
EDITORIAL

“To know that we know what we know,
and to know that we do not know what we do not know,
that is true knowledge”
Copernicus

Dear Readers,

We are proud to introduce you the first issue of the new journal **Nursing Education, Research, & Practice**. Enthusiasm, which initiated the challenging process of discussions and creativity, and goal-oriented activities have led us to the new journal having a wide scope of nursing field. A supporting team of colleagues, partners, and friends has significantly contributed to the materialization of our scientific ideas and dreams.

We are sincerely grateful to everyone and appreciate for participation that enabled a meaningful and historic event for Lithuanian and perhaps Eastern as well as all European nurses to happen. This is an important and serious undertaking for the Lithuanian University of Health Sciences and the Faculty of Nursing where the idea of this journal was generated. The first issue of the journal is dedicated to the 20th anniversary of the Faculty of Nursing of the Lithuanian University of Health Sciences. This is not an accidental event – a growing scientific power of the faculty, educational strength, and close cooperation with practitioners have evolved into the new journal.

The journal **Nursing Education, Research, & Practice** is a bi-annual, peer-reviewed, international general research journal. Its purpose is to advance knowledge and disseminate research findings that are directly relevant to the practice of nursing and midwifery. The journal publishes scholarly papers on all aspects of care in the nursing and midwifery professions including theory, clinical practice and education, history, policy and administration, ethics and new technologies.

In particular, the journal specifically aims to become a platform available for Eastern European countries with post-Soviet nursing and midwifery systems to share new ideas and demonstrate rapid and significant advancements in the nursing and midwifery disciplines.

We are prepared to work diligently so that together our efforts would serve to further development of nursing profession through scholarly evidence.

Jūratė Macijauskienė
Dean, Faculty of Nursing

Edgaras Stankevičius
Editor-in-Chief

GUEST EDITORIAL

Guest Editorial: Karen Holland MSc RNT RN,
Editor: Nurse Education in Practice (An Elsevier Publication: <http://www.elsevier.com/nepr>),
Subject Chair: Nursing/ Health Professions, SCOPUS Content Selection Advisory Board (CSAB),
Elsevier (<http://www.info.sciverse.com/scopus/csab>)

Developing Scholarship: the Future for the Nursing Profession in Lithuania

Nursing Education, Research, & Practice (NERP) is a new journal established by the Lithuanian University of Health Sciences. Its aims and scope 'is to advance knowledge and disseminate research findings that are directly relevant to the practice of nursing and midwifery' and it 'publishes scholarly papers on all aspects of care in the nursing and midwifery professions, including theory, clinical practice and education, history, policy and administration, ethics and new technologies'.

This first Issue of the journal is also the first step on a journey of discovery, by the Editorial Committee, the University, present and future authors and most importantly practitioners, educators and managers who will be reading the journal and utilising its content to enhance their practice and ultimately the care they deliver to the patients or the education they deliver to their students. I am privileged to have been invited to write this first Guest Editorial by Editor and a driving force in the development and implementation of this new journal, Dr. Olga Riklikienė.

You will note that the title for this Editorial is focused on the topic of developing scholarship in relation to the future for the nursing profession in Lithuania. I shall contend that the focus of this new journal encapsulates the concept of scholarship in its aim and scope to promote the development of nursing and midwifery practice in Lithuania. Scholarship of course will mean different things to all of us according to our own professional practice in either academia or clinical environment. Rolfe [1] for example highlights what he considers could be a 'traditional understanding of scholarship' whereby it:

'might include the application of various methods of inquiry approved as 'scholarly' by the academic community, perhaps including critical commentary, philosophical speculation and debate, rhetorical and polemical argument, as well as primary and secondary empirical research. The term 'scholarship' would also, of course, describe the resultant body of work, which would have been available for scrutiny and critique and approved by academic peers'.

He draws here upon the seminal work of Boyer [2], who considered what the role of the 'professoriate' in academia should be, which according to

Starck [3] offered a challenging proposal at the time where he 'urged educators to enlarge the restricted view of scholarship as only research and publication, pointing out that in earlier times scholarship referred to a variety of creative work carried on in a variety of places, and its integrity was measured by the ability to think, communicate and learn'.

Boyer [2] had proposed that there should be four dimensions of scholarship, namely: discovery, integration, application and teaching.

Briefly **the scholarship of discovery** is linked to that of research and the discovery of new knowledge; **scholarship of integration** relates to the creation of synergies across disciplines where the knowledge from one discipline can either add to the body of knowledge in another or be integrated with it; **scholarship of application** resonates with the development of an evidence-based practice culture in nursing, whereby there is a focus on using research findings and developments in practice, and also a focus on the building and adding to the knowledge that is known in a discipline but that also benefits people or communities; **the scholarship of teaching** is where one could argue is where all the other three types are brought together in the expert knowledge of teaching and education of the teacher who then ensures its transition and shared experience with the student.

In my journey of discovery of Lithuanian nursing for the purpose of this editorial, I found examples of where these dimensions of scholarship have already emerged in scholarly publications, either by Lithuanian scholars themselves or by others who have undertaken to either research or comment on Lithuanian nursing profession issues. In the Lithuanian nursing and health profession community, **Dr. Olga Rilikienė** is one such scholar, with the publication of her evidence-based textbook on mentorship for nurses, which has now been recommended by the Lithuanian Scientific Board and can be used as a core text for nursing education programmes in Lithuanian Universities and Colleges; **Prof. Jūratė Macijauskienė**, Dean of the Faculty of Nursing at Lithuanian University of Health Sciences, is another scholar, who led the Lithuanian element of the

partnership in ENABLE, an EU funded project in 2004 (see <http://www.enableproject.org/>) looking at independent living and dementia, publishing the Lithuanian report and co-authored a number of articles; **Jolanta Toliušienė and Eimantas Peičius** [4] from Vilnius and Kaunas published an article that considered the changes in nursing ethics education in Lithuania, focusing on the various issues for an inter-disciplinary approach to ethical decision making in the curriculum and practice and lastly an inter-disciplinary paper published in the *Journal of Advanced Nursing* by **Vilija Malinauskienė et al.** [5] focused on health and well-being issues and hospital nurses.

Examples of other authors who have published papers related to scholarship and the development of nursing and nursing education in Lithuania are Karosas [6], Kapborg [7] and Trus et al [8].

It has become apparent in my journey to understanding the position of Lithuanian nursing, midwifery and other health professions that a journal such as *Nursing Education, Research, & Practice (NERP)* will be an invaluable addition to the development of all aspects of Boyer's dimensions of

scholarship, both for the experienced authors but most importantly for the future generation of nursing scholars in the Universities and in clinical practice. I am very privileged to be a part of this exciting and challenging development, brought about by a team of committed individuals who have excellent support at the highest levels of the Lithuanian academic community.

I would like to take this opportunity as a member of the International Editorial Advisory and Review Board to offer my congratulations to everyone who has been involved in engaging in and managing the launch of this new journal. From personal experience of undertaking, an identical initiative I can assure readers and the Editors that it is a challenging time, but that it is one of the most rewarding and enjoyable journeys to be experienced.

I wish you all every success for the future and to all Lithuanian nurses, midwives and health care professionals who will now have an opportunity to share their scholarship endeavours with the wider international health care community.

Karen Holland, MSc BSc (Hon) RN RNT (PhD student)

Research Fellow (Evidence-Based Nursing Education Innovation)
School of Nursing, Midwifery & Social Work
University of Salford
UK

Editor
Nurse Education in Practice (Elsevier)
Contact address: k.holland@salford.ac.uk

References

1. Rolfe G. Writing -up and writing-as: rediscovering nursing scholarship. *Nurse Education Today* 2009;29(8):816-820.
2. Boyer EL. *Scholarship reconsidered: priorities of the professoriate*. The Carnegie Princeton, New Jersey: Foundation for the Advancement of Teaching, 1990.
3. Starck P. Boyer's multidimensional nature of scholarship: a new framework for school of nursing. *Journal of Professional Nursing* 1996;12(5):268-276.
4. Toliušienė J, Peičius E. Changes in nursing ethics education in Lithuania. *Nursing Ethics* 2007;4(6):753-757.
5. Malinauskienė V, Leisyte P, Malinauskas R, Kietiklyte K. Associations between self-rated health and psychosocial conditions, lifestyle factors and health resources among hospital nurses in Lithuania. *Journal of Advanced Nursing* 2011; 7th June doi: 10.1111/j.1365-2648.2011.05685.x. [Epub ahead of print].
6. Karosas LM. Nursing in Lithuania as perceived by Lithuanian nurses. *Nursing Outlook* 1995;43:153-7.
7. Kapborg I. The nursing education programme in Lithuania: voices of student nurses. *Journal of Advanced Nursing* 2000;32(4):857-863.
8. Trus M, Suominen T, Doran D, Razbadauskas A. Nurses' perceived work-related empowerment in Lithuanian context. *Scandinavian Journal of Caring Studies* 2011;25:599-607.

Note

On a personal note, I have recently visited this wonderful country, experienced the wonderful hospitality of Lithuanian people in all areas of community life. I am also returning again, as a member of a large EU funded project team, (EmpNURS see <http://www.empnurs.eu/%20>) at the end of September and I am looking forward to meeting up again with colleagues in the Faculty of Nursing and the project team. It is a privilege to be part of both the project and the new journal development.

Development of the Nursing Profession in Pre-War Independent Lithuania (1918–1939): A Comparison Between Past and Present

Laima Karosas¹, Olga Riklikienė²

¹School of Nursing, Quinnipiac University, Connecticut, United States,

²Department of Nursing and Care, Medical Academy, Lithuanian University of Health Sciences, Lithuania

Key words: nursing; pre-war period of independence; Lithuania; comparison; historical inquiry.

Summary. Introduction. For Lithuanian nurses, knowledge of their own history should help them to better understand the origins of their discipline and the social and political forces that have shaped it. This article presents the evidence and discussion of changes in Lithuanian nursing that reflected the pre-war period from 1918 to 1939, which was then compared and contrasted to the present.

Methods. Historical inquiry was used to research and analyze written nursing history in Lithuanian libraries, archives, and smaller repositories. Research materials included documentary sources, books, and journals pertaining to nursing education and practice.

Findings. Between World War I and World War II, the Lithuanian nursing profession grew and, with some political maneuvering, was able to run its own affairs. Although primarily male physicians were in positions of authority, the career of Kazė Vitkauskaitė indicates that women could rise to administrative levels. Nurses were striving to improve both their training and working conditions through verbal discussions and professional organizations. By 1935, Lithuanian nurses were active and able to discuss health care issues locally, nationally, and internationally. They continued to refine their profession and struggled for increased recognition. However, increasing political tension in Europe from 1935 to 1939 began to slowly encroach upon the activities and plans of Lithuanian nurses.

Conclusions. Over the last decade, Lithuanian nursing has been rapidly evolving and racing to reclaim its place among nursing in Western countries. Historical inquiry revealed that several trends in asserting the nursing profession continue. While conditions for nursing students have improved, the working conditions for nurses are still suboptimal.

Introduction

After World War I, Lithuanians became independent from Czarist Russia and were busy rebuilding their country. They were free to govern themselves and develop a national infrastructure. Lithuanian nurses were also free to develop their profession, including the establishment of nurses' training and standards for practice.

The establishment and development of Lithuanian nursing from 1918 to 1939 is discussed. The particular era was studied and described in order to delineate the structure and organization of Lithuanian nursing before 1935 when worldwide political tensions began to increase. Unfortunately, few people thought it important to save records in Lithuania. This, coupled with losses of materials during World War II, resulted in adequate, though not abundant,

historical records. Little attention has been given to the history of Lithuania, as it is a small country with little political importance to the West.

Based on historical research methods, this publication provides Lithuanian nurses with a documented history of their profession during a critical period of development. More specifically, significant individuals and events that contributed to those developments were described.

For Lithuanian nurses, knowledge of their own history might help them to better understand the origins of their discipline and the social forces that have shaped it, and allow them to proceed with change. An incidental purpose of this study is to provide a basis for present and future comparison with nursing development in other Eastern European countries.

Correspondence to O. Riklikienė, Department of Nursing and Care, Medical Academy, Lithuanian University of Health Sciences, A. Mickevičiaus 9, 44307 Kaunas, Lithuania
E-mail: riklikiene@hotmail.com

Adresas susirašinėti: O. Riklikienė, LSMU MA Slaugos ir rūpybos katedra, A. Mickevičiaus 9, 44307 Kaunas
El. paštas: riklikiene@hotmail.com

Research Questions:

1. How did Lithuanian nurses structure their profession after World War I when Lithuania became independent of Czarist Russia, from 1918 to 1939?
2. What were the challenges to the nursing profession and what movements have been sustained until the present day?

Materials and Methods

Historical inquiry, used for this study, involves the selection of a topic that will provide a relevant contribution to the field, in this case a period of Lithuanian nursing history (1). History connects us with a heritage <...>; it serves as the collective memory of nursing accomplishments (2) and can guide the present and future (3). According to Church (4), history provides “a sense of identity, a sense of continuity, and a sense of unity.”

The parameters of this investigation – 1918 to 1939 – reflect the period after World War I when Lithuania became independent of Czarist Russia. A cumulative written nursing history in Lithuanian libraries, archives, and schools of nursing was not found by the principal investigator; therefore, this analysis of data describing the specified historical period was completed. The existence, location, and availability of materials were explored to ensure that this historical investigation was possible (1). Primary source materials, eyewitness accounts of events, as well as secondary source materials, descriptions, or reactions to someone else’s account of an event, were supplied and examined in the Antakalnis archives and the Martynas Mažvydas National Library, both located in Vilnius, Lithuania. Documents were retrieved through the assistance of a consultant from the Martynas Mažvydas National Library. There was no need for particular arrangements as there was free public access to the archives and to the Martynas Mažvydas National Library in Lithuania.

Historical inquiry involves the establishment of facts in order to describe and interpret selected, significant events. A historical fact is established when two independent primary sources concur or when one primary source and one secondary source concur without other opposing evidence. When only secondary sources are available, then only probability may be asserted (1, 5). In addition, the researcher must consider whether the primary sources contain bias. To accomplish that, tests for reliability and validity, known as internal and external criticism, are carried out. Internal criticism is concerned with an accurate interpretation of data to establish the truth. External criticism involves the trustworthiness and authenticity of documents (1, 3, 6). The materials housed in archives included official documents, re-

ords, correspondence, and journal articles pertaining to nursing education and practice and have already met the criteria for external criticism.

Each document reviewed was coded according to topic and date. One file contained a chronological order of events while another file contained information sorted by topic. The topical coding corresponded with the stated research questions for this study. The chronological coding of data facilitated linkages between events.

The researchers contrasted and compared the Lithuanian nursing profession in the pre-World War II era and the present. This analysis is useful for nurses to apply the insights gained through studying the past (7).

Findings and Their Interpretation

The Establishment of Lithuanian Nursing. The recorded history of Lithuanian nursing begins after World War I. From the late 18th century until 1918, Lithuania was part of the Russian Empire. The defeat of Russia by Germany in 1917 and the subsequent defeat of Germany by the western Allies in 1918 made it possible for Lithuania to regain its earlier independence (8–10).

During the period of Russian imperial domination, nurses’ training programs had been instituted in Vilnius, Lithuania, in 1895 and in Kaunas, Lithuania, in 1897. However, the true beginning of Lithuanian nurses’ education came with independence (11–13). Lithuania was eager to develop its own education programs. In 1919, while a program of higher courses was evolving into a university in Kaunas, the Red Cross organized nurses’ training courses (10, 14, 15). There was a shortage of nurses to care for the sick and wounded from World War I, and therefore, nurses’ training courses were sorely needed (14, 16).

Not all government administrators thought that nurses needed official training. Gusievas wrote that the *gailėstingos seserys* (sisters of mercy)¹ were a community, not a profession (17). They would teach each other to sacrifice themselves and serve humanity. This was in keeping with the predominant Christian ethic in Lithuania that encouraged caring, self-sacrifice, and suffering (18, 19). According to Baršauskienė and Rymeikytė, Christianity served to lower Lithuanian women’s status and tie them to their reproductive function (20). Women were expected to stay at home, bear and raise children. Single women without children fulfilled the female care giving function by caring for their relatives.

¹Nurses were known as “sisters of mercy” until Soviet occupation. These sisters of mercy were not religious nuns and were not affiliated with any religious order. They were known as sisters of mercy for the care and compassion they displayed toward the ill and infirm.

Lithuanian regional reports showed that nurses were economically at a disadvantage with no set working hours and low salaries in the early 20th century (21). Likewise, teachers' salaries in Lithuania were low (14, 22, 23). Women did hold nominal positions, but there was little power associated with them (24). For example, the appointment of Sofija Čiurlionienė to the League of Nations in 1929 ultimately never had a significant impact (25). In the workplace, nurses were seen as extensions of the physician's arm, and they followed physician's orders. Their role was to gather information, a tedious task consistent with women's work overall, and report it to the physician.

In fact, nursing education and practice were dominated by male physician educators and administrators. The first honorary director of the Red Cross nursing program in Kaunas, Lithuania, was Dr. Jonas² Šliupas, although his daughter, Dr. Aldona Šliupaitė was the actual director (15, 25–27). The six instructors in the first nurses' training course were physicians and only one was a female (15). The fact that Lithuanian nursing students learned from physicians was a drawback noted by the International Council of Nurses (14, 28).

Conditions for Lithuanian nurses in the first half of the 20th century were consistent with those in the West. During the same period in the United States, there was little thought of remuneration beyond room and board for the performance of one's duty (29). Nursing, as well as teaching, was an acceptable occupation for women who were expected to care for people, sacrifice themselves, and earn little. Many women chose nursing as an occupation outside the home simply because most had experience in caring for family members. Nursing in general, therefore, was a predominantly female occupation with low status and low salary (30–32).

Nurses' Training. From the establishment of nurses' training courses in Lithuania in 1919, the admission criteria for nurses' training included an eighth grade education, a certificate of good conduct, a health certificate, and being at least 18 years of age (10, 14, 28, 33). The first training courses were 4 months to 1 year long, but by 1923, nurses' training had been increased to two years. In addition, the education requirements for admission were also increased to the 10th grade (15, 28, 34, 35). Although medical education was established at the university level in 1922, nursing education remained based in medical schools until 1990 (9, 10, 25, 36, 37).

Lithuanian nursing students were not educated in the alternating periods of theory followed by practice but attended lectures after a full day of hospital work. In the Kaunas Red Cross nurses' training

program, tired Lithuanian nursing students listened to lectures on surgery, pediatric illness, anatomy, obstetrics, gynecology, neurology, and psychology given by physicians. All of the physicians were male excluding a female physician who lectured on gynecology (15). No further details were found regarding specific course work, practical experiences, or the influence of other countries in Lithuanian nurses' training.

After completing nurses' training, nurses were required to take an exam administered by the Lithuanian Red Cross Society (26). No record was found concerning what type of exam was given or who designed the exam. There was no official registration of those who completed nurses' training at that time. Registration by the Department of Health of the Ministry of the Interior was in place by 1929 (14, 28, 35). Nurses registered by the Lithuanian government were allowed to practice in Lithuania in any government institution. The requirements for registration included Lithuanian citizenship and nursing courses completed in Lithuania. Nurses' training completed in Russia was accepted until February 1918, when Lithuania regained its independence from Russia, and in Germany until January 1920, when the Klaipėda region was recovered from Germany. Nurses who completed their training elsewhere were eligible to work in Lithuania if they passed the Lithuanian nursing exams. A temporary work permit for one year was issued to nurses pursuing Lithuanian citizenship (38).

A woman desiring to be a nurse with full working rights in Lithuania needed to scrutinize the nurses' training programs available. Some organizations trained nurses, but the diploma they received was not recognized by the Department of Health. For example, the Jewish organization *Ozė* trained nurses, but they were not eligible for registration. Even though not all nurses qualified for the national registry, they were still able to work in private institutions or private duty (28, 35). These nurses were known as "sister-samaritans" and were eventually allowed to take the nursing exams (15). They were "invited" to go through official nurses' training courses and, thereby, become eligible for registration (14, 39). In essence, the invitation was not a choice, but a requirement if the sister-samaritans wanted to register themselves as nurses with the Lithuanian government. No information was found to clarify whether there was some credit given for prior practice.

The first census in 1923 revealed that in cities (Kaunas, Panevėžys, Šiauliai, and Ukmergė), there were 77.3 medical personnel³ per 10 000 population

²Dr. Šliupas' first name is given as Rokas in Monkutė-Janulionienė and as Jonas in "Lithuania."

³Nurses and midwives were also considered "medical" (medicinos) personnel, not "health care" (sveikatos apsaugos) personnel. There was no distinction between the discipline of nursing and the discipline of medicine. Anyone providing any type of health care service was considered "medical" personnel.

of which 52 were physicians. In rural areas, there were only 6.3 medical personnel per 10 000 population of which 5.2 were physicians (40). The actual number of physicians was 422 with 117 in Kaunas, 271 in country districts, and others in smaller towns (10). Nurses were grouped with feldshers⁴, midwives, dental technologists, and pharmacists under the title mid-level medical personnel. In 1923, the national registry contained 293 feldshers, 193 midwives, and 77 nurses. There were 39 hospitals with 1796 beds and 6 outpatient clinics (41). By 1929, the number of nurses had risen to 160 (28, 35). In 1939, the total number of mid-level personnel was reported as 2000 (42).

