characterizes the ageing process in terms of bio-psycho-socio-economic aspects;</p>	
	<p>D.W14. She/He knows the specific rules for the organization of specialized care (geriatric, intensive care, neurological, psychiatric, paediatric, internal medicine, surgical, and palliative care as well as the Polish emergency medical rescue system);</p>	
	<p>D.W15. She/He distinguishes etiopathogenic diseases of the elderly: diabetes, heart disease, hypertension, atherosclerosis, demential syndromes, Parkinson's disease and depression;</p>	
	<p>D.W16. She/He characterizes the tools and evaluation schemes of the support for older people and their families;</p>	
	<p>D.W17. She/He knows the rules for activating disabled and geriatric patients;</p>	
	<p>D.U1 She/He collects information, formulates a nursing diagnosis, formulates nursing objectives and a care plan, implements nursing interventions and performs evaluation of nursing care;</p>	
	<p>D.U2. She/He recognizes the determinants of maintaining the health of care recipients of different ages and states of health;</p>	
	<p>D.U3. She/He advises patients of various ages and states of health on their self-care, concerning developmental defects, diseases and social addictions.</p>	


on their age and state of health; know the role of a nurse involved in admitting patients to health-care institutions; can characterise the ageing process in terms of its biological, psychological, social and economic aspects; know certain rules for organising specialist care (geriatric, intensive, neurologic, psychiatric, paediatric, internal medicine, surgical and palliative care as well as the Polish medical rescue system); can distinguish between ethiopathogenic disorders affecting elderly patients: diabetes, heart diseases, arterial hypertension, arteriosclerosis, demential syndromes, Parkinson's disease and depression; can characterise tools and evaluation schemes for supporting elderly


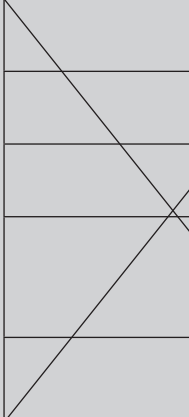

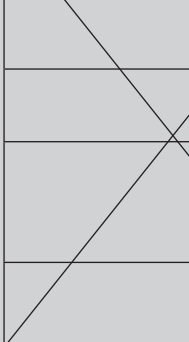
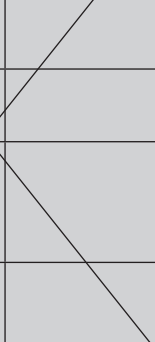
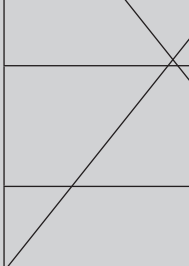

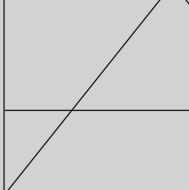
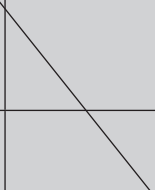


patients and their families; know the rules for activating disabled geriatric patients; diagnose and interpret basic distinct features while examining new born babies, infants, adults and elderly patients; can collect information and make a nursing diagnosis; formulate the objectives of nursing care and plan it; make nursing interventions and evaluate nursing care; give advice to patients of different ages and states of health on how to conduct self-care; motivate patients and their carers to enter social support groups [2].

The midwifery graduates can do the following: analyse and evaluate the functioning of various medical care systems orientated towards women at various stages of

**Table III. Practical training classes and internships according to the standard guidelines, including those orientated towards geriatric patients with reference to other areas of practical education.**

 Directly orientated towards the elderly  Indirectly orientated towards the elderly

