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A PROFESSIONAL NURSE AND EMERGENCY MEDICAL SYSTEMS IN SEVERAL EUROPEAN UNION MEMBER STATES AND IN THE WORLD. OPINIONS OF EMERGENCY SERVICE AND INTENSIVE MEDICAL CARE PROFESSIONALS

PIELĘGNIARKA A SYSTEMY RATOWNICTWA W WYBRANYCH KRAJACH UNII EUROPEJSKIEJ I NA ŚWIECIE. OPINIE PRZEDSTAWICIELI NARODOWYCH SYSTEMÓW RATOWNICTWA MEDYCZNEGO I INTENSYWNEJ OPIEKI MEDYCZNEJ

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Summary

The main purpose of this study is to describe the current situation of nursing in selected national emergency services in European Union and United States of America. An undoubted advantage of the article is referring to unpublished interviews with emergency services staff from Belgium, the Netherlands and US-experienced Polish paramedic.

Key words: nursery, emergency services, law.

Streszczenie

Głównym celem pracy jest nakreślenie roli personelu pielęgniarskiego w wybranych narodowych systemach ratownictwa medycznego w Unii Europejskiej i Stanach Zjednoczonych Ameryki Północnej. Niewątpliwym atutem artykułu jest odwołanie się do niepublikowanych wywiadów przeprowadzonych z pracownikami systemów ratownictwa medycznego w Belgii i Holandii oraz amerykańskich doświadczeń polskiego ratownika medycznego.

Słowa kluczowe: pielęgniarstwo, służby ratunkowe, prawo.

The National Emergency Medical System Act[1], which is the current law, was legislated in order to ensure that every individual in a situation of unexpected medical distress is given assistance (Art. 1). In this manner the legislator made sure that the State's obligations are fulfilled. The law outlines how the system works and in what its structure is as well as how it is financed. Additionally, the aforementioned Act provides a framework for First Aid education in Poland. It is important to underline that although the bill was passed after May, 1 2004, in terms of its accordance with the EU law, this Act deals with the areas which are not within the scope or EU legislation.[2]

Firstly, a nurse is mentioned only five times in the National EMS Act, therefore it is difficult to cast some light on a nurse's legal status within the EMS. Secondly, a nurse working it the EMS is either a specialized nurse or undergoing specific training in the fields such as: emergency nursing, anaesthesiology, intensive care, surgery, cardiology, paediatrics, or is a nurse qualified in EMS nursing, anaesthesiology, intensive care, surgery, cardiology, paediatrics with at least 3-year experience in working at those specialties in wards, ambulatories, ERs or Emergency Service. The nurses who comply with the Art. 3, p.6 of the National EMS Act are called by the legislator "EMS nurses".

An EMS nurse, according to the law, is a specialized nurse but also a nurse undergoing the training in the field of EMS. The process of specialization was regulated by the Health Minister's regulation of October, 29, 2003 listing nursing specializations together with other health related areas in which specialization and qualifications may be obtained, and list of framework programs for nurses and midwives.[3]

[1] Journal of Laws No.191, Item 1410 of 2006.
[2] Project of justification of the National EMS Act by the Polish Sejm of V turn, print 853.
[3] Journal of Laws No.197, Item 1922.

A framework for a specialized EMS training for nurses was presented in the appendix 19 of the aforementioned Polish Health Ministry's regulation. According to this document such a training preparing a nurse to cope with demands of working in the EMS requires 1111 hours. During this time a nurse should gain knowledge of, among many other subjects, how EMSs are organized in Poland, Europe and in the world (p. 3).

Another task was assigned to the "EMS nurse" by the legislator – as they should be involved in First Aid education.[4] Those nurses can be members of basic as well as specialized and flight rescue teams, in other words the Emergency Medical System's units, complying the legal requirements and performing emergency medical procedures outside hospital premises.

In the reference literature a great attention is drawn to the problem that, although in the EMS all the rescue procedures should be performed exclusively by the nurses (a doctor or an EMT) with specific qualifications in emergency nursing, this is in fact difficult to implement. The main reason of this being the lack of an adequate number of nurses specialized in this field. Moreover this adequate personnel scarcity is common for all the Member States of the EU as well as for other countries [1].

According to estimates, three years after Poland joined the EU, 1.5-3% of Polish nurses have tried to migrate in order to find employment [2]. It became possible as the EU Member States have worked to standardize nursing professionals' curricula and specialized career paths. One of the steps, to unify the laws applicable to nurses' education and qualifications, undertaken by the Council of Europe, was "the European Agreement on the Instruction and Education of Nurses", drafted in Strasburg in 1967. The Polish government in 1995 ratified the document. It was planned that the year 2000 will be a breakthrough in the efforts aiming at bringing national regulations closer.