Statistics maintained in Lithuania regarding health care workers and institutions from 1918 and through the Soviet occupation were not clear. At times, nurses were separated from other health care workers, and at other times, they were not. In addition, not all areas of Lithuania were surveyed at the same time. Therefore, even though there are many figures available, they cannot be compared and contrasted accurately. It appears that Lithuanian health care officials had not devised a consistent system to collect health care information.

Working Conditions for Nurses. The conditions for both nursing students and nurses in the workplace were not good. Clinical practice sites for nursing students were in Lithuanian government institutions such as the Red Cross Hospital, State General Hospital, and University Children's Hospital, all being in Kaunas (28, 35). During the first 6 months of nurses' training, the students were on probation. They could be dismissed or choose to leave the nurses' training program voluntarily. Nursing students received full patient care assignments without full remuneration. Their days were prolonged by lectures in the evening. At the end of the program, they received diplomas in general nursing and public health (23).

There were no standard uniforms for graduate nurses in Lithuania, and most nurses continued to wear their student uniforms.⁵ Other nurses simply wore white lab coats over their street clothes. Until 1938, only one hospital in Kaunas required uniforms for its nurses (43). Nurses did not "graduate" into a different nursing uniform and did not benefit from the nursing uniform as a symbol of identification. In fact, graduate nurses were an extension of the student role in the hospital that differed only in the level of supervision and amount of remuneration.

In a letter to the Internal Affairs Minister, Gustaitienė discussed the risk of contracting infectious diseases, the lack of set working hours, dis-

tance traveled to work, and length of time needed to earn a pension as hazards of the nursing profession (22). She suggested that nurses should work only 20 rather than 25 years to qualify for a pension and that salaries should be increased. Most nurses lived a substantial distance away from hospitals as they could not afford apartments closer to hospitals. Vitkauskaitė noted that most nurses worked in hospitals and earned low salaries (23). Private duty for nurses was more lucrative, but not readily available and probably too expensive for the majority of people. Even so, nurses were in short supply in hospitals due to poor working conditions (16, 23).

Although registration was established in the 1920s in Lithuania, Gustaitienė noted that many hospitals hired midwives in nurse positions (44).⁶ She complained that registered nurses should be in these positions since they needed to earn a living as well and had more appropriate training. Obviously, not all hospitals viewed registration as a nurse as a prerequisite for a nursing position. Although there were guidelines established by the government, they were not enforced. The discipline of nursing with its harsh working conditions had a high turnover rate. It was not a difficult choice to leave nursing if a woman had another means of support. Vitkauskaitė reported to members of the International Council of Nurses on the status of nursing in Lithuania (23). She wrote that there were 298 registered nurses in Lithuania in January 1937. Of those registered, 200 were employed as nurses. The number of unregistered nurses was not reported. After two years of nurses' training, a Lithuanian nurse could change to midwifery training (45). Other nurses married and no longer worked in nursing although marriage did not automatically end their nursing careers (14). Marriage usually meant that another income to support the family was available; therefore, the married Lithuanian nurse usually chose to leave the difficult conditions of her job and remain at home. The typical Lithuanian nurse was single, without children and, once married, did not continue to work in nursing.

Male dominated professions benefited from higher status and greater remuneration than female ones. For example, Lithuanian army officers commanded large salaries, especially during the politically charged time from 1935. The fear of foreign occupation encouraged Smetona, then the President of Lithuania, to bolster the armed forces even though they were minute compared to the forces of Germany or the Soviet Union. In 1935, army officers received 785 Litai per month while industrial workers earned 100 Litai and teachers 200–300 Litai (9). Teachers' salaries were equivalent to those of

⁴Feldshers were similar to physician assistants and provided medical care primarily in rural areas.

⁵Student nurses wore blue dresses and white scarves on their heads.

⁶Midwives in Lithuania did not have to complete nurses' training before entering midwifery.

nurses who also earned between 200–300 Litai per month. In addition, nurses may have received living and meal allowances if the hospital's financial situation allowed for such extras (14, 23, 44). Comparatively, nurses were close to, but not at the bottom of the wage scale.

Specialties in nursing in chemical warfare, pediatrics, nutrition, and radiology began to appear in the 1930s. The course on chemical warfare was needed given the probability of hostilities in Europe. In Lithuania, the proper care of children was a high priority (46–49). There were also courses for nurses enabling them to specialize in nutrition (50). Another important area was radiology. The Lithuanian Red Cross held courses for those nurses who wanted to work in the newly emerging x-ray department (51, 52). Since Lithuanian nursing paralleled Western development up to World War II, promotion for Lithuanian nurses was, most likely, similar to promotion for nurses in the United States and moved the Lithuanian nurse further from her patients with less time spent at the bedside.

An Organization for Nurses. In addition to the establishment of nurses' training courses, two different plans for a nurses' organization were proposed in December 1921. One was a professional association and the other similar to a union. The Lithuanian Nurses' Association (LNA) was officially established in 1922 as a type of union for nurses (14, 15, 21, 53). The Red Cross representative, Dr. Alekna, stated that the Red Cross had wanted to organize a professional nurses' organization, but for unnamed reasons, failed to do so (53).

The goals of the LNA were to improve the material and spiritual lives of nurses (21, 23, 35). The members recognized the need to work for the good of all people, but also not to sacrifice their own health and well-being. Financially, the organization sought to assist unemployed, ill, retired, or married nurses in addition to working toward increased salaries for all. Legal advice was available to nurses. Continuing education was provided through lectures, conferences, classes, courses, and books. A work bureau was established to help with job placement.

The members of the LNA identified practice areas in need of improvement including infant mortality and control of infectious disease (53, 54). Lectures, programs, and dues brought in revenue for the LNA to continue with projects (14, 23, 28, 35, 54). The LNA hosted social gatherings and concerts to provide more cultural events for members. In addition, the organization owned a villa in the seaside town of Palanga and a restaurant in the town of Birštonas. Nurses could rent a room at a modest price, and both the villa and restaurant were a source of income for the LNA as well as a respite for nurses.

Through the LNA, nurses were able to attend an

international nursing school in London to further their knowledge in nursing practice and administration. The program lasted two years, and the Red Cross League provided scholarships to 3 Lithuanian nurses. The country of origin paid for travel expenses. Nurses arrived in London 4 or 5 months before entering the program to live with a family and learn English. Kazė Laurinavičiūtė, V. Monkutė, and Kazė Vitkauskaitė completed these courses, and Vitkauskaitė later became a leader in Lithuanian nursing (15).

International Cooperation. Lithuania's geopolitical position, between Soviet Russia and Germany, made the country's independence fragile in the 1920s and 1930s. Even cooperation with the other eastern Baltic countries proved difficult. However, cooperation among the nurses of Estonia, Latvia, and Lithuania was achieved with the formation of a committee of Estonian, Latvian, and Lithuanian nurses in 1925. These nurses reached out to each other shortly after each country reasserted its independence (14, 35, 55).

The purpose of the Baltic nurses' organization was to discuss professional questions and cooperate in raising the professional standards of nursing (55, 56). They discussed legislation and promoted registration based on minimum standards of education and experience. The Baltic nurses agreed that nursing theory and practice should be supervised by nurse instructors and not physicians. Students should have two years of training and be allowed to enter only after completing secondary school. They agreed to construct a curriculum with minimum standards for practice and to work toward its enforcement through legislation. Finally, they identified the need to educate themselves about different types of nursing, especially public health (56).

The Baltic nursing alliance formed in the mid 1920s continued until Soviet occupation of the Baltics in 1940. At a meeting of the alliance in 1938, the participants discussed nurses' training. The Lithuanian representative Kazė Vitkauskaitė, a school inspector and vice-president of the LNA at the time, presented information about a planned reorganization of nursing schools and an expansion to 3 years of study (14). However, admission criteria from 1935 to 1941 did not change significantly, and prospective students were still accepted after the 10th grade. There was a stated preference for those who completed secondary school (23, 57, 58).

The Lithuanian Red Cross Nurses' Society was finally established in 1936 (14, 23). The goals of the organization included raising nursing standards and facilitating visits to foreign hospitals (23). Other goals were similar to those of the Lithuanian Nurses' Association and included continuing education, social excursions, and annual meetings (15).

The LNA was reaching beyond its Baltic nurs-

ing partners. Before World War II, the LNA sought membership in the International Council of Nurses (ICN). Kazė Vitkauskaitė gave a report about Lithuanian nursing to the ICN in 1937. World War II and the subsequent Soviet occupation of Lithuania delayed the membership of Lithuanian nurses into the ICN for more than 50 years.

As Lithuania stood on the brink of war, health care suffered from a lack of nurses to care for patients and a limited understanding of what health care should be provided. War and competing regimes would stretch health care even further.

Discussion

The historical analysis of the Lithuanian nursing professional development showed that the period of independence between World War I and World War II resulted in significant change and advancement in nursing. The independence regained in 1990 again encouraged the advancement of many areas, especially in health and education. Health care reform begun in 1990 announced new health care principles – care delivery separated into three levels with priority to primary care and health promotion, establishment of the family physician institute, accessibility to care and its quality. The changes in the nursing profession were profound from the establishment of baccalaureate nursing studies at Kaunas University of Medicine (KUM) in 1990 to the establishment of a master's degree in nursing at KUM in 1999. With each graduating baccalaureate nursing class, the number of physician educators decreased as nurses successfully taught clinical topics. The nursing profession has continued to develop with the ability now for nurses to achieve a doctorate degree in nursing. In nursing education, nursing students are exclusively taught by nurses academically and experientially qualified as nursing faculty.

At the beginning of the last century, there were few levels of nurses' training, and the quality and recognition of diplomas were controlled by the Ministry of Health. Candidates for nurses' training between World War I and World War II (1918–1940) were chosen for their maturity, and a strong desire to pursue nursing as 18 was the minimal age to enter training. In comparison, today the European Union (EU) also sets the minimum age at 18 for commencing nursing studies in the directives for all EU countries such as Lithuania. Practice sites for Lithuanian nursing students continue to be in the largest state hospitals. However, in contrast, the conditions of nursing student learning have improved: most nursing programs are cyclic in that theory is separated from practice, which composes half of their education. Practice occurs in every course after theory is taught in order to evaluate theory and skills learned during the semester.

Despite changes in the quality of nursing educa-

tion, the attrition rate for nursing students reaches up to 20%, even for students in later courses. This forces nursing educators to find methods to select the most interested candidates and how to keep them motivated throughout their studies. Documentation about the probationary period for nursing students before World War II indicated that selection and retention were already areas of concern.

Historical documents showed that nursing did not have an identifying uniform before World War II. This did not change when Lithuania regained its independence in 1990. Nurses are free to choose their apparel for work. During Soviet occupation before 1990, the white lab coats or scrubs did not differ from physician or other health care personnel clothing. Florence Nightingale holding her lamp is a shining example of an international visual nursing identity. Lithuanian nursing, however, continues to lack a separate visual identity.

When comparing and contrasting nursing during Lithuanian independence before World War II and from 1990, there are similarities and differences in practice. In 2001, the Nursing Practice Law was passed, and starting in 2002, nurses were licensed and registered. As historical documents have shown, the foundation for licensure and registration was laid during Lithuanian independence before World War II. The struggle for professional recognition rather than the status of a vocation or volunteer work led to national recognition of nursing as a profession. The Nursing Practice Law ensures that only those who have a diploma in nursing are able to work as a nurse in Lithuania. This eliminated the Soviet tradition, still followed in the Russian Federation, in which medical students or elders with medical degrees work as nurses. The limitation of the title "nurse" to only those educated in nursing is vital to establish a nursing identity and unequivocal status among health care providers.

It is noteworthy to mention that the relationship between nurses and midwives remains sensitive. During various periods, nurses and midwives have found themselves with the same clinical responsibilities for a number of reasons. The decrease in births as well as the aging of the Lithuanian population has decreased the employment prospects for midwives. Unlike nurse midwives, for example in the United States, who first become nurses and then go on for specialization in midwifery, Lithuanian midwives may have some courses that overlap with nurses, but they do not hold a nursing degree. Their degree is in midwifery only.

Specialization in nursing has been discussed from the beginning of the nursing profession and how to advance knowledge in a narrow area such as physician specialists are able to do. The only difference in discussion surrounds the types of specialization, which in turn, most likely flow from

population characteristics and needs. Currently, in Lithuania, the 4 nursing specialties of anesthesia and intensive care, public health, mental health, and operating room nursing are able to ensure the quality of nursing care.

The professional nursing movement continued to develop in the same venues as in the pre-World War II period with nurses participating in professional organizations. The LNA continues to unite a large number of nurses. The goals and activities are the same as those announced at the beginning of the last century: unification of nurses, defense of work, economic, and social rights, representing the interests of nurses and national and international representation for Lithuanian nurses. The LNA renewed its membership in the International Council of Nurses in 1994. The Baltic nurses' group continues their work, and each year, the presidents of the national organizations arrange meetings. However, the social privileges that LNA provided the last century were associated with Soviet traditions, and the LNA has not continued these privileges since 1990.

As in the previous century, Lithuanian nursing remains a female profession, which, undoubtedly, has decreased its visibility and weakens its political influence. Although nursing salaries remain low and, as in 1935, do not differ from teachers' salaries, recognition from colleagues and public opinion of the nurs-

ing profession are consistently positive and quickly improving. The positive image of nursing is associated with higher education, increased skills and competence, and changes in responsibility. The current challenge for the Lithuanian government, however, is to maintain qualified nurses in Lithuania, increase salaries, and improve the physical and psychological work conditions for nurses. The growing number of health care personnel who emigrate for better salaries and work conditions internationally will soon lead to a catastrophe in health care resources.

Conclusions

The study of the nursing profession in Lithuanian between the two world wars and the comparison of events and trends with present day confirm that historical events occur in a spiral, i.e., repetitively. Regardless of the characteristics of the nursing profession today, the concerns, successes, and challenges have a similar trajectory. Hence, they can be compared, contrasted, evaluated, and even projected. The historical study of professional development not only satisfies scientific curiosity, but also confirms and ensures a continuation of profession's basic principles.

Statement of Conflict of Interest

The authors state no conflict of interest.

Slaugos profesija tarpukario nepriklausomoje Lietuvoje (1918–1939): praeitis ir dabartis

Laima Karosas¹, Olga Riklikienė²

¹Quinnipiac universiteto Slaugos fakultetas, Konektikutas, Jungtinės Amerikos Valstijos,

²Lietuvos sveikatos mokslų universiteto Medicinos akademijos Slaugos ir rūpybos katedra

Raktažodžiai: slauga, tarpukario nepriklausomybės laikotarpis, Lietuva, palyginimas, istorinis tyrimas.

Santrauka. *Įvadas.* Remiantis istorinėmis žiniomis apie slaugos raidą Lietuvoje, galima tiksliau nustatyti šios profesijos ištakas bei įvertinti profesijos raidą lėmusius socialinius veiksmus.

Tyrimo tikslas. Atskleisti esmines slaugytojų profesinės plėtotės kryptis ir pokyčius, vykusius tarpukario Lietuvos nepriklausomybės laikotarpiu, t. y. 1918–1939 m. To laikotarpio slaugos profesijos pokyčiai sugretinti ir palyginti su pastarųjų dešimtmečių pasiekimais.

Tyrimo medžiaga ir metodai. Rašytiniai šaltiniai, rasti bibliotekose, archyvuose ir slaugytojų mokyklose, analizuoti remiantis istorinio tyrimo metodologija. Tyrimo medžiagai naudoti dokumentai, žurnalai ir knygos, susijusios su slaugytojų rengimu bei praktika.

Rezultatai. Tarpukario nepriklausomybės laikotarpiu slaugos profesija vystėsi ir, nepaisant tam tikrų politinių jėgų įtakos, profesinės savireguliacijos lygis buvo gana aukštas. Nors gydytojai vyrai buvo užėmę svarbiausius valdančius postus, slaugytojos Kazės Vitkauskienės karjera rodo, kad moterys taip pat gebėjo pakilti iki administravimo lygio. Slaugytojos siekė gerinti mokymo ir darbo sąlygas, diskutuodamos profesinių organizacijų vardu. 1935 m. jos aktyviai diskutavo sveikatos priežiūros klausimais vietiniu, nacionaliniu bei tarptautiniu lygmeniu, siekdamos didesnio profesinio pripažinimo ir pažangos. Deja, didėjanti politinė įtampa Europoje 1935–1939 m. nutolino slaugytojų planus ir darbus dešimtmečiams.

Išvados. Per pastaruosius dešimtmečius Lietuvos slauga sparčiai vystėsi ir rado bei įtvirtino savo vietą tarp Vakarų šalių. Istorinis tyrimas atskleidė slaugos profesijos vystymosi kryptis, kurios yra ir turi būti tęsiamos. Slaugos studentų mokymosi aplinka tapo labai gera, tačiau praktikuojančių slaugytojų darbo sąlygos turėtų būti palankesnės.

References

- Fitzpatrick ML. Historical research: the method. In: Munhall PL and Boyd CO, editors. *Nursing research: a qualitative approach*. New York: NLN; 1993. p. 359-71.
- Munhall PL, Boyd CO. *Nursing research: a qualitative perspective*. 2nd ed. New York: National League for nursing press; 1993.
- Wood GL, Haber J. *Nursing research: methods, critical appraisal and utilization*. 3rd ed. St. Louis: Mosby; 1994. p. 271-3.
- Church OM. Historiography in nursing research. *West J Nurs Res* 1987;9(2):275-9.
- Sarnecky MT. Historiography: a legitimate research methodology for nursing. *ANS Adv Nurs Sci* 1990;12(4):1-10.
- Lusk B. Historical methodology for nursing research. *Image J Nurs Sch* 1997;29(4):355-9.
- Holloway I, Wheeler S. *Qualitative research in nursing*. 2nd ed. Oxford: Blackwell; 2002. p. 236-8.
- Damušis A. Lithuania against Soviet and Nazi aggression. Chicago: American Foundation for Lithuanian Research; 1998.
- Eidintas A. Restoration of the State. The nation creates its State. The presidential republic. Ultimatums, the president and the public. In: E. Tuskenis, editor. *Lithuania in European politics: The years of the first republic, 1918–1940*. New York: St. Martin's Press; 1997. p. 11-58, 111-38, 177-86.
- Eversole HO. Medical education in the Baltic States (RG 6.1, Series 1.3, box 44, folder 516). New York: Rockefeller Archive Center; 1923.
- Andriūšis A. Pasiruošimas ir veiklos įpatimai viduriniojo medicinos personalo Vilniuje (1774–1915), 1995. (Preparation and activity of mid-level medical personnel in Vilnius (1774-1915).) Unpublished manuscript.
- Mažoji lietuviškoji tarybinė enciklopedija. (The small Lithuanian Soviet encyclopedia.) Vol. 2. Vilnius: Mintis; 1968.
- Tarybų Lietuvos enciklopedija. (Soviet Lithuania's encyclopedia.) Vol. 3. Vilnius: Vyriausioji enciklopedijų redakcija; 1987.
- Jakubaitienė N. Be praeities nėra ateities. (Without a past there is no future.) *Šalpusnis* 1998;5(17):5-6.
- Monkutė-Janulionienė V. Su artimo meile širdyje. (With heartfelt love for those dear.) *Sveikatos apsauga* 1989;3(399):37-9.
- Hospital Director Kauno Respublikinė Ligoninė to Health Department Director, July 9, 1923, LCVA, Fondas 380, ap. 4, byla 161.
- Gusievas V. Pagelbinio medicinos personalo reikalai. (Assistive medical personnel affairs.) *Medicina* 1930;11(1):65-6.
- Bunting S, Campbell JC. Feminism and nursing: historical perspectives. *Adv Nurs Sci* 1990;12(4):49-62.
- Colliere MF. Invisible care and invisible women as health care providers. *Int J Nurs Stud* 1986;23(2):95-112.
- Baršauskienė V, Rymeikytė G. A historical perspective on the role of women. In: LaFont S, editor. *Women in transition: voices from Lithuania*. New York: State University of New York Press; 1998. p. 23-8.
- Kazanskaitė O. Lietuvos gailėstingųjų seserų suvažiavimas. (Lithuania's sisters of mercy conference.) *Medicina* 1922a;3(2):111.
- Gustaitienė B. Internal Affairs Minister, November 15, 1937, LCVA, Fondas 380, ap. 4, byla 161.
- Vitkauskaitė K. Report of Associated National Representatives – Lithuania. In: ICN National Report. London: ICN; 1937. p. 63-4.
- LaFont S. Introduction. In: LaFont S, editor. *Women in transition: voices from Lithuania*. New York: State University of New York Press; 1998. p. 1-21.
- Lithuania. Unpublished manuscript. Yale University, manuscripts and archives. 1946. Series I, Box 136, Folder 1626.
- Kronika. (Chronicle.) *Medicina* 1920;1(8):255-6.
- Kronika: sveikatos reikalai. (Chronicle: health affairs.) *Medicina* 1923a;4(5):263.
- Current events of international interest. Lithuania. *ICN* 1929;4:180-1.
- Reverby S. A caring dilemma: womanhood and nursing in historical perspective. In: Brown P, editor. *Perspectives in medical sociology*. Illinois: Waveland Press; 1989. p. 470-85.
- Carter H. Confronting patriarchal attitudes in the fight for professional recognition. *J Adv Nurs* 1994;19(2):367-72.
- Pinch WJ. Feminine attributes in a masculine world. *Nurs Outlook* 1981;29(10):596-9.
- Porter S. Women in a women's job: the gendered experience of nurses. *Sociol Health Illness* 1922;14(4):510-27.
- Kronika. (Chronicle.) *Medicina* 1922;3(6-7):382.
- Kronika: sveikatos reikalai. (Chronicle: health affairs.) *Medicina* 1924;6(7):54.
- Roušarova J. History of nursing in the Baltic States. Unpublished manuscript. Yale University, Manuscripts and Archives. 1934. Series I, Box 136, Folder 1626.
- Fitzgerald JG, Smith CE. Preventive medicine, public health and hygiene, a survey of undergraduate teaching (RG 6.1, Series 1.1, box 30, folder 354). New York: Rockefeller Archive Center; 1936-7.
- Šeškevičius A. Personal communications. January 16, 2001.
- Įstatymai ir taisyklės. (Laws and rules.) *Medicina* 1940;21(4):338.
- Kronika: sveikatos reikalai. (Chronicle: health affairs.) *Medicina* 1923b;4(8):440.
- Tolišūtė A. Medicinos darbuotojai Lietuvoje iki 1940 metų pagal visuotinių gyventojų surašymų duomenis. (Medical workers in Lithuania to 1940 according to the residential written list.) *Sveikatos apsauga* 1968;10(154):34-6.
- Kronika: gydytojų reikalai. (Chronicle: physicians' affairs.) *Medicina* 1923;4(6-7):370.
- Zaikauskas M. 1940–1960 metai. (1940–1960 years.) *Sveikatos apsauga* 1960;7(55):3-14.
- Kaip rengėsi gailėstingosios seserys. (How sister of mercy used to dress.) *Šalpusnis* 1998;5(17):4-5.
- Gustaitienė B. To Health Department Director. January 19, 1937, LCVA, Fondas 380, ap. 4, byla 161.
- Kronika: medicinos felčerių ir akušerių reikalai. (Chronicle: medical fieldshers' and midwives' affairs.) *Medicina* 1933;14(4):263-4.
- Ingelevičius V. Sveikatos globos srities valdytojas. (Health Care Department manager.) Meeting minutes, April 22, 1942, LCVA, Fondas 380, ap. 4, byla 161.
- Kronika: draugijos, kongresai, įvairenybės. (Chronicle: associations, congresses, various.) *Medicina* 1932;13(12):842.
- Kronika: sveikatos reikalai. (Chronicle: health affairs.) *Medicina* 1931a;12(6):42.
- Kronika: sveikatos reikalai. (Chronicle: health affairs.) *Medicina* 1931b;12(8):562.
- Sveikatos apsaugos liaudies komisariato veikla. (Activities of the people's health care department.) *Medicina* 1941;22(3):467-9.
- Kronika: draugijos, ligoninės. (Chronicle: associations, hospitals, various.) *Medicina* 1930;11(12):884.
- Kronika: gailėstingųjų seserų reikalai. (Chronicle: sisters of mercy affairs.) *Medicina* 1939;20(2):163.
- Kristutienė J. Pirmasis Lietuvos gailėstingųjų seserų suvažiavimas. (The first Lithuanian sisters of mercy conference.) *Lietuva* 1922;1(823):2.
- Kazanskaitė O. Gailėstingųjų seserų sąjunga. (Sisters of mercy association.) *Medicina* 1922b;3(8):446.
- Kronika: draugijos, susirinkimai, suvažiavimai, parodos. (Chronicle: associations, meetings, conferences, shows.) *Medicina* 1925;6(5):374.
- Meeting of the committee of nurses of the Baltic States. *ICN* 1929;4:69-71.
- Kronika: gailėstingųjų seserų reikalai. (Chronicle: sisters of mercy affairs.) *Medicina* 1935;16(5):389.
- Kronika: medicinos seserų reikalai. (Chronicle: medical sisters affairs.) *Medicina* 1941;22(4):556.