 Not applying to elderly people whatsoever

Field of study	Medical		Nursing		Midwifery	
	Ward	Number of hours*/ weeks	Ward	Number of hours*/ weeks	Ward	Number of hours*/ weeks
	Internal diseases and 6 weeks in:	8	Basics of nursing	80 hours/ 2 weeks	Basics of midwifery care	160 hours/ 4 weeks
	Paediatrics	4	Health promotion	20 hours/ " weeks	Midwifery techniques and delivery	320 hours/ 8 weeks
	Surgery	4	Basic health care	120 hours/ 3 weeks	Health promotion	20 hours/ " week
	Gynaecology and obstetrics	2	Midwifery, gynaecology and midwifery and gynaecological nursing	80 hours/ 2 weeks	Basic health care	40 hours/ 1 week
	Psychiatry	2	Paediatrics and paediatric nursing	160 hours/ 4 weeks	Midwifery and midwifery care	120 hours/ 3 weeks
	Emergency medicine	2	Internal diseases and internal medicine nursing	120 hours/ 3 weeks	Gynaecology and gynaecological care	120 hours/ 3 weeks
	Family medicine	2	Surgery and surgical nursing	120 hours/ 3 weeks	Neonatology and neonatal care	80 hours/ 2 weeks
	Specialisation chosen by the student	6	Rehabilitation and nursing the disabled	80 hours/ 2 weeks	Paediatrics and paediatric nursing	40 hours/ 1 week
			Geriatrics and geriatric nursing	80 hours/ 2 weeks	Internal diseases	40 hours/ 1 week
			Neurology and neurological nursing	80 hours/ 2 weeks	Surgery	40 hours/ 1 week
			Psychiatry and psychiatric nursing	80 hours/ 2 weeks	Psychiatry	40 hours/ 1 week
			Anaesthesiology and nursing for life-threatening conditions	40 hours/ 1 week	Anaesthesiology and life-threatening conditions	40 hours/ 1 week
			Palliative care	40 hours/	Rehabilitation in midwifery, neonatology and gynaecology	40 hours/ 1 week



Apprentice- ships	Care for the sick	4	Basics of nursing	120 hours/ 3 weeks	Basics of midwifery care	80 hours/ 2 weeks
	Open treatment (family doctor)	3	Basic health care	200 hours/ 5 weeks	Midwifery techniques and delivery	360 hours/ 9 weeks
	Emergency as- sistance	1	Midwifery, gynaecology and midwifery - gynaecological nursing	40 hours/ 1 week		
	Internal diseases	4	Paediatrics and paediatric nursing	160 hours/ 4 weeks	Basic health care	80 hours/ 2 weeks
	Intensive care	2	Internal diseases and inter- nal medicine nursing	160 hours/ 4 weeks	Midwifery and mid- wifery care	200 hours/ 5 weeks
	Paediatrics	2	Surgery and surgical nurs- ing	160 hours/ 4 weeks	Gynaecology and gynaecological care	200 hours/ 5 weeks
	Surgery	2	Rehabilitation and nursing the disabled	80 hours/ 2 weeks	Neonatology and neonatal care	80 hours/ 2 weeks
	Gynaecology and obstetrics	2	Geriatrics and geriatric nursing	80 hours/ 2 weeks	Paediatrics and pae- diatric nursing	40 hours/ 1 week
			Neurology and neurological nursing	80 hours/ 2 weeks	Internal diseases	40 hours/ 1 week
			Psychiatry and psychiatric nursing	40 hours/ 1 week	Surgery	40 hours/ 1 week
			Anaesthesiology and nurs- ing for life-threatening con- ditions	40 hours/ 1 week	Psychiatry	40 hours/ 1 week
			Palliative care	40 hours/ 1 week	Anaesthesiology and life-threatening condi- tions	40 hours/ 1 week

\* (hours = teaching hours) The educational standard for the medical studies does not provide any numbers of teaching hours, but the number of weeks for practical training classes and internships.

their lives; carry out physical examination; diagnose and interpret basic distinct features while examining new born babies, women at the childbearing age, mature women and elderly women; record physical examination results and utilise them to evaluate the state of health of new born babies, women at the childbearing age, mature women and elderly women; characterise psychological disorders accompanying somatic diseases, and discuss psychological disorders in the menopause and old age periods; educate women in terms of hygiene and diet during their pregnancy, confinement, gynaecological disorders, and all the other phases of their lives; provide women of various ages and states of health with gynaecological care [3] (Table II).

The majority of the remaining educational outcomes for all the three fields of study indirectly relate to elderly people, too. However, their content does not directly apply to the elderly [1-3].