Another important initiative was the Bologna Declaration, which resulted in conclusions on the university education of nurses in Europe [3].

Owing to fruitful outcomes, it has become possible now for nursing staff to work outside their home countries [4] as well as develop professionally in Poland [5]. Thus, a notion of a Union nurse should be interpreted broadly based on their excellent skills and professional education. However, it in not enough, since those individuals should also be equipped with what is common for all Europeans. Those shared ideas are: human values, ethics, humanitarian bedside manners [6,7]. Moreover the nurses should be familiar with common European socio-cultural preconditions as far as respect for religion, believes and ethnic background are concerned [8]. None of those elements should impact the care provided by nursing professionals, whether it concerns ER, ICU or palliative wards. The respect and understanding which is required from nurses is relevant not only for professionals migration processes, but they should be even more significant for providing first aid to individuals with diverse cultural and religious background.

Efforts to introduce uniform laws and regulations, present within the European Union, include, among other areas, education and training of medical personnel. Because of this, the professionals educated in one of the EU Member States would have chance to find employment outside their home country. Despite some discrepancies in how medical care system is being financed, organized or what patterns of nursing, obstetrics or emergency services are implemented, the qualifications procedures for professionals seem to be more standardized and unified. Therefore, it enables non-nationals to displace and get employed, which is a common practice between the EU Member States. In many countries (with Great Britain among them) not strictly medical procedures (eg. occupational health services, ethics or IT systems) vary between different medical facilities (hospitals, clinics, private practices), therefore an initial training for newly employed medical professional is necessary. This enables them to adapt to local rules and practices [9]. One of the main aims of this chapter is to underline the different roles carried out by nursing professionals in both some of the EU Member States and outside of it. In order to reach this goal available literature and professionals in different fields of medicine were consulted.

In many cases the European countries regulate these issues in a similar manner. Due to a uniqueness of the Dutch EMS, the authors concentrated on the role that nurses play in providing emergency care.

The World Health Organization presented a report evaluating the functioning of the national EMSs [10] (WHO, 2008). WHO concluded that, although there are some significant differences between the national EMSs, financing or how the systems are organized seem to be quite similar. The today's Systems have been shaped by historical, socio-political events. The EMSs in Benelux and Eastern European countries seem to extend outside their national boarders. The WHO aims at functional unification of the Systems, with respect for discrepancies in how they are funded or what their structure is. Therefore, a need for unification has been pressing in Poland as well.

To adjust Polish public Emergency Medical System to European Union's, the Minister of Health approved September 30th 2009, a systemic project "Profesjonalne pielęgniarstwo systemu ratownictwa medycznego w Polsce – wsparcie kształcenia podyplomowego" ('Professional nursing in the Polish EMS – supporting postgraduate education'), to be carried out by Centrum Kształcenia Podyplomowego Pielęgniarek i Położnych (the Centre for Postgraduate Education of Nurses and Midwives). It received financial support form the European Social Fund. The main purpose of this initiative is to educate and increase the number of nursing professionals within the Polish public EMS.

[4] Art. 2 of the National EMS Act.

The Public Emergency Medical System Act created a new and separate medical profession – an EMS nurse. Its legal definition is stipulated in Art. 3 p. 6 of the National Emergency Medical System Act (2006)[5]. According to the Act, to become an EMS nurse, one must "be a specialist or be undergoing training in EMS nursing, anaesthesiology, intensive care, surgery, cardiology, paediatrics, or be a nurse after an EMS training in EMS nursing, anaesthesiology, intensive care, surgery, cardiology, paediatrics with at least 3-year experience in working at those specialties' wards, ambulatories, ERs or Emergency Service".

According to Polish law, a nurse of the Polish EMS may act without doctor's supervision when performing diagnostic and therapeutic tasks. The lack of such supervision is guaranteed by the Minister of Health Regulation[6], whilst a nurse's place and role in the entire EMS is defined by the National EMS Act[7]. The law states that a nurse is a full-fledged and an equal member of an emergency medical team. The Act enables a nurse to serve as an emergency dispatch. It defines a set of requirements for the job, namely it needs to be "a person with a capacity to perform acts in law, with a required education ranging from a doctor, a nurse to an EMT title; have at least 5 years of professional experience in an emergency medical unit, a trauma ward, an anesthesiology ward, an ICU or an ER"[8]. In Poland there is great pressure put on continuous education of nurses working in the EMS. Research conducted in 2010 indicates that the nurses upgrade their qualification, but they are still not fully aware of the rules and legal regulations applicable to their professions.