Received 23 June 2011, accepted 24 August 2011
 Straipsnis gautas 2011 06 23, priimtas 2011 08 24

A Comparison of Maternal Knowledge About Breastfeeding in Baby-Friendly Maternity Hospital and not as yet Baby-Friendly Hospital

Alina Vaškelytė, Diana Šimčikaitė, Rūta Butkevičienė

Department of Nursing and Care, Medical Academy, Lithuanian University of Health Sciences, Lithuania

Key words: breastfeeding; maternal knowledge; first-time mothers; Baby-Friendly Hospital.

Summary. *The aims* of this study were to compare the level of knowledge about breastfeeding between the first-time mothers who gave birth in a Baby-Friendly Hospital and those who gave birth in a hospital that pursues this accreditation and to establish the intended duration of breastfeeding among the first-time mothers.

Material and Methods. A descriptive and exploratory design was used. A study questionnaire was developed by researchers. The study was conducted at the Unit of Obstetrics, Hospital of the Lithuanian University of Health Sciences (HLUHS), that is accredited as a Baby-Friendly Hospital and the Kaunas P. Mažylis Maternity Hospital that pursues this type of accreditation. A total of 146 first-time mothers took part in this study.

Results. Having compared the level of knowledge about breastfeeding between mothers who gave birth in both hospitals, it was found that a significantly larger proportion of women who gave birth at the Kaunas P. Mažylis Maternity Hospital had correct knowledge about the composition of human breast milk. A significantly larger proportion of women who gave birth in the HLUHS had correct knowledge that in case of swollen breasts, a woman should breastfeed an infant more frequently. The majority (83.2%) of respondents pointed out that their level of knowledge about breastfeeding was closely or partly related to their decision to breastfeed an infant.

Conclusions. After comparison of knowledge about breastfeeding between women who gave birth in both the hospitals, significant differences in responses were established in case of two questions. There was no significant difference in responses among respondents who gave birth in both hospitals with respect to the women's decision on the intended duration of breastfeeding.

Introduction

Breastfeeding could be seen as the final stage of pregnancy. During this process by means of breastfeeding, a little individual lays the foundations for the future physical, mental, and spiritual health. It is extremely important for an infant to receive everything that is beneficial and required for his or her well-being from the first days of life (1–3).

One of the main provisions of the Lithuanian Health Program adopted in 1998 by the Parliament of the Republic of Lithuania aims to promote the natural way of infant feeding and to achieve an exclusive breastfeeding rate of 40% for infants aged from 4 to 6 months (2). According to data of the World Health Organization, in Lithuania, infants up to 6 months of age were breastfed by 26.6% of mothers in 2002, by 31% in 2004, and by 34.8% in 2006. The number of mothers who breastfeed their newborns up to 6 months of age continues to increase; however, this number could be higher as it

is, for instance, in Albania or Moldova where 84% to 87% of mothers continue to breastfeed newborns until the age of 6 months (4).

Relevance of This Study. The protection, promotion, and support of breastfeeding are among top public health priorities throughout the world. Low breastfeeding rates and early discontinuation of breastfeeding have significant health and social consequences for women, children, the community, and the environment. It results in greater expenditures on national health care provision and increases inequalities in health (5). The Baby Friendly Hospital Initiative makes significant efforts to promote breastfeeding globally through the Ten Steps to Successful Breastfeeding program. This program mainly focuses on informing and training mothers about various aspects of breastfeeding. Children born in a baby-friendly health facility are more likely to be breastfed for a longer time (6) and a positive effect on a number of parameters as an increased rate

Correspondence to A. Vaškelytė, Department of Nursing and Care, Lithuanian University of Health Sciences, A. Mickevičiaus 9, 44307 Kaunas, Lithuania. E-mail: alina_v@med.kmu.lt

Adresas susirašinėti: A. Vaškelytė, LSMU MA Slaugos ir rūpybos katedra, A. Mickevičiaus 9, 44307 Kaunas
El. paštas: alina_v@med.kmu.lt

of in-hospital exclusive breastfeeding, mothers and babies' health, maternal knowledge about the necessary measures in Baby-Friendly Hospitals (7). In Lithuania, eight hospitals were accredited as Baby-Friendly Hospitals.

To increase breastfeeding duration, it is a high priority that all health professionals who are in contact with women provide consistent breastfeeding information to assist and encourage women to continue breastfeeding. However, some researches indicate that medical staff lacks sufficient breastfeeding knowledge for their clinical role (8) or have insufficient counseling skills (9). In Lithuania, quite a few studies were dedicated to research of knowledge on infant feeding among health care professionals, pregnant women, and mothers after delivery (10, 11). However, there has been no extensive research on whether and in what way the women's knowledge about the natural way of infant feeding and intentions to breastfeed are related to the accreditation of a hospital where women give birth. After establishing what kind of knowledge is lacking among mothers, health care professionals would be able to provide this type of knowledge and to expect longer duration of breastfeeding in Lithuania.

The aims of this study were to compare the level of knowledge about breastfeeding between first-time mothers who gave birth in a maternity ward accredited as a Baby-Friendly Hospital and those who gave birth in a hospital that pursues this accreditation and to establish the intended duration of breastfeeding among first-time mothers.

Material and Methods

A descriptive and exploratory design was used. The study was conducted at the Unit of Obstetrics, Hospital of Lithuanian University of Health Sciences (HLUHS) Kauno Klinikos, that is accredited as a Baby-Friendly Hospital and the Kaunas P. Mažylis Maternity Hospital that pursues this type of accreditation. A total of 146 first-time mothers took part in this study: 113 from the Unit of Obstetrics of the HLUHS and 33 from the Kaunas P. Mažylis Maternity Hospital. The youngest mother was 18 years old, and the oldest was 38. The mean age of women was 26.3 (SD, 3.9) years. Respondents residing in a city accounted for 78.1% (n=114) of all participants, 13.0% (n=19) of respondents resided in small towns, and 8.9% (n=13) in rural areas. Of the 146 women who took part in this study, more than half (53.4%, n=78) had higher university level education.

Selection Criteria. The respondents meeting the following criteria were invited to participate in the study:

- First-time mothers;
- Women who delivered healthy newborns and remained together in the same ward;

- Women after 3 to 7 days after delivery;
- Women who could read and write in Lithuanian.

Data were collected between August and October 2009. All first-time mothers who gave birth at the Unit of Obstetrics of the HLUHS and at the Kaunas P. Mažylis Maternity Hospital and met the selection criteria were invited to participate in this study. Researchers provided the respondents with information about this study, answered their questions, obtained their consent to participate in the study, and agreed on time that was convenient for respondents to complete the study questionnaire. The questionnaire was made by researchers based on the literature analysis and their practical experience. The questionnaire consisted of 35 questions.

In the Unit of Obstetrics of the HLUHS, 136 women were invited to participate in this study, and 120 agreed to take part. A total of 113 questionnaires were returned completed and used for further analysis. The response rate was 89.7%.

In the Kaunas P. Mažylis Maternity Hospital, 38 women were invited to participate in this study, and 35 agreed to take part. Thirty-three questionnaires were returned completed and used for further analysis. The response rate was 86.8%.

A comparison between two groups was performed by applying the χ^2 test for independent samples. The reliability of statistical results was assessed by applying a 0.05 level of significance. A permission to conduct the study was granted by the Bioethics Center of the Lithuanian University of Health Sciences (former Kaunas University of Medicine). All the respondents signed informed consent form. The data were collected anonymously.

Results and Discussion

Maternal Knowledge About Breastfeeding. This study aimed to establish whether there are differences in responses to questions on breastfeeding between first-time mothers who gave birth at the HLUHS and those who gave birth at the Kaunas P. Mažylis Maternity Hospital. Respondents were given several statements and then asked to choose the correct statement. An analysis of findings revealed that in case of assessment of respondents' knowledge on differences in composition between human breast milk and infant formula, the correct statement that human breast milk has a sufficient amount of water was indicated by 97% (n=32) of women who gave birth at the Kaunas P. Mažylis Maternity Hospital and by 79.7% (n=90) of women at the HLUHS ($\chi^2=5.2$; $P<0.05$) (Fig. 1).

More than 90% of women who gave birth in both the hospitals were aware of the fact that human breast milk did not cause infant allergy. It is interesting to note that according to the findings of the study by Kudzytė, only 24.4% of physicians knew

that infants could not be allergic to human breast milk (12).

A correct statement that in case of swollen breasts, a woman should breastfeed an infant more frequently was indicated by a significantly larger proportion of women who gave birth in the HLUHS than by those who gave birth at the Kaunas P. Mažylis Maternity Hospital (69.9% versus 39.4%; $\chi^2=10.2, P<0.05$) (Fig. 2).

More than half of respondents who gave birth at the Kaunas P. Mažylis Maternity Hospital had no knowledge on how to treat swollen breasts. According to the findings of the study by Markūnienė (2003), 35% of women were incorrectly advised by physicians that they should drink less if they had swollen breasts (13). Therefore, it may be assumed that during this study, women either did not receive any information or were misinformed on breast care.

Nearly one-third of respondents in both groups, namely 30.1% (n=34) of women who gave birth in the HLUHS and 27.3% (n=9) of respondents at the Kaunas P. Mažylis Maternity Hospital, were aware of the fact that they ought to continue breastfeeding their infant as well as supplement complementary food up to 2 years of age and beyond. However, 42.5% (n=48) of women who gave birth at the HLUHS and 39.4% (n=13) of respondents at the Kaunas P. Mažylis Maternity Hospital were of the opinion that it was sufficient to continue breastfeeding an infant up to 1 year of age (Fig. 3).

A study by Finnish researchers (2010) reported that childbearing parents need more information about ways to increase lactation and reasons to start complementary feeding (14). According to the findings of other studies, only one-third of health care professionals knew that breastfeeding combined with complementary food should last until an infant is two years of age or longer (12, 15). Consequently, this might be one of the reasons why women have only as much knowledge on the recommended duration of breastfeeding as they are informed by health care professionals.

An analysis of benefits of breastfeeding revealed an interesting fact that a significantly larger proportion of women with higher university level education, namely 74.4% (n=58), chose the correct statement that there is a low probability of becoming pregnant while breastfeeding ($\chi^2=16.1, P<0.05$) (Fig. 4).

The findings of this study demonstrated that respondents had insufficient correct knowledge about breastfeeding and its health benefits to the infant and the mother. One of the reasons explaining this situation, which is also supported by the findings of other researchers, is that health care professionals themselves have either little knowledge or not necessarily correct knowledge about breastfeeding

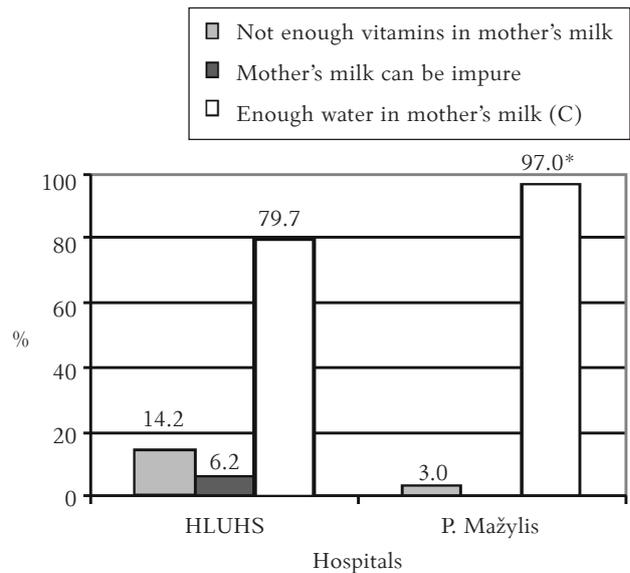


Fig. 1. Knowledge on the composition of human breast milk * $P<0.05$, compared with the Lithuanian University of Health Sciences (HLUHS). C, correct answer.

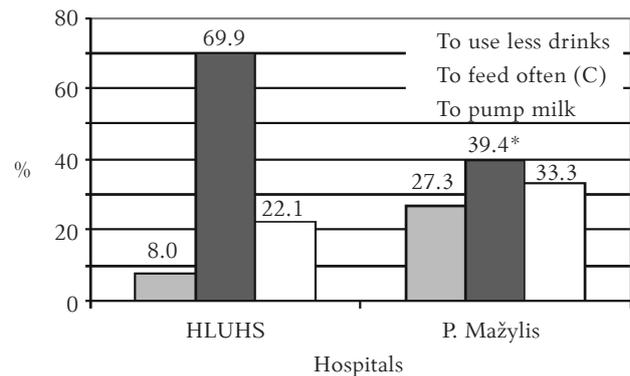


Fig. 2. Knowledge on breast care after childbirth * $P<0.05$, compared with the Hospital of Lithuanian University of Health Sciences (HLUHS). C, correct answer.

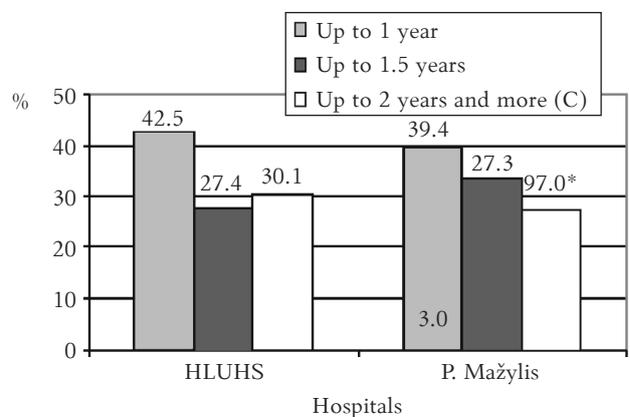


Fig. 3. The duration of infant breastfeeding with complementary food C, correct answer.

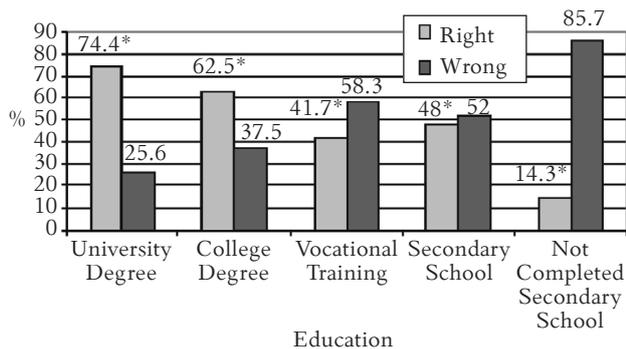


Fig. 4. Relationship between women's education and the choice of the correct statement on breastfeeding benefit for women's health

*P<0.05, compared with wrong answers.

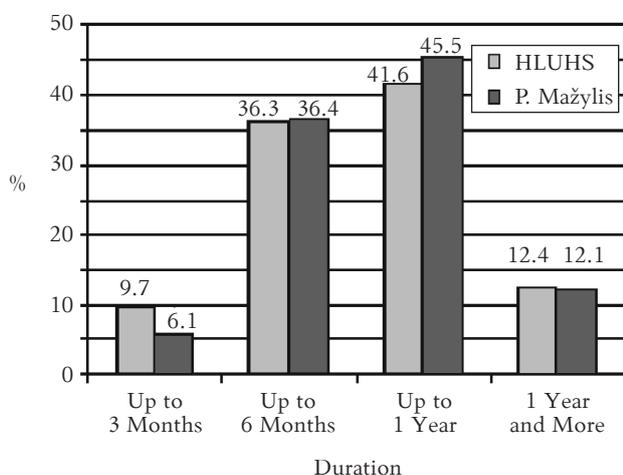


Fig. 5. Intended duration of breastfeeding

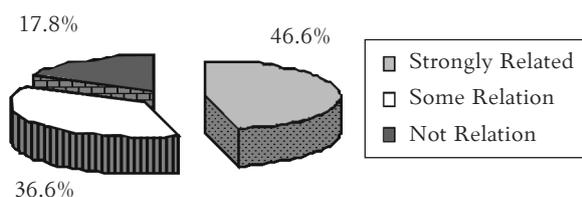


Fig. 6. Distribution of respondents' answers to the question, "Does the duration of breastfeeding depend on your knowledge about breastfeeding"

(10, 12). Therefore, it may be presumed that women are not sufficiently informed about breastfeeding during pregnancy and after delivery. A study done in India (2010) found that of the 945 respondents, only 212 (22.4%) were advised by the multipurpose health worker on the benefits of breastfeeding (16).

The Intended Duration of Breastfeeding. A similar proportion of women who gave birth in both the hospitals intended to breastfeed their infants up to

6 months of age: 36.3% (n=41) in the HLUHS and 36.4% (n=12) in the Kaunas P. Mažylis Maternity Hospital. The same proportion of women who gave birth in both the hospitals intended to breastfeed their infants for longer than 12 months (12.4%, n=14, in the HLUHS and 12.1%, n=4, at the Kaunas P. Mažylis Maternity Hospital) (Fig. 5).

The findings of studies done by other researchers show that in Lithuania in 2005, infants up to 6 months of age were breastfed by 30.5% of mothers, and every tenth mother breastfed her infant up to 12 months of age. A significantly larger proportion of mothers with higher education had longer duration of exclusive breastfeeding (17, 18).