Practical education, i.e. practical training classes and internships, dedicated to providing elderly patients with health-care has been explicitly defined for the nursing studies only; geriatrics and geriatric nursing – 80 te-

aching hours/2 weeks in the form of practical training (4 ECTS) and 80 teaching hours/2 weeks in the form of internship (2 ECTS). Students of nursing also learn how to deliver health services which may be orientated towards the elderly in other medical and health-care institutions during their practical training classes and internships, i.e. fundamentals of nursing; health promotion; basic health care; midwifery; gynaecology and gynaecology and midwifery nursing; internal medicine and internal medicine nursing; surgery and surgical nursing; physical rehabilitation and nursing the disabled; neurology and neurological nursing; psychiatry and psychiatric nursing; anaesthesiology and nursing for life-threatening conditions as well as palliative care [2].

As for the medical studies, practical education is delivered through practical training classes in the following areas of specialisation: internal medicine; paediatrics; surgery; gynaecology and obstetrics; psychiatry; emergency medicine; family medicine; and particular specialisations chosen by particular students (6 weeks of practical training). There are also summer training courses, whose content (looking after patients, general medical practice

and family doctor, emergency medical care, internal medicine, intensive care, paediatrics, surgery, gynaecology and obstetrics) and educational outcome evaluation are established by a given college or university department responsible for the practical education. The educational standard for the medical studies does not directly state that the practical training classes or internships need to be conducted in geriatric clinics or wards, which confirms that the educational outcomes relating to the elderly may be achieved in other health-care institutions [1].

Such is the case with the standard guidelines regulating the midwifery practical training; they do not specify health-care institutions or any health-care institution units orientated towards elderly patients (Table III).

## Discussion

The education of medical, nursing and midwifery students is regulated, i.e. determined by the general Polish higher education regulations and normative acts relating only to these fields of study, in particular the educational standards and guidelines issued by the National Council for the Accreditation of Nurse and Midwife Education (*Krajowa Rada Akredytacyjna Szkół Pielęgniarek i Położnych*). The preparation of the abovementioned students for delivering geriatric care has been defined in the detailed educational outcomes. Only one general educational outcome of midwifery studies relates to elderly women, among others. The largest number of detailed educational outcomes relating to elderly people have been noted in the case of the educational standard for the nursing studies, especially in the specialist care knowledge module. There are much fewer geriatrics-related

educational outcomes in the case of the educational standards for the medical and midwifery studies. The practical preparation in the form of practical training classes and/or internships has also been most explicitly orientated towards the elderly in the case of the educational standard for the nursing studies—through geriatrics and geriatric nursing classes. As for the medical and midwifery studies, students' practical training has been indirectly related to elderly patients, but geriatrics has not been taken into account [1-7].

## Conclusions

1. According to the current formal regulations which are binding in Poland, in particular the educational standards for medical, nursing and midwifery studies, it is a nursing graduate that is most explicitly prepared for providing elderly patients with health care. This results from both the number and the content of nursing educational outcomes as well as the scopes of nursing practical training classes and internships, i.e. geriatrics and geriatric nursing, among other things.
2. Bearing in mind the demography of Polish society, including the ageing tendency and the specificity of geriatric health-care services, one needs to consider the isolation of a geriatrics module within the educational standards regulating the study fields of medicine and midwifery. Also, geriatrics care should be a part of the students' practical training classes and internships.

## Conflict of interest

None

## References

1. Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego z dnia 9 maja 2012r. w sprawie standardów kształcenia dla kierunków studiów: lekarskiego, lekarsko – dentystycznego, farmacji, pielęgniarstwa i położnictwa. Załącznik nr 1. Warszawa, Dziennik Ustaw, 2012, poz. 631. (Regulation of the Minister of Science and Higher Education of 9 May 2012 on educational standards for the following fields of study: medical, medicine and dentistry, pharmacy, nursing and midwifery. Annex No. 1. Warsaw, Journal of Laws, 2012, item 631.)
2. Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego z dnia 9 maja 2012r. w sprawie standardów kształcenia dla kierunków studiów: lekarskiego, lekarsko – dentystycznego, farmacji, pielęgniarstwa i położnictwa. Załącznik nr 4. Warszawa, Dziennik Ustaw, 2012, poz. 631. (Regulation of the Minister of Science and Higher Education of 9 May 2012 on educational standards for the following fields of study: medical, medicine and dentistry, pharmacy, nursing and midwifery. Annex No. 4. Warsaw, Journal of Laws, 2012, item 631.)

3. Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego z dnia 9 maja 2012r. w sprawie standardów kształcenia dla kierunków studiów: lekarskiego, lekarsko – dentystycznego, farmacji, pielęgniarstwa i położnictwa. Załącznik nr 5. Warszawa, Dziennik Ustaw, 2012, poz. 631. (Regulation of the Minister of Science and Higher Education of 9 May 2012 on education standards for the following fields of study: medical, medicine and dentistry, pharmacy, nursing and midwifery. Annex No. 5. Warsaw, Journal of Laws, 2012, item 631.)
4. Dyrektywa Parlamentu Europejskiego i Rady 2013/55/UE z dnia 20 listopada 2013 r. zmieniająca dyrektywę 2005/36/WE w sprawie uznawania kwalifikacji zawodowych i rozporządzenie (UE) nr 1024/2012 w sprawie współpracy administracyjnej za pośrednictwem systemu wymiany informacji na rynku wewnętrznym („rozporządzenie w sprawie IMI”). Dziennik Urzędowy Unii Europejskiej L 354/132 28.12.2013. (Directive 2013/55/EU of the European Parliament and Council of 20 November 2013 amending Directive 2005/36/EC on the recognition of professional qualifications, and Regulation (EU) No. 1024/2012 on administrative cooperation through the Information Exchange System on the internal market (‘the IMI Regulation’). Official Journal of the European Union L 354/132 dated 28 December 2013.)
5. Obwieszczenie Marszałka Sejmu Rzeczypospolitej Polskiej z dnia 16 grudnia 2016 r. w sprawie ogłoszenia jednolitego tekstu ustawy o zawodach lekarza i lekarza dentysty. Warszawa. Dziennik Ustaw, 2017, poz. 125. (Notice of the Speaker of the Parliament of the Republic of Poland of 16 December 2016 regarding the publication of a uniform text of the Act on the professions of doctor and dentist. Warsaw. Journal of Laws, 2017, item 125.)
6. Ustawa z dnia 15 lipca 2011 r. o zawodach pielęgniarki i położnej. Warszawa. Dziennik Ustaw, 2011 r., Nr 174, Poz. 1039. (The Act of 15 July 2011 on the nursing and midwifery professions. Warsaw. Journal of Laws, 2011, No. 174, item 1039.)
7. Uchwała nr 4/IV/2013 z dnia 21 listopada 2013 roku Krajowej Rady Akredytacyjnej Szkół Pielęgniarek i Położnych w sprawie określenia szczegółowych kryteriów oceny spełniania przez uczelnie standardów kształcenia. (Resolution No. 4/IV/2013 of 21 November 2013 of the National Council for the Accreditation of Nurse and Midwife Education on defining detailed criteria for assessing the compliance of universities with the educational standards.)
8. Rozporządzenie Ministra Zdrowia z dnia 2 stycznia 2013 r. w sprawie specjalizacji lekarzy i lekarzy dentystów. Warszawa. Dziennik Ustaw, 2013, poz. 26. (Regulation of the Minister of Health of 2 January 2013 on the specialization of doctors and dentists. Warsaw. Journal of Laws, 2013, item 26.)
9. Rozporządzenie Ministra Zdrowia z dnia 30 września 2016 r. w sprawie kształcenia podyplomowego pielęgniarek i położnych. Warszawa, Dziennik Ustaw, 2016, poz. 1761. (Regulation of the Minister of Health of 30 September 2016 on the post-graduate education of nurses and midwives. Warsaw, Journal of Laws, 2016, item 1761.)
10. Rozporządzenie Ministra Zdrowia z dnia 12 grudnia 2013 r. w sprawie wykazu dziedzin pielęgniarstwa oraz dziedzin mających zastosowanie w ochronie zdrowia, w których może być prowadzona specjalizacja i kursy kwalifikacyjne. Warszawa, Dziennik Ustaw, 2013, poz. 1562. (Regulation of the Minister of Health of 12 December 2013 on the list of nursing domains and areas of application in health care in which specialization and qualification courses may be conducted. Warsaw, Journal of Laws, 2013, item 1562.)