Moreover, an EMS nurse may be an ambulance driver for both general and specialized Emergency Services [11, 12] when simultaneously performing duties of an EMS nurse. When EMS recruitment processes are concerned a driving license is also a job requirement, among some others, in the Netherlands. Both in the Netherlands and in Belgium there are male and female nurses employed in ambulances [13]. The Dutch system bases on the principle that the ambulance driver is a qualified professional in safe and responsible driving and performing medical procedures.

Considering all the European countries, the broadest spectrum of medical emergency competences was given to the nursing personnel in the Netherlands. The EMS is based on highly trained emergency nursing professionals.

Iwona Kramarz, a Polish nurse certified by the SOSA (the Dutch Board for EMS), working in RAV Brabant Zuid-Oost Hospital in Eindhoven was questioned about the EMS system in the Netherlands [13]. She claims that the country may be proud of one of the best EMSs in the world. It has a national reach and is entirely based on the nursing staff. In the USA, which case will be touched on in more detail further in the article, there are Emergency Medical Systems separate for each State whilst in the Netherlands there is a single System with a unified structure. Starting form a basic first aid kit, through education, ending with the same skills verification procedures, they are all standardised in Amsterdam, Utrecht or Venlo.

In order to be employed within the Dutch EMS one needs to fulfil a list of requirements. Some of the indispensable skills are:

- a general nursing diploma (eg. HBO level - Hoger Beroeps Onderwijs)
- specialisation in EMS nursing, cardiac intensive care, intensive care or anaesthesiology
- experience of at least 5 years working, in a hospital, as a specialised nurse
- driving license.

Only the candidates who comply with all the requirements (education, qualification and professional experience) may apply for a position in the Emergency Department.

If successfully employed, one has to drive in the ambulance under instructor's supervision, responsible for the on-job training. That is the case until one passes the practical and theoretical part of the SOSA examination (Stichting Opleidingen Scholing Ambulancehulpverlening).

In the Dutch EMS system there is one exception from this rule – in Helicopter Emergency Medical Services (Traumaheli – a rescue chopper). This kind of team with a doctor on board is mainly dispatched to accidents, namely neurotrauma or child resuscitation procedure. A patient needs to be classified according with LPA7 (National Protocol for Ambulance Care) then the decision is made whether they require a helicopter transport or not.

A nurse working in the Dutch EMS is independent in their decision – to administer drugs, to perform intubation, cricothyrotomy, emergency tracheotomy, electrostimulation, and defibrillation or to lead through a CPR protocol. Moreover, they deal with injuries, transport patients to psychiatric wards and diagnose myocardial infraction, or transports cases of a severe cardiac problems to hemodynamic wards. The certificate SOSA (for ambulance medical rescue professionals) is valid for 5 years, therefore central practical renewal exams take place just before the lapse date. It aims at ensuring the current employers that professional skills are updated and meet requirements. If a nurse fails the central exam twice, they need to be accompanied by a tutor for the following 8 weeks to reveal shortcomings and implement proper changes. After being under supervision a nurse may take the exam, but if they fail again, their SOSA is cancelled and they cannot work in an ambulance.

[5] National Emergency Medical System Act of September 8, 2006 (Journal of Laws No. 191, Item 1410).

[6] Minister of Health Regulation of November 7, 2007 on the kind and the scope of preventive, diagnostic, therapeutic services provided by a nurse or a midwife without a doctor's order.

[7] National Emergency Medical System Act of September 8, 2006 (Journal of Laws No. 191, Item 1410).

[8] Ibidem.

During one of normal shifts a nurse may be called by surprise to a medical simulation centre. It is a call for an internal practical exam. A driver and a nurse are required to pass it. The most common is a CPR scenario. There are internal trainings available both of theoretical and practical nature. If completed, a person is awarded some credits which after 5 years make them eligible to take the central practical renewal exams – SOSA.

The Dutch healthcare system is costly and every citizen has to pay a health insurance premium. If the EMS system did not work properly and resulted in medical complications or immediate threat to life and health it would require changes due to amount of damages. Iwona Kramarz claims that in fact the EMS system, fortunately, works very well and both the Dutch and the health insurance companies are satisfied. In fact they need to be pleased as they pay around 1200 euros for one ambulance intervention. If the number of mistakes was high, nobody would be willing to pay that much. In recent ranking conducted among 30 European countries the Dutch EMS has placed first in Europe.