This study aimed to establish whether the opinion of first-time mothers on the duration of breastfeeding was influenced by their knowledge about the natural way of infant feeding. According to the findings, 46.6% (n=68) of women indicated that their knowledge was closely related to their decision to breastfeed their infant longer, 36.6% (n=52) of respondents pointed out that their knowledge was partly related to their decision, and 17.8% (n=26) of women stated that their decision was not influenced by their knowledge (Fig. 6).

A Baby-Friendly Hospital that aims at practical implementation of the Ten Steps to Successful Breastfeeding Program makes significant efforts to ensure that all health care professionals employed at this type of hospital have sufficient theoretical knowledge and practical skills to encourage women who just gave birth to choose breastfeeding as the best way of infant feeding. Family physicians and obstetricians are responsible for motivating pregnant women to attend maternity classes and read relevant literature on breastfeeding. Findings of this study revealed that women had insufficient knowledge about breastfeeding; therefore, it may be assumed that health care professionals did not provide them with knowledge and information on this matter. It has to be noted that 83.2% of women pointed out that their knowledge about breastfeeding was closely or partly related to their decision to breastfeed; therefore, it is essential to seek that women should have sufficient knowledge on this matter and be able to make an informed decision to breastfeed an infant up to 2 years of age or more.

Conclusions

Comparison of the knowledge about breastfeeding between mothers who gave birth in the HLUHS that is accredited as a Baby-Friendly Hospital and those who gave birth in the Kaunas P. Mažylis Maternity Hospital that pursues this type of accreditation showed that a significantly larger proportion of women who gave birth at the Kaunas P. Mažylis Maternity Hospital had correct knowledge about the composition of human breast milk. A signifi-

cantly larger proportion of women who gave birth in the HLUHS had correct knowledge that in case of swollen breasts, a woman should breastfeed an infant more frequently. In case of the assessment of other knowledge about breastfeeding, no significant differences were found.

There was no significant difference in responses among respondents who gave birth in both the hos-

pitals with respect to the decision on the intended duration of breastfeeding. The majority (83.2%) of respondents pointed out that their level of knowledge about breastfeeding was closely or partly related to their decision to breastfeed an infant.

Statement of Conflict of Interest

The authors state no conflict of interest.

Moterų žinios apie žindymą Naujagimiui palankios ligoninės vardą turinčioje ir jo dar siekiančioje ligoninėse

Alina Vaškelytė, Diana Šimčikaitė, Rūta Butkevičienė

Lietuvos sveikatos mokslų universiteto Medicinos akademijos Slaugos ir rūpybos katedra

Raktažodžiai: žindymas, moterų žinios apie žindymą, pirmą kartą gimdanti moteris, Naujagimiui palanki ligoninė.

Santrauka. *Tyrimo tikslas.* Palyginti pirmą kartą gimdžiusių moterų žinias apie žindymą Naujagimiui palankios ligoninės vardą turinčiame gimdymo stacionare ir ligoninėje, siekiančioje šio vardo, bei nustatyti pirmą kartą gimdžiusių moterų ketinimo žindyti savo kūdikius trukmę.

Tyrimo medžiaga ir metodai. Tyrimas buvo atliekamas Lietuvos sveikatos mokslų universiteto ligoninės (tuometinių Kauno medicinos universiteto klinikų) (LSMUL), kuriai yra suteiktas Naujagimiui palankios ligoninės vardas, Akušerijos skyriuje ir Kauno P. Mažylio gimdymo namuose, kurie tokio vardo siekia. Tyrime dalyvavo 146 pirmą kartą pagimdžiusios moterys. Tiriant buvo naudojama tyrėjų parengta anketa, kurią sudarė 35 klausimai. LSMUL Akušerijos skyriuje dalyvauti tyrime sutiko 120 moterų. Atsako dažnis – 89,7 proc. Kauno P. Mažylio gimdymo namuose dalyvauti tyrime sutiko 35 moterys. Atsako dažnis – 86,8 proc.

Tyrimo rezultatai. Teisingą teiginį, jog motinos piene pakanka vandens, pažymėjo 97,0 proc. (n=32) Kauno P. Mažylio gimdymo namuose ir 79,7 proc. (n=90) LSMUL gimdžiusių moterų ($\chi^2=5,2$) (p<0,05). Tai, jog esant išbrinkusioms krūtims, moteris turėtų dažniau žindyti kūdikį, pažymėjo reikšmingai didesnė dalis LSMUL 69,9 proc. (n=79) nei Kauno P. Mažylio gimdymo namuose 39,4 proc. (n=13) gimdžiusių moterų ($\chi^2=10,2$) (p<0,05). 30,1 proc. (n=34) LSMUL ir 27,3 proc. (n=9) Kauno P. Mažylio gimdymo namuose gimdžiusių moterų žinojo, jog reikėtų tęsti kūdikio maitinimą motinos pienu kartu su papildomu maistu iki dvejų metų ir ilgiau. Reikšmingai didesnė dalis moterų, turinčių aukštąjį universitetinį išsilavinimą – 74,4 proc. (n=58) dažniau pasirinko teisingą atsakymo variantą, jog žindyvei pastoti yra maža tikimybė ($\chi^2=16,1$) (p<0,05). 36,3 proc. (n=41) LSMUL ir 36,4 proc. (n=12) Kauno P. Mažylio gimdymo namuose gimdžiusių moterų ketino žindyti kūdikius iki 6 mėn. amžiaus.

Išvados. Lyginant LSMUL, kuriai yra suteiktas Naujagimiui palankios ligoninės vardas, ir Kauno P. Mažylio gimdymo namuose, kur šio vardo siekiama, gimdžiusių moterų žinias apie žindymą, nustatyta, kad reikšmingai didesnė dalis Kauno P. Mažylio gimdymo namuose gimdžiusių moterų žinojo apie motinos pieno sudėtį. Reikšmingai didesnė dalis moterų, gimdžiusių LSMUL, žinojo, jog, pabrinkus krūtims, jos turėtų dažniau žindyti kūdikį. Vertinant kitas moterų žinias apie žindymą, reikšmingų skirtumų nustatyta nenustatyta. Moterų apsisprendimas dėl ketinimo žindyti savo kūdikius trukmės reikšmingai nesiskyrė tarp abiejuose stacionaruose gimdžiusių moterų. 83,2 proc. tyrimo dalyvių nurodė, jog jų turimos žinios apie žindymą susijusios su apsisprendimu dėl kūdikio maitinimo krūtimi.

References

- Chijenas V, Tamelienė R, Markūnienė E. „Naujagimiui palankios ligoninės“ iniciatyvos įtaka žindymo trukmei ir vaikų sergamumui. (The impact of baby friendly hospital initiative of the duration of breastfeeding and children morbidity.) Lietuvos akušerija ir ginekologija 2006;9(1):22-8.
- LR sveikatos apsaugos ministerija. Kūdikių ir mažų vaikų žindymas. (Breastfeeding of babies and young children.) Metodiniai nurodymai. Vilnius: Respublikinis mitybos centras; 2005.
- Tamelienė R. Naujagimiui palankios ligoninės iniciatyva
- moterų ir naujagimių tėvų žinios apie maitinimą krūtimi. (Baby friendly hospital initiative women's and newborns fathers knowledge about breastfeeding.) Sveikatos stiprinimas ligoninėje – 10 metų patirtis: X nacionalinė Sveikatą stiprinančių ligoninių konferencijos medžiaga. Kaunas; 2005 m. spalio 20 d. Kaunas: UAB „Aera Nostra“; 2005. p. 72.
- World Health Organization Regional Office for Europe, WHO/Europe's statistical databases, data sets and links to useful external databases [online]. Available from: URL: <http://www.euro.who.int/hfad>. Accessed October 20, 2008.
- Cattaneo A, Macaluso A, Mario SD. Protection, promotion

- and support of breast feeding in Europe: a blueprint for action. EU conference on Promotion of Breast Feeding in Europe [Dublin; June 18, 2004]. Available from: URL: <http://www.iblce-europe.org/Download/Blueprint/Blueprint%20Lithuanian.pdf>. Accessed November 7, 2008.
6. Merten S, Dratva J, Ackermann-Liebrich U. Do baby-friendly hospitals influence breastfeeding duration on a national level? *Pediatrics* 2005;116(5):705-8.
 7. Abolyan LV. The breastfeeding support and promotion in Baby-Friendly Maternity Hospitals and Not-as-yet Baby Friendly Hospitals in Russia. *Breastfeed Med* 2006;1(2): 71-7.
 8. Brodribb W, Fallon A, Jacson C, Hegney D. Breastfeeding and Australian GP registrars – their knowledge and attitudes. *J Hum Lact* 2008;24(4):422-30.
 9. Arts M, Geelhoed D, De Schacht C, Prosser W, Alons C, Pedro A. Knowledge, beliefs, and practices regarding exclusive breastfeeding of infants younger than 6 months in Mozambique: a qualitative study. *J Hum Lact* 2011;27(1): 25-132.
 10. Buinovskienė S, Levinienė G, Petrauskienė A. Pirminės sveikatos priežiūros specialistų veiklos, skatinant kūdikių žindymą, vertinimas. (The evaluation of knowledge and activities of primary health care specialists in promoting breastfeeding.) [master's thesis]. Kaunas: KMU; 2006.
 11. Jakevičiūtė J, Gulbinienė J. Nėščiąjų įgyjamos žinios gydymo įstaigose apie sveikatos ir kasdieninių įpročių pokyčius. (Knowledge concerning health and everyday habits changes obtained by pregnant woman in medical institution.) *Sveikatos mokslai* 2008;6(18):1994-9.
 12. Kudzytė J. Natūralaus maitinimo propagavimo projekto Kauno medicinos universiteto klinikose įgyvendinimo rezultatai. (Results of Natural Feeding Project Promotion at the Hospital of Kaunas University of Medicine.) *Sveikatos stiprinimas ligoninėje – 10 metų patirtis: X nacionalinė Sveikatą stiprinančių ligoninių konferencijos medžiaga*. Kaunas; 2005 m. spalio 20 d. Kaunas: UAB „Aera Nostra“; 2005. p. 36-7.
 13. Markūnienė E. Medicininiai, psichologiniai ir socialiniai Sveikatą stiprinančių ligoninių konferencijos medžiaga. Kaunas; 2005 m. spalio 20 d. Kaunas: UAB „Aera Nostra“; 2005. p. 36-7.
 14. Laantera S, Pietila AM, Polkki T. Knowledge of breastfeeding among pregnant mothers and fathers. *J Perinat Neonatal Nurs* 2010;24(4):320-9.
 15. Levinienė G, Petrauskienė A, Tamulevičienė E, Samulevičienė E, Kudzytė J, Labanauskas L. Pirminės sveikatos priežiūros specialistų žinių ir veiklos, skatinant kūdikių žindymą, įvertinimas. (The evaluation of knowledge and activities of primary health care specialists in promoting breastfeeding.) *Medicina (Kaunas)* 2009;45(3):238-47.
 16. Garg R, Deepti SS, Padda A, Singh T. Breast feeding knowledge and practices among rural women of Punjab, India: a community-based study. *Breastfeeding Med* 2010;5(6): 303-7.
 17. Bartkevičiūtė R, Barzda A, Stukas R, Vingras A, Abaravičius J. Kūdikių išimtinio žindymo trukmė ir jai įtakos turinčių veiksnių tyrimas. (Research of infants' exclusive breastfeeding duration and that influencing factors in Lithuania.) *Vissuomenės sveikata* 2007;36:21-5.
 18. Kaminskienė V. Kūdikių žindymo skatinimo iniciatyvos Lietuvoje. (Promotion of breastfeeding initiative in Lithuania.) *Lietuvos bendrosios praktikos gydytojas* 2009;8(6-8): 424-6.

Received 30 June 2011, accepted 7 July 2011

Straipsnis gautas 2011 06 30, priimtas 2011 07 07

Suicide Risk Factors and Prevention in Cancer Patients

Jurgita Matuizienė¹, Giedrė Bulotienė²

¹Department of Nursing, Faculty of Health Care, University of Applied Sciences, Vilnius,

²Department of Physical Medicine and Rehabilitation, Institute of Oncology, Vilnius University, Lithuania

Key words: suicide; cancer patient; suicide risk; prevention.

Summary. Generally suicide is defined as a voluntary intentional action, on occasion – as an impulsive, sudden and not planned act. Since 1993, Lithuania has had the highest suicide rates in the world among men and topped the ranking of women's suicide rates in Europe.

Despite promising progress in oncology health care services, the data of foreign authors indicate suicide being more prevalent among cancer patients than among the general population. At this moment, data on the incidence of suicide among cancer patients in Lithuania are not available.

The aim of the literature analysis was to identify the main suicide risk factors and consider aspects significant to the prevention of suicide in cancer patients.

Material and Methods. The review was based on the recent literature obtained through a PubMed search (covering period from February 2001 to January 2011). During the first screen, 483 potentially eligible citations were identified, and 35 articles met the eligibility criteria for this review and were retrieved.

Results. In various literature sources a described about 60 suicide risk factors. Depression has been identified as the main and most prevalent suicide risk factor, whereas cases of other mental pathology have been regarded as less common. Experienced symptoms such as pain, dyspnea, or reduced physical activity play a significant role in the risk of suicide. Tumor localization and post-diagnostic period are also influential on suicide risk. Suicide is induced by demographic, social, and economic factors both in cancer patients and the general population. A long-term and regular care, corresponding to the needs of patients at risk, must be available and patients' close people should be involved. However, medical staffs, working with cancer patients, do not feel very strong in assessing and managing patients' psycho-emotional problems, among them suicide intentions. In some studies it was vindicated that poor psychological knowledge and lack of consulting skills of medical staff improves suicidal risk of the patients, so it is crucial that every health care specialist could assess suicidal risk and react effectively.

Conclusion. Cancer patient's suicide should be characterized as an interdependent network of numerous, diverse circumstances rather than an isolated cause. As no single factor is universally causal, no single intervention will prevent all suicides. United, easily applied, and patient-orientated system for the evaluation of suicide risk of cancer patients is crucial improving psycho-emotional health of cancer patients.

Introduction

Suicide (lat. *sui*, oneself, + *caedere*, to kill) is a purposive, intentional self-murder or self-destruction. Suicide is generally understood as a voluntary and deliberate action and on occasion – as an impulsive, sudden, and not planned act. Another phenomenon sometimes resembling suicide is parasuicide, or quasi-suicide. It is a manipulative act, consciously aiming for sympathy, benefit, etc., blackmailing close people and other persons. Until the 18th century, suicide had been related to melancholy and partially tolerated by society. In the 20th century, suicide was defined as a deviation from a

normal mental state but caused not only by mental pathology (1). Suicide is a multifaceted act, significant from the point of view of an individual and society. It is not a mere mental health problem but generally, a serious issue of health care (2).

In Lithuania, death rate from external causes is 156.4 per 100 000 population, whereas the EU average is 42.4 per 100 000. In Lithuania, high rates of self-harm include excessive alcohol consumption and careless driving, but suicide is one of the most prevalent external reasons of death in our country. Since 1993, Lithuania has had the highest suicide rates in the world among men and topped the rank-

Correspondence to J. Matuizienė, Vilniaus kolegijos Sveikatos priežiūros fakultetas, Didlaukio 45, 08303 Vilnius, Lithuania
E-mail: prakt.mokymo@spf.viko.lt

Adresas susirašinėti: J. Matuizienė, Vilniaus kolegijos Sveikatos priežiūros fakultetas, Didlaukio 45, 08303 Vilnius
El. paštas: prakt.mokymo@spf.viko.lt

ing of women's suicide rates in Europe. Mortality rates caused by suicide are about twice as high in Lithuania as in the majority of the developed European countries (3, 4). Worldwide a million people, i.e., 16 per 100 000, commit suicide annually (3–5).

However, it should be noted that the situation in Lithuania has been changing and suicide rates have been decreasing. The incidence of suicide was 40.2 per 100 000 population in 2004, 38.6 in 2005, 30.4 in 2006, 30.9 in 2007, 33.1 in 2008, and 33.4 in 2009 (4). This favorable tendency could have been influenced by a number of various factors. Despite the fact that the establishment and implementation of a united, scientifically based suicide prevention program is still problematic, the mental health care system has been changing in Lithuania. The foundation of mental health centers has brought assistance closer to the inhabitants. Prevention programs have also played an influential role in reducing the suicide rates. Moreover, public attitudes have been changing: a person with a mental disorder is less stigmatized and more confident in seeking assistance (2).

The data of international studies indicate that suicide is more prevalent among *cancer patients* than in the *general population*. Research performed by Japanese scientists showed that 35% of suicides had cancer (6). However, there are people, including medical staff, who consider suicide as a justifiable and rational decision for a cancer patient who is confronted with strong emotional or physical pain (6, 7). The identification of patients at suicide risk and the determination of factors conducive to suicide are very important in the care of cancer patients (6).

The aim of this article was to analyze literature data, identify the main suicide risk factors, and review suicide prevention in cancer patients. This review is based on recent literature data obtained through a search in the PubMed using the keywords "cancer patients suicide." All scientific articles covering the period from February 2001 to January 2011 were included. During the first screen, a total of 483 potentially eligible references were identified. Then references involving children, studies on suicide gene therapy, case reports, and opinion pieces were excluded. A total of 81 citations were identified during the second screen as relevant for full-text screening. Of these, 46 basic science studies, editorials, and abstracts were excluded, and 35 articles met the eligibility criteria for this review and were retrieved.

Risk Factors of Suicide. Various literature sources describe about 60 suicide risk factors (8), with mental pathology being the main and most prevalent factor. The majority of suicides had previous diagnoses of mental disorders, with depression being most common (45%–80%) (6, 9–12) and psycho-

sis and specific identity disorders being less common (2). Every second depressive patient attempts to commit suicide at least once in his/her life, and approximately every sixth person becomes a suicide victim (1, 9, 13). Therefore, suicide risk in such patients is 3.5–4.5 times greater than among patients with other mental disorders and 22–36 times greater than in the general population (1). Oncologic disease is one of the most common death causes in Europe and Lithuania, with mental health problems being one of its clinical aspects – mental disorders are more prevalent among cancer patients compared with the general population (14–16). About 30% of all oncology patients experience pathological adjustment reactions, and 17%–25% develop mental disorders, with depression being the most common among them, as already mentioned (14–18). In cancer patients having suicidal thoughts, advanced age and severe depression have been identified as the main suicide risk factors (13). Almost 25% of patients with disseminated cancer are diagnosed with moderate or severe depression (14–17). Research carried out in the Netherlands found that suicide risk was four times greater among patients who declared a depressive and sad mood than those without such declaration (19). It should be noted that about 80% of psychological and psychiatric problems remain undiagnosed and patients are not provided with assistance in this regard. One of the reasons may be the patients' reluctance to declare their problems, assuming they are not worth the attention of medical staff. Health care specialists may also lack self-confidence in diagnosing depression in cancer patients, leading to undiagnosed problems. A consistent system needs to be established to ensure early diagnosis of depression in cancer patients.

While feelings of fear, desperation, and guilt experienced by cancer patients are disruptive and have a negative effect, physical complaints cannot be ignored. Once somatic symptoms were eliminated from the evaluation criteria, the occurrence of depression declined from 42% to 24%. Therefore, specialists who assume causes to be psychological are not always correct – somatic symptoms are significant in cancer patients' depression (8, 15, 20). The majority (88%) of cancer suicides had a diagnosis of severe physical disability (11).

Chronic noninfectious diseases including cancer are classified among factors inducing self-destructive behavior and increasing suicide risk from several to some tens of times. Often patients with chronic diseases experience many physical, psychological, and social problems (1, 6, 18, 21). They may be overwhelmed by denial, resistance, and despair, experience fear about the course of disease and limited treatment opportunities, and increasing socioeconomic problems (2). On the one

hand, international research indicates a tendency for suicide reduction among cancer patients (19); on the other hand, scientists in the United States state that cancer patients commit suicide twice as often (31/100 000) as representatives of the general population (16/100 000) (22). Analysis carried out in the United Kingdom showed that every twelfth cancer patient had suicidal thoughts at least once in two weeks (16). Less than one-third (22%–30%) of patients with disseminated cancer claim desiring a hastened death and considering suicide (14–17). Paradoxically, patients undergoing intensive treatment are not prone to commit suicide. That may be because intensively treated patients are usually more frequently hospitalized and patients, having agreed on radical treatment, may be more active and more optimistic participants in the treatment process (23). Data collected during hospitalization demonstrated that feelings of despair were among the factors having a direct association with the incidence of suicide (1, 24, 25). Suicide risk is greatly increased by somatic diseases that cause strong pain, other physical complaints, and functional disorders (21). With increasing pain, the patient's condition worsens, depression deepens or develops, the probability of chronic depressive disorders increases, physical activity is reduced, every-day efficiency decreases, usage of pain medications with opium increases, and the number of visits to doctors increase (16, 25). The development of mental disorders is often enhanced by somatic diseases and results in a vicious circle: the emergence of conditions of depression, anxiety, or psychosis is frequently followed by drug and alcohol abuse (8, 26). In more than half of suicides, alcohol dependence and abuse of psychotropic substances are found. Both directly and because of troubled family relationship, excessive alcohol consumption has a negative influence on mental health and a direct effect on suicide (27, 28).