Delphine Desimelaere – a Belgium EMT provides some insight into their national EMS [14]. According to her to be employed by the Emergency Medical Services (EMS) in Belgium every nurse must follow one year course of emergency and first aid, finished with examination and internship (of one month). Then, after evaluation, a well-trained nurse may begin working in EMS ambulances. Every year EMS' personnel have reproducible trainings (with minimum 3 days duration) and, after each five years of duty, another evaluation. Usually, when there is a 112 call, an EMS team starts only with the basic ambulance and if the case is more complex the SAMU is called to the scene (Service d'Aide Médicale Urgente – it is an EMS ambulance with one nurse, one doctor and the driver.

The Polish EMS was build upon 30 years of experience of Anglo-Saxon countries. The Emergency Medicine Model, which exists in Great Britain and Australia was therefore carefully researched.

The American EMS and Intensive Care are based on many coexisting systems. Due to the USA administrative division, in which some prerogatives and powers were delegated onto a single state, the laws concerning EMS differ from one state to another. Nursing staff is usually onsite and in ICUs (Intensive Care Unit). According to witnessed situation in ICUs each nurse is responsible for providing care to two patients with a stable status. Nevertheless, in situations of high alert, or immediate danger to life and health, the ratio is one on one. The author of these observations, Marek Dąbrowski from Poznan University of Medical Sciences, claims that American Systems stand out with their number of specialised personnel, namely a nurse intensivist. In hospital such a nurse is a highly qualified and competent professional, who is often called before doctor's arrival. A person holding this position is responsible for cooperating with a doctor, supervising the state of a hospital in case new patients are being admitted. Moreover, this person has administrative duties such as: admitting the patients or moving them onto other wards or ICUs. Another role fulfilled by this individual is helping other nurses in dealing with serious cases and when health of some patients outside of the ICUs is deteriorating [15].

Besides, in the Intensive Care Units in the United States of America there are so called Emergency Rooms. Mobile units (ambulances) are staffed by paramedic personnel – Emergency Medical Technicians (EMTs), and Emergency Medical Paramedics (EMPs) [16]. Some of the duties of the nurses in European countries are performed by the EMTs in North America. According to Dąbrowski's observations it is common that those posts are occupied by women who are both EMTs and ambulance drivers.

Rescue actions are not solely carried out by independent Medical Emergency teams. In 2005 a rapid Response System was created which included MET (Medical Emergency Teams) into hospital system. The teams consist of doctors and nurses qualified in advanced resuscitation protocols. Within the hospital they constitute internal and mobile emergency teams performing their duties where needed. As the model succeeded in the USA and Australia it receives more and more recognition in Europe in supporting ICU teams [17].

The METs' activity may even cause a drop in patients admitted into ICUs. According to Polish authors a nurse is the core of a MET. They are mainly responsible for assisting during a rescue action by handling the intubation's equipment, setting intravenous infusions, preparing defibrillator's electrodes and administering medicines [17].

Another area where nurses are indispensable, both in the world and European EMSs, is Triage. It is the Patient Classification System (PCS) introduced in the USA during the 40's. It enables for better assessment of how many staff is needed to handle certain event. It is used in EMS and in general medicine. Ksykiewicz-Dorota took on the task to adapt the American PCS to Polish reality and situation [18]. The American approach specifies an average time span a nurse should handle one patient and which procedures should be applied by the members of a rescue team with respect to ambulances and ICUs.

The most common models describing medical classification which takes into account nurses activity are: Butler's [19, 20] and Nelson's [20, 21] models, but also Nursing Activities Score is applied. Another adaptation of the American model was carried out by Danuta Dyk and Katarzyna Cudak, from the University of Medical Sciences in Poznań [22]. In the Air Force Base Andrews, in Maryland, a nurse is a key element of the rescue system as after giving a diagnose an appropriate medical algorithm follows [20]. In another example of application of the American model (Nyack Hospital in New York) patients requiring intensive care need continuous 24/7 nursing care, therefore, two nurses are assigned to them [20].

The analysis indicates that the role that nursing professionals play in EMSs and ICUs, despite being sometimes similar, is defined differently in every country. The education systems, historical background and discrepancies in levels and sources of funding result in the nursing profession being regulated according to national standards. However, there were some European efforts to bring those national systems together, they basically differ a lot form each other.

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