One of the risk factors in cancer patients is time after diagnosis. An extremely intense crisis is experienced during the diagnosing process and the first days after confirmation of the diagnosis: patients experience doubt (Am I ill?), anxiety (What kind of disease is it, what is the prognosis, what are the chances to recover...) (23, 29). Research carried out in Australia showed that the first 3 months are the most dangerous, especially for the patients with a poor prognosis. Patients with the most pessimistic prognoses are most vulnerable (8, 29). In England, the highest standardized mortality rates were found during the first year after the diagnosis of oncologic disease (29), whereas American scientists reported an increased suicide risk remaining even for five years (22). Moreover, suicide risk increases after leaving the hospital. Research carried out in Japan reported that almost half of suicides were commit-

ted two weeks subsequent to patients' hospitalization. In discharged patients, suicide risk decreases if a patient had been hospitalized several times before. Social aid received during hospitalization may be considered an influential factor. Additionally, contact with other patients reduces the feeling of isolation (19, 23). Suicide risk significantly decreases with time. This may be due to gradual mental adjustment to the life-threatening disease, to be treated for the rest of one's life.

Suicide rates differ in accordance to tumor location. The highest suicide rates are found to be among patients with bronchus and lung cancer and slightly lower in cases with cancers of oral cavity, pharynx, and stomach (8, 22). These tumors are often related to smoking and alcohol consumption, and such a lifestyle – with depression. Men with a diagnosis of primary tumor of exact location were found to be at higher suicide risk. Such dependence was not observed among women (8).

Research indicates that sleep disorders also increase suicide risk (21, 30). Constant insomnia can provoke the emergence of a new depressive episode (30, 31); a direct link has been identified between cancer-related sleep disorders and fatigue experienced by patients (31). Sleep disorders such as difficulty getting to sleep, poor sleep quality, frequent and early awakening, shortened general sleep length, troublesome somnolence during the day are often present among cancer patients. From 25% to 50% of medications prescribed to cancer patients are sedatives. Such problems can last for months or even years and may not disappear after the treatment of cancer. Sleep disorders in cancer patients may emerge because of several reasons, such as cancer treatment, tumor growth and metastases, pain, fatigue, or depression (30, 31).

It has been noted that social factors also influence suicide. The most important factor among them is singleness: unmarried and divorced persons are more likely to become suicide victims (8, 13, 16, 21). This is related to the fact that patients living in families have better opportunities to receive prompt radical treatment and the family often provides better social support and financial security (21).

Changes in the economic situation, loss of social guarantees are important factors increasing suicide risk. In Lithuania, a complicated economic situation is caused by a gradual decline of general level of workforce activity, significant levels of poverty, especially in certain groups of the population (persons aged more than 65, inhabitants living in rural areas, the unemployed), large income disparities (in comparison to the EU averages), vast regional inequalities in the level and quality of life as well as social status, increasing demand for social and health care services, and insufficient accessibility and quality of

services (28). Additionally, unemployment is one of the socioeconomic suicide risk factors both in the general population and cancer patients (26). According to the data of Japanese scientists, one of the suicide risk factors is the fear to become a burden. Decreased functional capacity also influences the emergence of depression in cancer patients (14). In addition, oncologic diseases often evoke disability, unemployment, and limit social life (2). Moreover, discontent with social support can be the reason for the development of depression followed by its later outcomes (8).

Gender is also significant in the assessment of suicide risk. Males are found to be at higher suicide risk (1, 8, 22, 29, 32). Suicide rates are approximately three to four times higher among males than females; however, attempts to commit suicide are four times more frequent in females. Despite more cases of depression diagnosed among women than men, females are inclined to search for support among close people, friends, or health care system, which may result in fewer suicide cases among women (6, 32). The same tendencies have been identified among cancer patients (1, 6). During the analysis of male and female suicide aspects, it has been stated that the methods of suicide are different. Research carried out in Norway indicates that women usually poison or drown themselves, whereas men use shot-guns to commit suicide (33). A study performed in the United States also indicates that both cancer patients (63%) and representatives of the general population (42%) use firearms most often, with hanging being in the second place (16% and 24%, respectively) (11). In Lithuania, the most frequent method of suicide is hanging (about 90% of suicides) (29).

Contradictory results are obtained analyzing the influence of age on suicide attempts. A study carried out in the United Kingdom showed that age had no influence (16). In contrast, Australian research indicated that the incidence of suicide was higher in the age group of 40–49 year olds and among people who are aged more than 60 years of age (19). Suicide risk in cancer patients depends on their mental adjustment to the disease. Researchers in the United States reported that older cancer patients tolerated stress better and adjusted to life with cancer more easily. The research data indicated that aging was inversely correlated with patients' anguish and anxiety, and directly correlated with the quality of emotional life (7). However, certain studies show that an increase in the suicide rate with older age is not necessarily related to oncologic disease, as the suicide rate is higher in this age category in general (8, 11, 18).

Meteorological changes also have an effect on human health. There are some links between certain atmospheric phenomena (such as immedi-

ate increase in humidity and temperature) and the emergence of diseases. Various meteorological conditions increase the number of suicides, i.e., there is a higher suicide risk in hot season. Air temperature and the number of suicides have been registered in England and Wales for 10 years on a daily basis. It has been proved that air temperature higher than 18°C is not a big but nevertheless a significant factor influencing suicide; in such cases, suicides are characteristically violent. The mechanism of the high temperature effect is not clear. Possibly, serotonin changes may play an influential role as serotonin concentration fluctuates during the year in cycles, reaching its lowest level in the summer months. During the pathoanatomic examination of suicides, low serotonin concentration has also been found (34).

Impulsive cases of deliberate self-harm (planned for less than 3 hours, committed in the presence of others and in quite open places) are less dangerous than long planned and secretly performed self-harm acts (21).

Intervention Principles of Suicide Prevention. Such preventive interventions could be classified as either "selective" or "indicated." Selective preventive interventions target individuals or subgroups of the patients with a higher than average risk of suicide. Indicated interventions target high-risk individuals, those in more immediate danger.

According to the data of research carried out in Sweden, nursing staff lacks skills to communicate with patients about death. According to nurses' behavior and their communication style, scientists have distinguished the following categories and sub-categories:

Staff members who talk with patients about death:

- try to listen to patients' experience in relation to death;
- hear out the patients and give their opinion on patients' thoughts;
- encourage patients to talk about death.

Staff members who avoid the topic of death in communication with patients:

- try to change the topic of the conversation;
- try to cheer the patients up.

The researchers found that the nurses' choice of one or another behavioral model, in most cases, was intuitive, trying to find the easiest way out of the situation. The majority of nurses were not sure how to communicate regarding death. Consequently, behavior and communication were determined not by the situation or patient's needs but by nurse's personal values, experience, and attitudes (35).

It is known that both doctors and nurses are not sufficiently prepared to communicate with patients at risk of suicide (18, 35). Multiple research analyses

indicate that insufficient knowledge about psychological assistance and consulting skills of medical staff increases suicide risk in cancer patients (36). Therefore, the ability to assess suicide risk and to provide an appropriate reaction is extremely important for medical staff (1, 18). In this aspect, oncology is a specific sphere. If a patient at a primary health care facility mentions suicide, he or she gets a psychiatrist's consultation or is hospitalized. Whereas the reactions of medical staff towards cancer patient, who talks about the desire for a hastened death, remains quite passive. A dilemma emerges because oncologic disease itself can be the cause of death (37).

There are limited opportunities to anticipate suicide. Short-term and simple methods that might help in foreseeing which patients are going to commit suicide do not exist. When assessing suicide risk, it is most important to evaluate reasons encouraging a patient to commit suicide and to apply timely preventive actions (21). In case of suspicion, it is necessary to show interest in a patient's mood, feelings such as sadness, fault, despair, disability, fear of dependence on others, and suicidal thoughts (15).

One should not fear to question patients about their intention to commit suicide (1, 15). It is mistaken to think that such questioning may encourage suicide (21). The most obvious warning signal is an open declaration of suicidal intentions or suicidal hints. Two-thirds of suicides reveal their contemplations in advance (1). It is also worth mentioning that denial of suicidal thoughts does not yet guarantee that a patient will not commit suicide. Sometimes patients do not reveal their experiences and intentions, feeling that close people will not support their suicidal thoughts (37). Open and sincere conversation with the patient is very helpful in assessing suicide risk factors and the significance of suicidal thoughts (21). Professional assessment of a psychiatrist is necessary for some patients; however, the majority of patients could be properly assessed by a nurse or doctor, having basic knowledge of this issue. An integrated system should be established enabling mental health care specialists to immediately receive such information in a written form (15).

It is essential to pay proper attention to identify and control depression when providing health care services for cancer patients and seeking to reduce suicide risk (8, 12, 13). This is one of the most important problems facing cancer patients. Depression control is especially complicated among older patients and patients with terminal cancer, as decisions have to be immediate. Therefore, early recognition of the first signs of depression is extremely important when seeking early management of the disorder (19, 38). Patients' complaints may also be aid in early recognition of depression and identifi-

cation of adjustment difficulties (14). It should be noted that older patients have more somatic complaints that they find difficult to define. Moreover, such patients are not willing to analyze their psychological and psychical problems. They also prefer medicinal means to reduce their complaints (18). According to data of some authors (18), cancer symptoms and side effects of treatment partially cover signs of depression, such as pain, anxiety, reduced sleep, weight loss, etc. A study carried out by Mitchell indicates that it helps to ask two questions to evaluate the probability of depression. Questions about sad mood and loss of interest show a high reliability in the assessment of depression: a sensitivity of 91% and a specificity of 86%. According to the same author, with high tempo health care service and big specialists' workload this could be an effective means for reducing depression and suicide risk among cancer patients (12, 39, 40).

Medical treatment is necessary for the majority of depressive patients. However, psychological support also has a huge impact on patients' recovery and condition (14, 15, 41). Lately, in spite of better accessibility to psychological consulting, only a few test results show a significant influence on the reduction of suicidal thoughts. Psychological consultation has to be immediate, continuous, and long-term, applied several times a week. According to some authors' data, psychotherapy should last for 3 months. Four psychotherapy components that are most topical for cancer patients have been distinguished: social support, especially in the case of group psychotherapy, management of emotional expression, rearrangement of cognitive function (restructuring), and strengthening powers to tackle difficulties. Research shows psychological support to be topical for patients with any form and stage of cancer (14, 15, 40, 41). In some research, new psychotherapy forms such as meaning-centered psychotherapy and dignity psychotherapy are recommended (14).

It is also recommended to involve people close to the patient to reduce psychosocial factors that increase suicide risk. On demand, the issues of accommodation and social support need to be considered. Access to tools needed for the commitment of suicide should be reduced. Individual, family, and marital psychotherapy aid to properly solve problems of interpersonal communication (21) ought to be provided.

Inside a person intent on suicide there is a "part" that desires to live. Medical staff should strive to strengthen this "part" in a person as well as discuss and emphasize factors for suicide prevention such as effective overcoming of previous crises, responsibility to family members, and religious beliefs. An agreement ("no self-harm") between medical staff and a patient helps to improve cooperation even

though it has not been shown to reduce suicide risk (21).

The desire for a hastened death is being more frequently discussed as a rational decision in oncology. Outcomes of unsuccessful treatment increase anxiety; a patient has no alternative or is unable to make decisions (33). A dilemma also emerges because of patient's complaints, changes in the quality of life and social role, and prognosis of the disease. This view may be strengthened by a prevailing estimation that oncologic disease implies strong suffering and unavoidably ending in death (6, 7). Therefore, the desire for a hastened death may also influence an unusual response in oncology (37).

Discussion

The relevance of suicide is well known in Lithuania; however, data on the *incidence of suicide among cancer patients* are scarce. The data from international studies indicate suicide being more prevalent among *cancer patients* than in the *general population*. Depression is the main and most prevalent suicide risk factor followed by less common factors – other mental pathology. Symptoms such as pain, dyspnea, or reduced physical activity play a significant role in the risk of suicide. Suicide risk is also influenced by tumor location. In cases of lung and bronchus, head and neck tumors as well as disseminated cancer, patients should get more attention for the prevention of the problem. The first months after the confirmation of oncologic diagnosis are most dangerous, especially for patients with poor prognoses. There is a second suicide increase after one year following diagnosis. The posthospitalization period is complicated as patients experience social isolation and increased need for social and psychological assistance.

There is a need for outpatient support services. Men as compared with women are at higher suicide risk. There is a need for the development of better gender norms and perhaps gender-specific scales designed to better differentiate psychological symp-

toms between men and women. Older single men should receive particular attention, as they are the most frequent suicides. When compared with young adults, older adults who commit suicide give fewer warnings to others, use more violent and potentially lethal methods to commit suicide, and apply those methods with greater planning and resolve. These findings suggest that preventive efforts instituted after the onset of a suicide attempt may be less successful with older, versus younger, adults.

Epidemiologic risk factors can only guide the evaluation of suicide risk in an individual patient. Good communication among all health care personnel involved in the treatment of a cancer patient is crucial. When patients report “sad mood” or “loss of interest in pleasurable activities,” or when they appear to be depressed, questions about death and suicide intention should always be asked. This is the most obvious way to anticipate the problem. Patients at suicide risk should be provided long-term, regular care and assistance. However, according to the data of international studies, medical staff is not always prepared to work in this sphere. Death and suicide are discussed intuitively, on the basis of previous experience and prevailing system of values among medical staff, but not in accordance with the individual patient's needs.

Conclusions

Suicide of cancer patients should be characterized as an interdependent network of numerous, diverse circumstances rather than depending on a single cause. As no single factor is universally causal, no single intervention will prevent all suicides. Development of a uniform, easily applied, and patient-oriented system for the evaluation of suicide risk in cancer patients is crucial for improving the psycho-emotional health of cancer patients.

Statement of Conflict of Interest

The authors state no conflict of interest.

Sergančiųjų onkologinėmis ligomis savižudybės rizikos veiksniai ir prevencijos priemonės

Jurgita Matuizienė¹, Giedrė Bulotienė²

¹Vilniaus kolegijos Sveikatos priežiūros fakulteto Slaugos katedra,

²Vilniaus universiteto Onkologijos instituto Fizinės medicinos ir reabilitacijos skyrius

Raktažodžiai: savižudybė, sergantysis onkologine liga, savižudybės rizika, prevencija.

Santrauka. *Įvadas.* Savižudybė suprantama kaip savanoriškas, iš anksto apgalvotas veiksmas, kartais – impulsyvus, nelauktas, neplanuotas poelgis. Nuo 1993 m. Lietuva pagal vyrų savižudybių skaičių pirmauja pasaulyje, o Europoje yra pirmoji ir pagal moterų savižudybes. Nors sveikatos priežiūros paslaugų progresas teikia daug vilčių sergantiesiems onkologinėmis ligomis, tačiau, užsienio autorių duomenimis, tokių pacientų savižudybės yra dažnesnės lyginant su savižudybėmis bendrojoje populiacijoje. Koks onkologinėmis ligomis sergančiųjų ligonių savižudybių skaičius Lietuvoje, šiuo metu nežinoma.

Tyrimo tikslas – analizuojant literatūros duomenis, išskirti pagrindinius savižudybės rizikos veiksnius bei apžvelgti onkologinėmis ligomis sergančių ligonių savižudybės prevencijos aspektus.

Medžiaga ir metodai. Literatūros šaltinių buvo ieškoma naudojantis „PubMed“ duomenų baze. Pirma- jame etape buvo atrinkti 483 straipsniai, 35 iš jų atitiko šio tyrimo tikslą ir buvo analizuojami.

Rezultatai. Įvairiuose literatūros šaltiniuose aprašoma apie 60 savižudybės rizikos veiksnių. Pagrindi- nis, dažniausiai pasitaikantis savižudybės rizikos veiksnys yra depresija, rečiau – kita psichikos patologija. Daug reikšmės savižudybės rizikai turėjo paciento baimė tapti našta kitiems ir neviltis. Svarbus vaidmuo savižudybės rizikai – patiriami somatiniai simptomai, pvz., skausmas, dusulys, sumažėjęs fizinis pajėgumas. Įtaką savižudybei daro ir naviko lokalizacija, laikas, praėjęs nuo diagnozės nustatymo. Tiek bendrojoje populiacijoje, tiek ir tarp onkologinėmis ligomis sergančių ligonių savižudybei įtakos turėjo demografiniai, socialiniai bei ekonominiai veiksniai. Savižudybės riziką turintiems pacientams turi būti teikiama ilgalaikė, reguliari, paciento poreikius atitinkanti pagalba, joje turėtų dalyvauti ir pacientų artimieji. Tačiau medikai, gydantys onkologinėmis ligomis sergančius ligonius, nėra gerai pasirengę atpažinti ligonių psichoemo- cines problemas ir jas valdyti. Kai kurių tyrimų duomenys rodo, kad nepakankamos medicinos personalo psichologinės pagalbos žinios ir konsultavimo įgūdžiai didina onkologine liga sergančių ligonių savižudybės riziką. Todėl labai svarbu, jog kiekvienas medikas sugebėtų įvertinti savižudybės tikimybę ir tinkamai reaguoti.

Išvados. Onkologinėmis ligomis sergančiųjų savižudybė dažniausiai sąlygota ne vienos priežasties, bet daugialypio jų komplekso. Kadangi savižudybės rizikai įtakos turi ne viena priežastis, negali būti ir visiems atvejams tinkamos prevencijos. Siekiant pagerinti sergančiųjų onkologinėmis ligomis ligonių psichoemocinę būseną, turi būti sukurta bendra, visiems sveikatos priežiūros komandos nariams lengvai praktiškai pritaiki- koma, individualius paciento poreikius atitinkanti savižudybės rizikos vertinimo sistema.

References

1. Radavičius L. Teisiniai savižudybės aspektai. (Legal aspects of suicide.) *Psichiatrijos žinios* (Vilnius) 2007;3-4(45-46): 34-6.
2. Spoletini I, Gianni W, Caltagirone C, Madaio R, Repetto L, Spalletta G. Suicide and cancer: Where do we go from here? *Crit Rev Oncol Hematol* 2011;78(3):206-19.
3. Gerasimavičiūtė V, Gurevičius R. Mirtingumo nuo išorinių priežasčių ir savižudybių dinamika rytų Baltijos šalyse 1996–2007 metais – segmentinės regresinės analizės priva- lumai. (Time trends of mortality from external causes and suicide in Baltic States in 1996–2007 – the advantages of join point line regression.) *Visuomenės sveikata* (Vilnius) 2009;1(44):27-36.
4. Mortality ratio. From Lithuanian Statistics [interactive]. Available from: URL: <http://www.db1.stat.gov.lt/statbank/SelectOut/PxSort.asp?file=7370&PLanguage=0&MainTable=M3010603&MainTablePretext=Mirusi%C5%B3j%C5%B3%20skai%C4%8Dius&potsize=842011>. Accessed Ja- nuary 21, 2011.
5. Suicide prevention (SUPRE) from WHO [interactive]. Available from: URL: http://www.who.int/mental_health/prevention/suicide/suicideprevent/en/index.html. Access- ed January 21, 2011.
6. Akechi T, Okamura H, Nakano T, Akizuki N, Okamura M, Shimizu K, et al. Gender differences in factors associated with suicidal ideation in major depression among cancer patients. *Psychooncology* 2009;10:1587-93.
7. Nelson CJ, Weinberger MI, Balk E, Holland J, Breitbart W, Roth AJ. The chronology of distress, anxiety, and depres- sion in older prostate cancer patients. *Oncologist* 2009;14 (9):891-9.
8. Hem E, Loge JH, Haldorsen T, Ekeberg Ø. Suicide risk in cancer patients from 1960 to 1999. *J Clin Oncol* 2004;22: 4209-16.
9. Karlynn M, Levin TT, Yuelin Li, Kissane DW, Zabora JR. Mixed anxiety/depression symptoms in a large cancer co- hort: prevalence by cancer type. *Psychosomatics* 2009;50: 383-91.
10. Kessler RC, Berglund P, Burges G, Nock M, Wang PhS. Trends in suicide ideation, plans, gestures, and attempts in the United States 1990-1992 to 2001-2003. *JAMA* 2005; 293:2487-95.
11. Miller M, Mogun H, Azrael D, Hempstead K, Solomon DH. Cancer and the risk of suicide in older Americans. *J Clin Oncol* 2008;26:4720-4.
12. Scocco P, Marietta P, Tonietto M, Buono MB, Leo DD. The role of psychopathology and suicidal intention in pre- dicting suicide risk: a longitudinal study. *Psychopathology* 2001;33:143-50.
13. Akechi T, Okamura H, Kugaya A, Nakano T, Nakanishi T, Akizuki N, et al. Suicidal ideation in cancer patients with major depression. *Jpn J Clin Oncol* 2001;30 (5):221-4.
14. Akechi T, Okuyama T, Sugawara Y, Nakano T, Shima Y, Uchitomi Y. Major depression, adjustment disorders, and post-traumatic stress disorder in terminally ill cancer pa- tients: associated and predictive factors. *J Clin Oncol* 2004; 22:1957-65.
15. Lloyd-Williams M. Depression – the hidden symptom in advanced cancer. *J R Soc Med* 2003;96:577-81.
16. Walker J, Waters AR, Murray G, Swanson H, Hibberd JC, Rush WR, et al. Better off dead: suicidal thoughts in cancer patients. *J Clin Oncol* 2007;26(29):4725-30.
17. Lee ML, Bom JG, Swarte NB, Heintz APM, Graeff A, Bout J. Euthanasia and depression: a prospective cohort study among terminally ill cancer patients. *J Clin Oncol* 2008;23: 6607-12.
18. Weinberger MI, Roth AJ, Nelson CJ. Untangling the com- plexities of depression diagnosis in older cancer patients. *Oncologist* 2009;14:60-6.
19. Dormer NRC, McCoul KA, Kristjanson LJ. Risk of suicide in cancer patients in Western Australia, 1981–2002. *Med J Aust* 2008;188(3):140-3.
20. Wilson KG, Chochinov HM, McPherson CJ, LeMay K, Al- lard P, Chary S, et al. Suffering with advanced cancer. *J Clin Oncol* 2007;25:1691-7.
21. Jati A, Novotny P, Cassivi S, Clark MM, Midthun D, Patten CA, et al. Does marital status impact survival and quality of life in patients with non-small cell lung cancer? Observa- tions from the mayo clinic lung cancer cohort. *Oncologist* 2007;12:1456-63.
22. Misono S, Weiss NS, Fann JR, Redman M, Yueh B. Inci- dence of suicide in persons with cancer. *J Clin Oncol* 2008; 26(29):4705-7.

23. Lin HC, Wu CH, Lee HC. Risk factors for suicide following hospital discharge among cancer patients. *Psychooncology* 2009;18(10):1038-44.
24. Hofman M, Ryan LJ, Figueroa-Moseley DC, Jean-Pierre P, Morrow RG. Cancer-related fatigue: the scale of the problem. *Oncologist* 2007;12(1):4-10.
25. Mystakidou K, Parpa E, Katsouda E, Galanos A, Vlahos L. The role of physical and psychological symptoms in desire for death: a study of terminally ill cancer patients. *Psychooncology* 2006;15(4):355-60.
26. Aiello-Laws LB. Assessing the risk for suicide in patients with cancer. *Clin J Oncol Nurs* 2010;4(6):687-91.
27. Striano P, Zara F, Minetti C. Suicide-related events in patients treated with antiepileptic drugs. *N Engl J Med* 2010;363(19):1873-4.
28. Nacionalinės sveikatos tarybos nutarimas Nr. N-4 2009 m. spalio 28 d. Dėl psichikos sveikatos situacijos Lietuvoje. Savižudybės: pokyčiai, jų priežastys ir siūlomi sprendimai. (Resolution of National Health Counsel No. N-4; October 28, 2009. Due to Mental Health situation in Lithuania. Suicides: changes, reasons and solutions.)
29. Robinson D, Renshav C, Okello C, Moler H, Davis EA. Suicide in cancer patients in South East England from 1996 to 2005: a population based study cancer and suicide. *Br J Cancer* 2009;101:198-201.
30. Kohyama J. Sleep, serotonin, and suicide in Japan. *J Physiol Anthropol* 2011;30(1):1-8.
31. Roscoe JA, Kaufman ME, Matteson-Rusby SE, Palesh OG, Ryan JL, Kohli S, et al. Cancer-related fatigue and sleep disorders. *Oncologist* 2007;12(1):35-42.
32. Bjerkeset O, Romundstad P, Gunnell D. Gender differences in the association of mixed anxiety and depression with suicide. *Br J Psychiatry* 2008;192:474-5.
33. Leeman CP. Distinguishing among irrational suicide and other forms of hastened death: implications for clinical practice. *Psychosomatics* 2009;50:185-91.
34. Pilkauskienė A. Ar verta medikams ilgėtis karštos vasaros? (Should medics miss for hot summer?) *Lietuvos medicinos kronika (Vilnius)* 2009;28(110):35-9.
35. Wadensten B, Conden E, Wahlund L, Murray K. How nursing home staff deal with residents who talk about death. *Int J of Older People Nurs* 2007;2(4):241-9.
36. Kelly BJ, Burnett PC, Pelusi D, Badger SJ, Varghese FT, Robertson MM. Association between clinician factors and a patient's wish to hasten death: terminally ill cancer patients and their doctors. *Psychosomatics* 2004;45:311-8.
37. O'Shea EM, Lins CK, Penson RT, Seiden MV, Chabner BA, Lynch TJ. A staff dialogue on caring for cancer patients who commit suicide: psychosocial issues faced by patients, their families, and caregivers. *Oncologist* 2002;7:30-5.
38. Sharma SP. High suicide rate among cancer patients fuels prevention discussions. *J Natl Cancer Inst* 2008;100(24):1750-2.
39. Mitchell AJ. Are one or two simple questions sufficient to detect depression in cancer and palliative care? A Bayesian meta-analysis. *Br J Cancer* 2008;98:1934-43.
40. Kim YJ, Lee KJ. Relationship of social support and meaning of life to suicidal thoughts in cancer patients. *J Korean Acad Nurs* 2010;40(4):524-32.
41. Garand L, Mitchell AM, Dietrick A, Hijjawi SP, Pan D. Suicide in older adults: nursing assessment of suicide risk. *Ment Health Nurs* 2006;27(4):355-70.

Received 23 May 2011, accepted 30 June 2011
Straipsnis gautas 2011 05 23, priimtas 2011 06 30

Nurses' Attitudes Toward Advance Directives in Lithuania

Aurelija Blaževičienė¹, Eimantas Peičius²

¹Department of Nursing and Care, Medical Academy, Lithuanian University of Health Sciences, Lithuania,

²Department of Social and Humanitarian Sciences, Medical Academy, Lithuanian University of Health Sciences, Lithuania

Key words: advance directives; end-of-life care; nurses, attitudes; knowledge.

Summary. The aim of this article was to reveal the preliminary trends in the attitudes of professional nurses toward advance directives in Lithuania as well as to address some of the key ethical issues in end-of-life care in clinical practice.

Material and Methods. The study used one of the qualitative methods – a structural interview.

Results. The nurse as an advocate in favor of patient welfare is one of the most significant professional nursing roles in the end-of-life care. The study revealed very poor knowledge of nurses about the living will. Despite the fact that the most respondents think that it is ethical to consider and sign advance directives, less than one-third of them think that advance directives would help to solve the problem of responsibility sharing between the patient and health care professionals and would make the health care professionals' work easier when making decisions in patient care.

Conclusions. The awareness level of advance directives and their implications among Lithuanian nursing professionals is low. Nurses have an increasing interest to get more familiar with advance directives and discuss legal and ethical aspects related to nursing practice at the end of life. The lack of dialogue between nurses and physicians regarding standards of end-of-life decision making including advance directives legislation in the future was highly emphasized.

Introduction

The idea of the living will has been increasingly discussed as a result of enhancement of individual autonomy in the contexts of medical ethics and nursing. The basic rights of individuals to participate in the medical decision making and to be treated with dignity and respect according to their beliefs stipulated the emergence of controversial dilemma of current democratic society – whether patient autonomy can be applied to the end-of-life decisions, i.e., should patient's wish to be allowed to die be taken seriously by medical staff (1–3).

The analysis of “the right to die” problem was associated by some researchers with such social factors as global aging, increasing life expectancy, and appearance of new technologies or superficial drugs that significantly prolong human life. On other hand, new terminal diseases like Alzheimer's, degenerative, or cancer stipulated the discussion of new dimensions of the quality of life, which consequently led to the formulation of the concept of advance directives (4, 5).

Despite many potential definitions and their interpretations, we assume that advance directives is

an authorized written document indicating personal choices about medical treatment and predetermination of preferred end-of-life decisions about future medical care in a legally sound way (6, 7). Most importantly, such a document is supposed to be binding and, thus, implicating adequate responsibilities of physicians and nurses and should be integrated into national legislative system. However, such a concept induces a number of juridical, ethical, and even social collisions like whether it is acceptable to consider such end-of-life issues in public, whether it is acceptable to medical professionals to stop the treatment of patients letting them die, what legal consequences the application of advance directives in practice can have, etc. According to the recommendations of the World Medical Association, advance directives are purely optional and might be applied or not depending on cultural traditions, religious beliefs, and legal legislation (8).

Advance directives, which evolved in such countries as the United States or Canada, have been recently applied in some European countries such as the Netherlands, Switzerland, and Spain. However, advance directives remain a new issue in Eastern

Correspondence to A. Blaževičienė, Department of Nursing and Care, Medical Academy, Lithuanian University of Health Sciences, A. Mickevičiaus 9, 44307 Kaunas, Lithuania
E-mail: aurelija.blazeviciene@gmail.com

Adresas susirašinėti: A. Blaževičienė, LSMU MA Slaugos ir rūpybos katedra, A. Mickevičiaus 9, 44307 Kaunas
El. paštas: aurelija.blazeviciene@gmail.com

Europe. The Baltic States including Lithuania have had no data related to advance directives up to now.

Advances in technology, changes in family structure and social systems, an aging population, and managed care have compounded end-of-life care. Lithuanians, like other people in the world, are living longer and living with progressive, fatal diseases characterized by prolonged dependency on others. Scientific advances focus on cure rather than appropriate treatment and compassionate care during the end of life (9, 10). Furthermore, issues, such as assisted suicide, challenge society to define rights of the dying (11).

Nurses spend more time than any other member of the health care team with patients who are facing the end-of-life care. Yet, studies have shown that many nurses feel inadequately prepared to provide the comprehensive care, which is vital at the end of life (11, 12). Taking into consideration that the entire Lithuanian health care system has been dominated by paternalistic relationship, nurses have even greater difficulty communicating with patients about the end-of-life problems, especially about advance directives.

These and many other factors contribute to ethical dilemmas that occur as the debate over extending life versus postponing death continues. Nowhere this is more evident than in palliative care where decisions about interventions to support and to end life are made daily (9). Many conflicts can be prevented by advanced care planning, and most can be resolved through ethical practice and professional standards of care. The nurse plays a major role in the end-of-life care related to the following: 1) decision making; 2) communication; and 3) care and comfort (10, 11, 13).

The aim of this paper was to reveal the preliminary trends in attitudes of professional nurses toward advance directives in Lithuania as well as to address some of the key ethical issues in the end-of-life care in practice.

Material and Methods

The study used a qualitative method – a structural group interview. Two researchers were present during the interviews: one as a moderator/facilitator and the other responsible for making notes. Each of the 3 sessions lasted from 1.5 to 2 hours where interviews were recorded to be transcribed later. A question guide was designed to cover different aspects of ethical dilemmas in the end-of-life care and advance directives. The interview contained questions to assess the nurses' point of view to professional values, decision making related to the end-of-life care, and their attitudes and knowledge about advance directives. All questions were followed up by group discussions and/or additional questions from the moderator.

The sample of the study consisted of professional nurses in a few major clinical settings in Lithuania. The study sample included 34 acute care registered nurses who have a daily contact with terminally ill patients. The survey was conducted following the ethical code of the sociological research.

Results

The findings of the group interviews are presented below. The categories were deduced from the statements dealing with ethical questions and particularly from those associated with advance directives. Many of the situations that are described could be assigned to more than one category.

Professional Values of the Nurses. The nurse as an advocate is one of the most significant professional nursing roles in the end-of-life care. It is the responsibility of a nurse to assure that: 1) personal values and morals are separated from the patient's and family's decision-making process; 2) the patient and family clearly understand available options; and 3) patient wishes are communicated to the interdisciplinary team.

All nurses agreed that longer life duration was irrelevant, and quality of life was more preferred by terminally ill patients:

A 35-year-old nurse stated, "I think that the most important thing when providing care to a terminally ill patient is to make sure that the patient does not feel pain and does not suffer."

A 32-year-old nurse stated, "I agree that the absence of pain and suffering are very important, but one should also take into consideration the quality of life."

Knowledge and Beliefs About Advance Directives. Advance directives are defined as mechanisms by which individuals make known how they want medical treatment decisions made when they can no longer make the decisions themselves.

Advance directives can take the form of living wills, health care proxies, do-not-resuscitate orders, and durable powers of attorney. Health care providers play an important role in patients' understanding and completion of advance directives. Providers' knowledge and attitudes toward advance directives can be important aspects that influence the effectiveness of the providers' role in helping patients complete advance directives and in ensuring that patients' end-of-life wishes are carried out as well as helping patients' family members understand and cope with end-of-life decision making.

Nurses' knew little about the living will:

"I have not heard of it," a 28-year-old nurse said.

"I am not familiar. What is it?" a 33-year-old nurse said.

Only a few nurses had sufficient knowledge about the living will.

A 36-year-old nurse noted, "Yes, I know a lot about this. I work in the intensive care unit and talking about the end-of-life wishes with patients is very important."

Though nurses did not know a lot about the living will, all of them agreed that "[t]hey would love to express their will through the living will or some other written document having a valid legislative and ethical consequence in case of serious illness, emergency, or other critical circumstances."

Nurses individually and collectively serve as advocates for the ethical practice at the end of life. Recently, perplexing ethical problems have been widely discussed by patients, nurses, and physicians. The signing of the living will is one of the most debated ethical issues. Our research shows that the majority of nurses think that it is ethical to consider and sign advance directives:

A 37-year-old nurse stated, "...Yes. This is an ethical decision, when we are talking about terminally ill patients. It would be good if patient's wishes and expectations were discussed in advance."

A 29-year-old nurse stated, "I think each critically ill patient has to know all the alternatives. And signing the living will seems ethically acceptable to me."

Application of Advance Directives in Clinical Practice. Advances in medical technology now allow the extensive use of life-sustaining treatments. However, not all individuals want to receive life-prolonging therapies for every health crisis. Critically ill patients are often unconscious or incompetent to indicate their treatment preferences. The issue of sharing the responsibility between the health care professionals and the patient becomes very important when we talk about the freedom to choose at the very end of one's life. The ethics of collective judgments must become part of any "new" or reconstructed medical morality suitable to the conditions under which medicine is practiced today (14).

Besides, less than one-third of the interviewed nurses in this study thought that advance directives would help solve the problem of responsibility sharing between the patient and health care professionals and would make the work of health care professionals less complicated in decision making about patient care:

A 33-year-old nurse noted, "I don't think that the living will would help share the moral responsibility. And this would not make the nurse's work easier with terminally ill patients."

A 38-year-old nurse noted, "Most commonly, moral responsibilities are laid on health care professionals. And usually neither moral nor legal documents make nurse's work with terminally ill patients simpler."

Nurses agreed that if such a document were created, it would be applicable in the clinical practice

and would help make decisions regarding patients in vegetative state. Besides this, advance directives are a good way to solve the potential cases of passive euthanasia.

Discussion

Many ethical questions continue to be discussed and debated, but it is generally agreed that nurses should be well prepared for the care of people who are nearing the end of their life. An essential first step in moral decision making is clarification of personal values. Values are pivotal in the art of nursing; thus, nursing practice based on unexamined values often leads to "confusion, indecision, and inconsistency" (15). Moreover, every nursing action has the potential of promoting or disregarding important values held by the patient.

In order to improve the care of dying patients, nurses need to have a clear understanding of what patients, their families, and health care practitioners view as important at the end of life (11). Self-awareness of their own beliefs toward their own death and dying is especially important for nurses because awareness of the similarities and differences between their own beliefs and those of their patients enables them to take care of terminally ill patients in a more empathic way. Nurses spend more time with dying patients than other health care practitioners do. In particular, home nurses and hospice care nurses are in a unique position to facilitate early discussions about patients' care wishes and goals at the end of life (16, 17).

In Lithuania, the problems of seriously ill and dying patients, especially of those who are sick and are dying at home, have not been solved yet. There are very few pain clinics and nursing homes in Lithuania. The country does not have an organized group of volunteers to help people who are seriously ill and who are dying at home. The Law on Patient Rights and Health Damage Compensation states that patients have a right not to know the whole truth about their health condition, yet it does not discuss death with dignity or with respect to moral beliefs of patients. When searching through Lithuanian legal acts and moral requirements related with terminally ill patients, we face the lack of knowledge and information on such aspects of the end-of-life care.

The data of this research show that nurses have very little knowledge about the living will. Yet, the similar results were displayed in a study by Crego and Lipp (18) where nurses at intensive care units demonstrated a very low level of knowledge regarding the living will. Another similar study reporting very low levels of nurses' knowledge about the living will was conducted by Canadian scientists (13). It becomes clear that teaching about the death with

dignity, the living will, and ethical problems related to it should be the subject of nursing ethics in undergraduate and postgraduate level programs alike.

The problem of moral responsibility in health care is also very important. There are several theories concerning this issue. The first is based on the patient's liberty and autonomy of the individual. This theory is based on ethical issues like rights, duties, and obligations. Applied to the physician-patient relationship, this theory imposes the obligation of respect for the patient's self-determination on the physician (14). The autonomy of a terminally ill patient makes a lot of doubt. Can we really consider a patient who is suffering enormous pains autonomous? Are not his/her radical decisions under the influence of pain? The second theory is based on social well-being, rules of conduct, and social accountability. This theory requires actions from physicians to maximize the benefit even if this might demand acting without the patient's consent. It sanctions overriding the autonomous decision of a patient, if that decision is not judged by the physician to be in the patient's or society's good.

Advance directives promote patient autonomy and self-determination by allowing individuals to identify their preferences regarding life-sustaining treatment in case they become incapable of expressing such wishes themselves (19). Taking into consideration the principle of social benefit, one can question if advance directives are the best decision for the patient. Similarly, it also raises a question

whether consent to advance directives maximizes the welfare and minimizes the malfeasance in a certain health care system.

Conclusions

The study revealed the low level of awareness of advance directives and their implications among Lithuanian nurses. It was also determined that there was an increasing interest to get more familiar with advance directives and discuss legal and ethical aspects related to nursing practice in the end-of-life care. The lack of dialogue between nurses and physicians regarding standards for end-of-life decision making and necessity of advance directives legislation in the nearest future was highly emphasized as well.

Finally, the importance to carry out further research on how nurses change their attributes and their values during training was revealed. They would also welcome more research on how different clinical situations can influence nurses' values as this could have significant influence on the development of the value-centered elements of the nursing curriculum.

Acknowledgment

We are grateful to the administration and related personnel of the Hospital of the Lithuanian University of Health Sciences (Kaunas Clinics) for their support and dedicated time during the research process.

Statement of Conflict of Interest

The authors state no conflict of interest.

Lietuvos slaugytojų požiūris į Gyvenimo valios testamentą

Aurelija Blaževičienė¹, Eimantas Peičius²

¹Lietuvos sveikatos mokslų universiteto Medicinos akademijos Slaugos ir rūpybos katedra,

²Lietuvos sveikatos mokslų universiteto Medicinos akademijos Socialinių ir humanitarinių mokslų katedra

Raktažodžiai: Gyvenimo valios testamentas, gyvenimo pabaiga, slaugytojos, požiūris, žinios.

Santrauka. *Tyrimo tikslas.* Įvertinti slaugytojų požiūrį į profesines vertybes bei Gyvenimo valios testamentą.

Medžiaga ir metodai. Atliktas kokybinis tyrimas – struktūrizuotas interviu.

Rezultatai. Pagrindinė profesinė slaugytojos vertybė – pacientų interesų atstovavimas gyvenimo pabaigos klausimais. Tyrimas parodė, kad slaugytojos labai mažai žinojo apie Gyvenimo valios testamentą. Nors trečdalis slaugytojų mano, kad etiška iš anksto apsvarstyti ir pasirašyti Gyvenimo valios testamentą, tačiau mažiau nei trečdalis respondenčių sutinka su tuo, kad Gyvenimo valios testamentas padėtų išspręsti sveikatos priežiūros profesionalo ir paciento atsakomybės pasiskirstymą bei palengvintų slaugos profesionalų darbą priimant paciento sveikatos priežiūros sprendimus.

Išvados. Slaugytojos turėjo nepakankamai žinių apie Gyvenimo valios testamentą. Didžioji dalis respondenčių sutiko, kad dokumentas yra būtinas – jis palengvintų pacientų ir sveikatos priežiūros profesionalų dialogą gyvenimo pabaigos momentu.

References

1. Putman-Casdorph H, Drenning C, Richards S, Messenger K. Advance directives: evaluation of nurses' knowledge, attitude, confidence, and experience. *J Nurs Care Qual* 2009; 24(3):250-6.
2. Jezewski MA, Brown J, Wu YW, Meeker MA, Feng JY, Bu X. Oncology nurses, knowledge, attitudes, and experiences regarding advance directives. *Oncol Nurs Forum* 2005; 32(2):319-27.
3. Lipson AR, Hausman AJ, Higgins PA, Burant CJ. Knowledge, attitudes, and predictors of advance directive discussions of registered nurses. *West J Nurs Res* 2004;26(7):784-96.
4. Duke G, Thompson S. Knowledge, attitudes and practices of nursing personnel regarding advance directives. *Int J Palliat Nurs* 2007;13(3):109-15.
5. Rolland RA, Kalman M. Nurses' attitudes about end-of-life referrals. *J N Y State Nurses Assoc* 2007;38(2):10-2.
6. Dobratz MC. Gently into the light: a call for the critical analysis of end-of-life outcomes. *ANS Adv Nurs Sci* 2005;28(2):116-26.
7. Scanlon C. Defining standards for end-of-life care. *Am J Nurs* 1997;97(11):58-60.
8. WMA Statement on Advance Directives ("Living Wills"). Available from: URL: <http://www.wma.net> [accessed 30 March 2010]
9. Field MJ, Cassel CK. *Approaching death: Improving care at the end-of-life*. Washington: National Academy Press; 1997.
10. Sahn S, Will R, Hommel G. Attitudes towards and barriers to writing advance directives amongst cancer patients, healthy controls, and medical staff. *J Med Ethics* 2005;31: 437-40.
11. Steinhauer EK, Clipp CE, McNeilly M, Christakis NA, McIntyre LM, Tulsy JA. In search of a good death: observations of patients, families and providers. *Ann Intern Med* 2008;132:825-32.
12. Penny LM. *End of life care: Ethical issues*. Health Care Industry; 2001.
13. Blondeau D, Lavoie M, Valois P, Keyserlingk EW, Hébert M, Martineau I. The attitude of Canadian nurses towards advance directives. *Nurs Ethics* 2000;7:399-411.
14. Pellegrino ED, Thomasma DC. *For the patient's own good – the restoration of beneficence in health care*. New York: Oxford University Press; 1988.
15. Uustal D. Exploring values in nursing. *AORN* 2009;31(2): 183-7.
16. McCrary SV, Botkin JR. Hospital policy on advance directives. Do institutions ask patients about living wills? *JAMA* 1989;262(17):2411-4.
17. Johns JL. Advance directives and opportunities for nurses. *Image J Nurs Sch* 1996;28:149-53.
18. Crego PJ, Lipp EJ. Nurses' knowledge of advance directives. *Am J Crit Care* 1998;7:218-23.
19. Scherer Y, Jezewski MA, Graves B, Wu YW, Bu X. Advance directives and end-of-life decision making: survey of critical care nurses' knowledge, attitude, and experience. *Crit Care Nurse* 2006;26(4):30-40.

Received 13 July 2011, accepted 22 August 2011
Straipsnis gautas 2011 07 13, priimtas 2011 08 22

Pain, Medications, and Sleep Problems Among Residents in Long-Term Care Institutions

Lina Spirgienė¹, Jūratė Macijauskienė², Pirkko E. Routasalo³

¹Department of Nursing and Care, Medical Academy, Lithuanian University of Health Sciences, Lithuania,

²Department of Geriatrics, Medical Academy, Lithuanian University of Health Sciences, Lithuania,

³University of Helsinki, Finland

Key words: residents; long-term care; pain; interRAI.

Summary. *Introduction.* An important goal of long-term care institutions is the maintenance of the best possible quality of life. Pain identification and management is a very important aspect of quality of life.

The aim of this study was to investigate the prevalence of pain, the number of used medications, and sleep problems among residents in long-term care institutions.

Material and Methods. The study was performed in 8 long-term care institutions for the elderly in Kaunas region, Lithuania. Every third resident was included in the study. In total, 252 residents were examined. Pain was assessed according to the Pain Scale and the Long-Term Care Facility Resident Assessment Instrument (interRAI) Questionnaire. The number of used medications was identified from prescription sheets. Sleep problems were assessed by the Long-Term Care Facility interRAI Questionnaire.

Results. Of all studied residents, 44.8% reported pain: mild pain was reported by 24.2%, moderate by 18.7%, and severe by 2.0% of the residents. No pain was reported by 48.1% of women and 67.0% of men. Half of the residents (50.8%) aged 85 and more did not report pain. Residents aged 85 and more reported pain as acceptable and required no treatment or changes in current pain management. Intermittent pain was reported by 75.2% of the residents. Nearly half of all the studied residents (43.3%) who suffered from pain used 4 or more different medications. Of those who reported pain, 64.6% had sleep problems.

Conclusions. About half of the residents in long-term care institutions suffered from pain of different intensity. Women and residents aged 75 and older reported daily pain problems more frequently. Residents who reported pain had severe polypragmasy and sleep problems.

Introduction

An important goal of long-term care institutions is the maintenance of the best possible quality of life. Regular assessment of pain should be one of the indicators of care quality. Effective pain recognition and control objectively evaluated according to nursing outcomes is the evidence of high-quality care. The value of nursing outcome assessment increases when important and nursing-related outcome indicators are applied (1).

The definition of pain, which is commonly used, is that "pain refers to any type of physical pain or discomfort of the body. Pain may be localized to one area, or be more generalized. It may be acute or chronic, continuous or intermittent (comes and goes), or occur at rest with movement. The pain experience is very subjective; pain is whatever the resident says it is" (2).

The prevalence of pain increases with age (3–5) although pain is weakly identified and documented

in long-term care institutions. The prevalence of pain in older adults is estimated to range from 25% to 50% (5, 6); however, the prevalence of pain in patients living in nursing homes is reported to vary from 27% to 84% (7, 8). Pain is increased among patients in nursing homes because of the presence of comorbidities and decreased functional abilities (6, 9).

To obtain a more complete picture of the prevalence of pain in patients living in nursing homes, in a Norwegian study, the data were collected from all patients regardless of their cognitive functioning (10). Stereotypes of supposing that there is nothing to do for persons with dementia and that they do not feel any pain are still of great vitality (11).

In long-term care institutions, another common problem, which also could be associated with chronic pain, is sleep disorders. Changes in sleep have been thought to reflect normal developmental processes, which can be further compromised by sleep

Correspondence to L. Spirgienė, Department of Nursing and Care, Lithuanian University of Health Sciences, A. Mickevičiaus 9, 44307, Kaunas, Lithuania. E-mail: lina.spirgiene@gmail.com

Adresas susirašinėti: L. Spirgienė, LSMU MA Slaugos ir rūpybos katedra, A. Mickevičiaus 9, 44307, Kaunas
El. paštas: lina.spirgiene@gmail.com

disturbances, secondary to medical or psychiatric diseases (e.g., chronic pain), a primary sleep disorder that can itself be age-related, or some combination of any of these factors (12).

Older people residing in nursing homes are recognized as frail and vulnerable with respect to prescription of medications. Pain is usually relieved by using a number of medications.

Nurses' knowledge about the management of pain in this population can make a significant difference in promoting functional activity and quality of life (13).

The aim of this study was to investigate the prevalence of pain, the number of used medications, and sleep problems among residents in long-term care institutions.

Material and Methods

Study Design and Population. The study was performed in eight stationary long-term care institutions for the elderly in Kaunas region. Parish and social care homes for adults with disabilities were excluded. Every third resident was included in the study. In total, 252 residents were examined. The study was conducted in 2009. The residents were questioned and observed by the researcher and staff.

Assessment of Pain. The Minimum Data Set (MDS) Pain Scale was used. The scale uses 2 items (pain frequency and pain intensity) to create a score from 0 (no pain) to 3 (severe pain) (Fig. 1) (14). Cronbach alpha for MDS Pain Scale was 0.88 in our study.

The following items from the pain symptoms (J6) in the Long-Term Care Facility (LTCF) InterRAI Questionnaire (version 09) were used: frequency (J6a), consistency of pain (J6c), and pain control (J6e).

Pain frequency was categorized into three categories: no pain, present but not in the previous

3 days, and present daily in the previous 3 days.

Pain consistency was assessed as follows: no pain, intermittent pain, and constant pain.

Pain control (adequacy of current therapeutic regimen to control pain) was assessed according to the descriptions stated below:

No issue of pain.

Pain intensity is acceptable to a person; no treatment regimen or change in regimen is required.

Controlled when therapeutic regimen was followed, but not always followed as ordered.

Therapeutic regimen was followed, but pain control was inadequate.

The Number of Used Medications. Polypragmasy was characterized as no polypragmasy (0–1 medications), minor (2–3 medications), moderate (4–5 medications), and severe (≥ 6 medications). The use of analgesics was identified from prescription sheets.

Sleep Problems. The InterRAI LTCF questionnaire was used for data collection in the study. For sleep problems, items J3o (difficulty falling asleep or staying asleep; waking up too early; restlessness; restless sleep) and J3p (too much sleep; excessive amount of sleep, which interferes with person's normal functioning) were used. Sleep problems were examined in two groups: no sleep problems and reported sleep problems.

The study protocol was approved by the Kaunas Regional Bioethics Committee (No. BE-2-34 and No. P1-104/2008).

The analysis was carried out with the SPSS version 15.0 (15). The statistical analyses were carried out with the use of the descriptive statistics, χ^2 test, and z criteria. The difference was considered as statistically significant when $P < 0.05$.

Results

More women than men suffered from pain (Fig. 2). No pain was reported by 48.1% of women and 67.0%

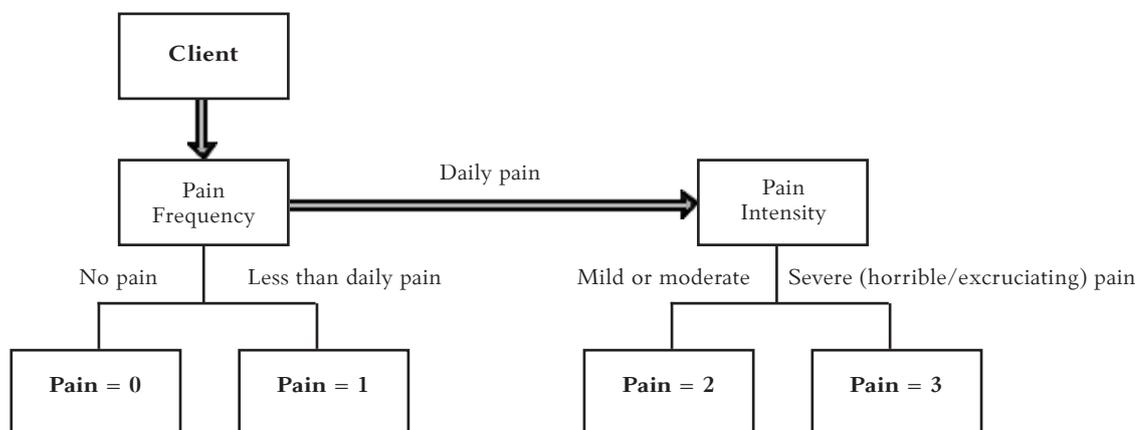


Fig. 1. Pain assessment by the Minimum Data Set Pain Scale

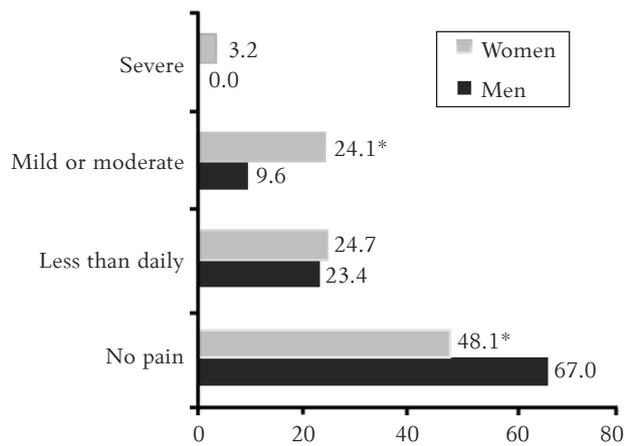


Fig. 2. Comparison of pain assessed by the Minimum Data Set Pain Scale in men and women

$P=0.004$, $\chi^2=13.5$, $df=3$. * $P<0.05$, compared with men.

of men, and the difference between the genders was significant ($P=0.004$).

Pain was reported by 44.8% of all the residents. From these, 24.2% reported mild pain, 18.7% moderate pain, and 2.0% severe pain. No pain was reported by 55.2% of the residents.

Intermittent pain was reported by 75.2% of the residents (Table 1). Constant pain and inadequately

controlled pain were reported more often by women than men. Women more often than men complained that therapeutic regimen was followed, but pain control was inadequate. Residents aged 85 and more reported pain as more acceptable and required no treatment or changes in current pain management.

Reported pain frequency was analyzed by gender and age group (Table 2). Half of the residents (50.8%) aged 85 and more did not report pain. More women than men and residents 75 years and more suffered from pain daily in the previous 3 days. The difference between genders was significant ($P=0.003$). There were also significant differences in the frequency of pain between different age groups ($P=0.019$).

Residents who suffered from pain used more medications and had sleep problems more frequently compared with residents who reported no pain (Table 3). In fact, 22.1% of the residents who suffered from pain used 6 and more medications (severe polypragmasy). The difference was significant between those who reported pain and used more medications compared with those who reported no pain and used fewer medications ($P=0.001$). Most of those (64.6%) who reported pain had sleep problems. The difference was significant between

Table 1. Distribution of Residents Suffering From Pain by Consistency and Control of Pain

Pain	Residents Suffering From Pain, n=113
Consistency of pain	
Intermittent	85 (75.2)
Constant	28 (24.8)
Pain control	
Pain was acceptable	28 (24.8)
Controlled adequately by therapeutic regimen	42 (37.2)
Controlled when regimen was followed, but it was not always followed	11 (9.7)
Regimen was followed, but pain control was inadequate	32 (28.3)

Values are number (percentage).

Table 2. Distribution of Residents by Pain Frequency in Different Gender and Age Groups

Frequency of Pain	Gender		Age Group, Years			
	Male	Female	≤64	65–74	75–84	≥85
No pain	63 (67.0)	76 (48.1)	35 (74.5)	31 (63.3)	42 (44.2)	31 (50.8)
No pain in the previous 3 days	20 (21.3)	32 (20.3)	8 (17.0)	10 (20.4)	19 (20.0)	15 (24.6)
Daily in the previous 3 days	11 (11.7)	50 (31.6)	4 (8.5)	8 (16.3)	34 (35.8)	15 (24.6)
	$P=0.003$, $\chi^2=14.0$, $df=2$		$P=0.019$, $\chi^2=19.8$, $df=6$			

Values are number (percentage).

Table 3. Distribution of Residents by Pain, Number of Medications Used, and Sleep Problems

Pain	Sleep Problems		The Number of Medications (Polypragmasy)			
	No Problems	Reported	0–1 (No)	2–3 (Minor)	4–5 (Moderate)	≥6 (Severe)
No pain, n=139	74 (53.2)	65 (46.8)	63 (45.3)	49 (35.3)	20 (14.4)	7 (5.0)
Reported, n=113	40 (35.4)*	73 (64.6)*	17 (15.0)	47 (41.6)	24 (21.2)	25 (22.1)
	$P=0.005$, $\chi^2=7.9$, $df=1$		$P=0.001$, $\chi^2=34.7$, $df=3$			

Values are number (percentage). * $P<0.05$, compared with residents with no pain reported.

those who reported pain and sleep problems and those who reported no pain and no sleep problems ($P=0.005$). Only 8.8% of the residents who suffered from pain used analgesics.

Discussion

In Lithuanian health care institutions, pain must be assessed using the Visual Analogue Scale (VAS), the Faces Expression Pain Scale, and the Numeric Pain Scale (16), but unfortunately, pain in long-term care institutions is not routinely assessed using these scales. More knowledge about pain in Lithuanian nursing homes can contribute to the improvement of the quality of care and the quality of life of residents.

In Minnesota long-term care institutions, pain was assessed by the same pain scale as used in the present study. They reported similar results as in our study: 47.5% had no pain; 26.7% had mild pain, 21.9% had moderate pain, and 4.0% of the residents had severe pain (17). When the same MDS Pain Scale was used in Italy, the Netherlands, and Finland, 32.2%, 43.0%, and 57.1% of responders, respectively, reported pain (18). The prevalence of chronic pain was 72.8% among nursing home residents in Vilnius (19).

Sometimes pain is not identified due to residents' fear of procedures, dependence of medications, and acceptance of pain as part of normal aging. Under-reporting of pain is common because the elderly learn to expect chronic pain and accept it as part of growing older (20). In our study, 24.8% of the residents reported pain intensity as acceptable.

Pharmacological treatment of pain in elderly population is often inadequate both in quantity and quality (21). In our study, only 37.2% of the residents reported adequately controlled pain by therapeutic regimen and 28.3% of the residents reported

inadequately controlled pain. Pain management is even worse in patients with dementia because of difficulties in communication and detection, and the fear of inducing side effects and polypharmacy (22).

Staff members are seldom trained in pain management, and in some settings, there is a very rapid turnover. Efforts have been made to improve the knowledge base of persons who take care of patients in pain, but the problem persists.

The impact of pain (especially chronic pain) on older adults can be significant. Unrelieved pain can have significant functional, cognitive, emotional, and societal effects on the elderly (23, 24). In future studies, pain associations with domains such as cognitive function, depression, activities of daily living, and societal effects should be assessed.

Pain recognition and treatment is needed for the best quality of life of nursing home residents. Introduction of standardized pain assessments at regular times and interdisciplinary discussion of the assessment results and treatment effects may help establish better care.

Conclusions

About half of the residents in long-term care institutions suffered from pain of different intensity. Women and residents aged 75 and older reported pain problems daily more frequently. Residents who reported pain had severe polypharmacy and sleep problems. Pain and pain control is a great problem among residents in long-term care institutions and is not documented appropriately. The findings suggest that pain has an important impact on the well-being of elderly residents.

Statement of Conflict of Interest

The authors state no conflict of interest.

Gyventojų skausmo, medikamentų, miego sutrikimų vertinimas ilgalaikės globos institucijose

Lina Spirgienė¹, Jūratė Macijauskienė², Pirkko E. Routasalo³

¹Lietuvos sveikatos mokslų universiteto Medicinos akademijos Slaugos ir rūpybos katedra,

²Lietuvos sveikatos mokslų universiteto Medicinos akademijos Geriatrijos klinika,

³Helsinki universitetas, Suomija

Raktažodžiai: gyventojai, ilgalaikė priežiūra, skausmas, interRAI.

Santrauka. Įvadas. Kuo geresnės gyvenimo kokybės užtikrinimas – vienas svarbiausių tikslų ilgalaikės globos institucijose. Skausmo identifikavimas ir valdymas yra vienas iš svarbių aspektų užtikrinant gyvenimo kokybę.

Tyrimo tikslas – įvertinti gyventojų skausmo paplitimą, vartojamų medikamentų skaičių ir miego sutrikimus ilgalaikės globos institucijose.

Medžiaga ir metodai. Tyrimas buvo atliktas aštuoniuose Kauno apskrities ilgalaikės globos institucijose. Iš sąrašų buvo atrinktas kas trečias gyventojas, tyrime dalyvavo 252 gyventojai. Skausmas buvo vertintas pagal Skausmo klausimyno ir interRAI (ilgalaikės priežiūros institucijos) klausimyno parametrus. Vartojamų

medikamentų skaičius buvo vertinamas remiantis paskyrimų dokumentacija. Miego sutrikimai buvo vertinami pagal interRAI klausimyno parametrus.

Rezultatai. Nustatyta, kad skausmą kentė 44,8 proc. gyventojų, iš jų 24,2 proc. – silpną, 18,7 proc. – vidutinį, 2,0 proc. – labai stiprų/nepakeliamą. Skausmo nepatyrė 48,1 proc. moterų ir 67,0 proc. vyrų. Daugiau kaip pusė vyresnių nei 85 metų gyventojų (50,8 proc.) atsakė, kad nepatyrė skausmo. Vyresniems nei 85 metų gyventojams skausmo intensyvumas buvo priimtinas ir gydymo arba jo korekcijos neprireikė. Protarpinį skausmą kentė 75,2 proc. gyventojų. Nustatyta, kad 43,3 proc. gyventojų, kurie kentė skausmą, vartojo keturis medikamentus ir daugiau; 64,6 proc. gyventojų, kurie kentė skausmą, turėjo miego problemų.

Išvados. Beveik pusė gyventojų ilgalaikės globos institucijose kentė įvairaus intensyvumo skausmą. Moterys bei vyresni nei 75 metų gyventojai dažniau kentė skausmą. Gyventojai, kurie kentė skausmą, dažniau vartojo daugiau nei keturis medikamentus bei turėjo miego sutrikimų.

References

- Riklikienė O, Šeškevičius A. The importance of outcome indicators for pain control and their relationship to nursing actions. *Medicina (Kaunas)* 2010;46 Suppl 1:54-62.
- Morris JN, Murphy K, Nonemaker S. Long term care facility Resident Assessment Instrument (RAI) user's manual version 2.0. Baltimore: HCFA; 1995.
- American Geriatrics Society. The management of persistent pain in older persons. *J Am Geriatr Soc* 2000;50:205-24.
- Jones G, Macfarlane G. Epidemiology of pain in older persons. In: Gibson S, Weiner D, editors. *Pain in older persons*. Seattle, WA: IASP Press; 2005.
- Rustoen T, Wahl A, Hanestad B, Lerdal A, Paul S, Miskowski C. Age and the experience of chronic pain: differences in health and quality of life among younger, middle-aged and older adults. *Clin J Pain* 2005;21:513-23.
- American Geriatrics Society Panel on Persistent Pain in Older Persons. Clinical practice guidelines: the management of persistent pain in older persons. *J Am Geriatr Soc* 2002;50:205-24.
- Hofseth C, Norvoll R. Kommunehelsetjenesten – gamle og nye utfordringer. En studie av sykepleietjenesten i sykehjem og hjemmesykepleien. Trondheim: SINTEF Unimed helsetjenesteforskning; 2004.
- Nygaard HA, Jarland M. Are nursing home patients with dementia diagnosis at increased risk for inadequate pain treatment? *Int J Geriatr Psychiatry* 2005;20:730-7.
- Jordhøy M, Saltvedt I, Fayers P, Loge J, Ahlner-Elmqvist M, Kaasa S. Which cancer patients die in nursing homes? Quality of life, medical and sociodemographic characteristics. *Palliat Med* 2003;17:433-44.
- Torvik K, Kaasa S, Kirkevold Ø, Rustoen T. Pain in patients living in Norwegian nursing homes. *Palliat Med* 2009;23(1):8-16.
- Macijauskienė J. Pain assessment in the patients with impaired cognitive functions. (Pacientų su pažinimo funkcijų sutrikimais skausmo vertinimas.) *Gerontologija* 2010;11(4): 240-5.
- Crowley K. Sleep and sleep disorders in older adults. *Neuropsychol Rev* 2011;21:41-53.
- Maas ML, Buckwalter KC, Hardt MD, Tripp-Reimer T, Tittler MG, Specht JP. *Nursing care of older adults. Diagnoses, outcomes and interventions*. Mosby, A Harcourt Health Sciences Company; 2001.
- Fries BE, Simon SE, Morris JN, Flodstrom C, Bookstein FL. Pain in US nursing homes: validating a pain scale for the minimum data set. *Gerontologist* 2001;41(2):173-9.
- Statistical Package for Social Sciences, SPSS 15.0 Version, Inc.
- LR SAM įsakymas „Dėl Būtiniosios medicinos pagalbos ir Būtiniosios medicinos pagalbos paslaugų teikimo tvarkos bei masto patvirtinimo. 2004-08-26, V-608“. (Ministry of Health of the Republic of Lithuania, Order.) *Valstybės žinios* 2004;134.
- Wang J, Kane RL, Eberly LE, Virnig BA, Chang L. The Effects of resident and nursing home characteristics on activities of daily living. *J Gerontol A Biol Sci Med Sci* 2009;(64),4:473-80.
- Achterberg W, Gambassi G, Finne-Soveri H, Liperoti R, Noro A, Frieters DHM, et al. Pain in European long-term care facilities: cross-national study in Finland, Italy and the Netherlands. *Pain* 2010;148:70-4.
- Filipavičiūtė R, Kažurienė B, Butkienė B, Jurgelėnas A. Investigation of chronic pain in elderly nursing home residents. (Pagyvenusių žmonių, gyvenančių globos namuose, lėtinio skausmo tyrimas.) *Gerontologija* 2009;10(1):18-22.
- Mank KL. *Gerontological Nursing: Competencies for care*. 2nd. ed. USA: Jones and Bartlett Publishers; 2010.
- Ferrell BA. Pain evaluation and management in the nursing home. *Ann Int Med* 1995;9:681-7.
- Frampton M. Experience assessment and management of pain in people with dementia. *Age Ageing* 2003;32:248-51.
- Bruckenthal P. Assessment of pain in the elderly adult. *Clin Geriatr Med* 2008;24:213-36.
- Deane G, Smith HS. Overview of pain management in older person. *Clin Geriatr Med* 2008;24:185-201.

Received 30 June 2011, accepted 26 August 2011
 Straipsnis gautas 2011 06 30, priimtas 2011 08 26

Nursing Students' Attitudes and Knowledge Toward Their Career Planning in Turkey

Özüm Erkin Balyacı, Süheyla Altuğ Özsoy

Department of Public Health, School of Nursing, Ege University, Bornova-Izmir, Turkey

Key words: career planning; nursing students; questionnaire; Turkey.

Summary. *The aim of this study was to describe nursing students' attitudes and knowledge toward career planning in Turkey.*

Material and Methods. The study group comprised 157 baccalaureate senior nursing students from one university school of nursing. The participation rate was 95%. A questionnaire was developed by the researchers and had two sections including the students' demographic and personal information, and attitudes and knowledge toward career planning.

Results. More than half of the students (51.7%) chose nursing because of job security. A pediatrics unit (28.2%) was the most preferred department for working, and the least preferred was a psychiatric ward (6%). The most preferable position in which students wanted to work after graduation was a hospital staff nurse (53.7%) followed by an education nurse (31.5%). Less than one-fourth (22.8%) of nursing students thought that marriage could affect his/her career, and 39.6% of students thought that having children would disrupt his/her career. The majority of nursing students (65%) thought to enter further education (master and doctorate degree studies). Less than half (44.3%) of nursing students had knowledge toward career planning. More than one-fourth (26.2%) of students knew to develop a professional portfolio, 42.3% of students had knowledge how to write a curriculum vitae, and 33.6% of students knew job interview techniques.

Conclusions. Educators and clinicians must be positive role models, and they are responsible to guide nursing students before graduation. A career counseling unit and career week activities can be organized to share the experiences with the students about future career opportunities.

Introduction

A career is defined as advancing in a chosen job and as a result of that earning more money, taking on more responsibility, gaining more status, power, and respect (1). Careers need attention and nurturing. They are "life expressions of how a person wants to be in the world" (3). Career planning is not a one time event, but rather is a process that, over time, becomes part of the repertoire of skills and experiences and enables the nurse to develop as a professional and achieve the objectives. Moreover, career planning can play a crucial role at every stage of nurse's career (2). It is something that students, beginning practitioners, and experienced professionals can use to enrich their current role or to assist them in changing roles (3). The career planning and development process helps students answer the following four questions: "Where have I been?" "Where am I now?" "Where would I like to go?" and "How will I get there?" (1, 3). Career plans include personnel goals and targets but they can change.

The reality is that you cannot control every aspect of your life all the time. At different points in your life, different priorities will compete for your attention, and you will need to focus on whatever is most important. For this reason, career plans, instead of being certain steps that need to be taken, need to be considered flexible (4).

The International Council of Nurses (ICN) has taken a leadership role in this area. In 1995, the ICN published a working document "Career Development for Nurses." In the Introduction, the ICN stated that "nurses' career development should be encouraged and supported by appropriate professional attitudes, educational systems, workplace structures and management attitudes" (5). Educators, employers, and professional organizations are challenged to collaborate with nursing students on career-development activities that will enable to continue to provide high quality care when they become nurses. By paying attention to students' values, interest and goals, educators can help students to use their expe-

Correspondence to E. Balyacı, Department of Public Health, School of Nursing, Ege University, 35100 Bornova-Izmir, Turkey. E-mail: ozum.erkin@gmail.com

Adresas susirašinėti: E. Balyacı, Department of Public Health, School of Nursing, Ege University, 35100 Bornova-Izmir, Turkey. El. paštas: ozum.erkin@gmail.com

riences to develop appropriate and marketable skills, and to position themselves for future job and career opportunities. Determining whether the nursing students have any career needs to design their career path/plan and knowing whether the school provides career programs that meet and satisfy nursing students' career needs is crucial (2). A "career counseling unit" generated for the purpose of guiding nursing students before graduation. Furthermore, "career week" activities are organized so that nurses who work in different areas and positions may share their experiences with the students (6).

Background

In Turkey, nursing education was based in elementary schools until 1959. Four-year undergraduate nursing education offering a Bachelor's degree first started at Ege University in 1955. In 1997, nursing education was undertaken at universities where the nursing schools commenced offering a 4-year university education. Today, there are 80 nursing schools affiliated with universities (7). There was no master's program for nursing until 1968. From 1963 to 1973, Ege University provided a doctoral degree for nurses (8).

A nurse in Turkish is "hemşire" and means a sister. Therefore, nursing considered to be a woman's profession (9). Nursing is traditionally perceived as a feminine occupation by public not only in Turkey but worldwide (10). Studies have shown that nursing profession is not generally chosen willingly, it is chosen to get a job, because it is easy to find a job or because it is seen as the most appropriate job for a woman in society (11, 12). With regard to occupational status and prestige, nursing profession is not rated high (10).

Nursing offers many and diverse practice contexts. Although there may be national differences, in general nurses can work in the areas of preventive and therapeutic health care services, education and management, and different health-related work places (6). Many students enter their undergraduate program with preconceptions about their future nursing careers. Clinical placements are important components for the professional development of nursing students. However, placements also have an impact on guiding decision-making with regard to future career and allow for validation of preferred career pathways, often challenging long held preconceptions (13). As nursing students plan their careers, it is also important for them to choose departments and areas of work that are consistent with their desires and needs, skills and interests (6). Kloster et al. (14) found that areas considered by students to be difficult were avoided later in choosing career pathways. Career pathways can change over the duration of an undergraduate course. Clinical placements

have the potential to influence career choice; it is important that students make informed decisions in the planning of their future careers. Clinicians as well as educators are responsible for counseling and supporting the students during clinical placements (13).

All nurses should maintain a professional portfolio to reflect on their own development of knowledge and skills over time, present evidence of competencies, and market themselves when applying for career ladder positions or new jobs in nursing. A professional portfolio is a collection of carefully selected materials that document the nurse's competencies and illustrate the expertise of the nurse. The portfolio does not replace the resume or curriculum vitae, but provides information not available from these alone. Portfolios in nursing may be used for professional development, for career ladder promotions and with job applications, for annual performance appraisals, as documentation of employee performance for accreditation surveys, when applying to educational programs, and for document continuing competence (15). When a newly graduated nurse found the ideal position, he or she must proceed to the next and crucial step in obtaining the position: a job interview. Job interview entails some preparation such as learning as much as possible about the possible employer, dressing for the interview, being on time, and using suitable body language during a job interview (16).

Little is known about nursing students' knowledge and attitudes toward their career planning in Turkey (6, 17, 18). This study addresses attitudes and knowledge of Turkish nursing students at one school of nursing. The research questions were as follows:

1. Do nursing students start nursing education willingly?
2. What are the reasons of students for choosing nursing?
3. What are their preferences regarding area, position, and department after graduation?
4. What are their knowledge and attitudes toward career planning?

Material and Methods

Participants. The study group comprised 157 baccalaureate senior nursing students from one university school of nursing. All the students were asked to participate, and the participation rate was 95% (n=149). The data were collected in 2008, one month before last-year students' graduation.

Measures. The tool was comprised of two sections. In the first section, there were questions about the students' demographic (age, gender) and personal information (whether or not they start nursing willingly, reason for choosing nursing as a profes-

sion, after they graduate in which area, position and department did they want to work). In the second section, the questionnaire based on the literature about knowledge and attitudes toward career planning was used (1, 2, 16, 17). The questionnaire had 7 questions. The participants were asked to answer yes (1) or no (0). Attitudes toward the impact of marriage and children on career and further education, and knowledge of developing portfolio, job interview techniques, and writing curriculum vitae were documented. An expert consensus panel, experienced in different nursing fields, ascertained content validity. The panel was asked to validate the scale. A pilot study enrolling 10 nursing students was carried out to test the acceptability and validity of the items. These participants were not included in the further study. The questionnaire took approximately 15 minutes to complete. Internal consistency of the scale was tested using the Kuder-Richardson 20 reliability coefficient. The data analysis was performed with the program SPSS version 13.0.

Ethical Considerations. Permission for the study was granted by the Ethics Committee of Nursing School. Participant students were orally informed about the aim of this study. Participants were told that they could withdraw from the research whenever they wished and their identity would be kept strictly.

Results

These results were found after the reliability and validity studies: a pilot study showed that the questions were understandable and no changes in wording were needed. These participants were not included in the further study. The Kuder-Richardson 20 reliability coefficient was 0.78.

The overwhelming majority (98.0%) of students were females, and the mean age of the students was 22.89 ± 1.19 years. Of the students participating in this study research, 45.6% (n=68) of students start nursing willingly. Reasons for choosing nursing were as follows: job security (51.7%), ideal (25.5%), family's desire (12.1%), and profession related to healthcare (10.7%).

The areas where students wanted to work after graduation were as follows: hospital staff nurse (53.7%), academician at a university (26.2%), school nurse (8.7%), occupational health nurse (6.7%), and pharmaceutical company sales (4.7%) (Table 1). The positions in which students want to work after graduation were as follows: education nurse (31.5%), nursing services director (30.8%), head nurse (22.8%), and supervisor nurse (14.9%) (Table 2). The ward mostly preferred as working place by students was pediatric ward (28.2%), followed by intensive care (23.4%), operating room (15.4%), maternity units (12.0%), and other (14.3%) depart-

Table 1. Areas Where Nursing Students Would Like to Work After Graduation (n=149)

Area	n	%
Hospital staff nurse	80	53.7
Academician at a university	39	26.2
School nurse	13	8.7
Occupational health nurse	10	6.7
Pharmaceutical company sales	7	4.7
Total	149	100.0

Table 2. Positions that Nursing Students Would Like to Choose After Graduation (n=149)

Position	n	%
Education nurse	47	31.5
Nursing services director	46	30.8
Head nurse	34	22.8
Supervisor nurse	22	12.1
Total	149	100.0

Table 3. Departments Where Nursing Students Would Like to Work After Graduation (n=149)

Department	n	%
Pediatric units	42	28.2
Intensive care units	35	23.4
Operating room units	23	15.4
Maternity units	18	12.0
Psychiatric units	10	6.7
Other units	21	14.3
Total	149	100.0

ments. The least preferred was a psychiatric ward (6%) (Table 3).

Table 4 presents nursing students' attitudes and knowledge toward career planning. Less than one-fourth (22.8%) of nursing students thought that marriage affects his/her career, 39.6% of nursing students thought that children might disrupt his/her career, and 65.1% of students planned to enter further education. Less than half (44.3%) of nursing students had knowledge toward career planning, 26.2% of nursing students knew how to develop a professional portfolio, 42.3% of students had knowledge how to write a curriculum vitae, and 33.6% of nursing students knew job interview techniques.

Discussion

This study aimed to describe nursing students' attitudes and knowledge toward their career planning. More than half (54.4%) of nursing students started nursing unwillingly. Job security (51.7%) is the most reason for choosing nursing as a profession. The results of our study are consistent with the findings of Yildirim et al. (6) and Erkin and Tokem (12), who reported that 65% and 50% of students, respectively, did not choose nursing willingly. A study by Erkin and Tokem (12) reported that 59% of nursing students chose nursing because it is easier to find a job, whereas Yildirim et al. (6) reported that more than half of the students if given a chance

Table 4. Nursing Students' Attitudes and Knowledge Toward Career Planning (n=149)

	n	%
Attitudes toward career planning		
Do you think that marriage affects your career?		
Yes	34	22.8
No	64	43.0
Partially	51	34.2
Do you think that having children disrupt your career?		
Yes	49	32.9
No	41	27.5
Partially	59	39.6
Do you think to enter further education?		
Yes	97	65.1
No	52	34.9
Knowledge Toward Career Planning		
Do you have knowledge toward career planning?		
Yes	66	44.3
No	83	55.7
Do you know to develop a professional portfolio?		
Yes	39	26.2
No	110	73.8
Do you know how to write a curriculum vitae?		
Yes	63	42.3
No	86	57.7
Do you know job interview techniques?		
Yes	50	33.6
No	99	66.4
Total	149	100.0

would not transfer to another school because it is easy to find a job in nursing after graduation. According to these results, nursing profession is not generally chosen willingly, it is chosen to get a job easier.

More than half of students (53.7%) wanted to work as a hospital staff nurse, followed by an academician at a university (26.2%). Similarly, in a study by Yıldırım et al. (6), 59% of nursing students wanted to work as a hospital staff nurse, 38% of students wanted to be an academician, and 7% of students wanted to have a job not related to nursing (health insurance, pharmaceutical company sales, etc.) after graduation. Unlu et al. (18) reported that a large proportion of nursing students wanted to work as academicians or administrator nurses. The reason that being an academician was more preferential than being a clinician was thought to be the hard working conditions of the nurses in hospitals and the low position they get relatively to the work they accomplished.

The analysis revealed that most frequently students would like to work as an education nurse (31.5%) or a director of nursing services (30.8%). Similarly, in a study by Yıldırım et al. (6), 42% of nursing students wanted to work as a education nurse at the hospital, 30% of students chose to be a nursing services director, and 21% of students wanted to be a head nurse. In line with our find-

ings, Karadakovan (19) reported that 89% of nursing students wanted to work in the areas of management and education. Studies have shown that nursing as a profession is rated low (4, 10). In addition, in Turkey, nursing is traditionally perceived as a feminine occupation by public. It is thought that there could be a relationship between the students wanting positions such as education/management and higher status of the position in society.

When the departments where nursing students would like to work after graduation were examined, most of nursing students preferred pediatric units, followed by intensive care and operating room, maternity and other units. Psychiatric units were least preferred by nursing students. Similarly, in a study by Happell (20), pediatric nursing was shown as popular among students. It is very interesting that any students in this study reported that the department to work with healthy people whereas Norwegian students reported mostly wanting to work with healthy people such as public health nursing (21). Kloster et al. (14) reported that career choice could change over the duration of an undergraduate course. In a study by Robinson et al. (22) in which the impact of a positive experience influencing career choice, reported that promoting a positive welcome to uninteresting department, students changed their mind. According to this, clinical placements and education are important factors in nursing education. It is important to take nursing students to nursing practice departments where the educators and clinicians will be positive role models to ensure the students will like departments such as psychiatry and public health.

It was determined that nearly one-fourth (22.8%) of students thought that marriage would affect his/her career and 39.6% thought that having children was a factor disrupting future career. Betz and Fitzgerald (23) reported that marital and family status was the most consistent predictor of women's career orientation and innovation. In social life, it is primarily expected from a woman to be a mother and a wife. As a result, the success in career was left to second place (24, 25). Nursing is traditionally perceived as a female occupation by public in Turkey and worldwide. However, Yang et al. (26) reported that nursing was more preferred among men than women because of not having potential risks like pregnancy, which interrupts the career.

It was found that nursing students (65.1%) thought about further education. Rognstad et al. (21) reported that 70% of Norwegian students wanted to enter further education. Shattell et al. (27) found that American nursing students envisioned further their education. Further education in nursing is necessary because of an unprecedented growth in professional knowledge, rapid changes in

the healthcare system, and the consequent changes in nurses' roles (28). Health practitioners need to adapt as professional requirements change to maintain competence and to safeguard the public. The findings are promising because the students wanted to enter further education and compensate the lack of nurses in their country.

In this study, less than half (44.3%) of students had knowledge toward career planning, and only 26.2% of nursing students knew how to develop professional portfolio. A professional portfolio contains materials that document the nurse's competencies and experiences and illustrate the career path of the nurse. Portfolios in nursing contain the nurse's background and expertise for others to review (15). A portfolio also helps nurses in planning their careers. All too often nurses change positions without considering where they want to be in 1, 5, and 10 years, and they do not evaluate how each position fits into their career plans. In the portfolio, the nurse can list professional goals to be achieved and can use the portfolio to monitor progress in meeting them. In this way, the portfolio is a career-planning journal that guides setting career goals and making career decisions (29). Findings show that students had little knowledge about the portfolio. It is thought that educators and clinicians are responsible to raise awareness of the crucial role of portfolio for nursing students' career plan.

It was found that about half (42.3%) of the nursing students knew how to write a curriculum vitae. With the curriculum vitae, nurses can more easily market themselves to potential employers, illustrating their value and how they could fulfill the demands of the position (15). Findings may be related to the nature of the job application. At the first step of job application, it is possible for an employer to request a person to fill in some forms including background information such as educational level, course experiences, and specialties. It is hopeful that nursing students are aware of the importance of a curriculum vitae.

However, less than half (33.6%) of nursing students knew job interview techniques. The prospect

of a job interview can intimidate even the most seasoned of nurses. Therefore, it would be harder for a newly graduate nurse. Of course, few people relish being put on the spot and made to feel insecure, both of which commonly occur during job interviews. However, preparedness can help a great deal in making the experience less threatening and even enjoyable. The process, however, entails some preparation (16). For these reasons, educators and clinicians can help students to use their job interview experiences, to develop appropriate and marketable skills, and to position themselves for future job and career opportunities.

Study Limitations and Implications for the Future Research

The most important limitation for the study was the small study sample including baccalaureate senior nursing students in one university. It results in difficulties to generalize the results. Future studies that would include larger samples and more nursing schools are needed. Additional exploration of qualitative studies on nursing students' attitudes and knowledge toward career planning is recommended. Nursing students' attitudes and knowledge toward their career planning must be studied with different cultures and countries if both high performance and job satisfaction is a desire among professional members in nursing.

Conclusion

Educators and clinicians must be positive role models, and they are responsible for guiding the nursing students before graduation. Using the results of this study, a career counseling unit and career week activities can be organized. So that nurses who work in different areas and positions may share their experiences with the students, and employers and professional organizations might guide them to develop portfolio and teach them job interview techniques.

Statement of Conflict of Interest

The authors state no conflict of interest.

Slaugos studentų žinios ir požiūris į karjeros planavimą Turkijoje

Özüm Erkin Balyacı, Süheyla Altuğ Özsoy

Ege universiteto Slaugos mokyklos Visuomenės sveikatos katedra, Bornova-Izmir, Turkija

Raktažodžiai: karjeros planavimas, slaugos studentai, anketa, Turkija.

Santrauka. *Tyrimo tikslas.* Straipsnyje pateikiamos slaugos studentų žinios ir požiūris į karjeros planavimą Turkijoje.

Tiriamųjų kontingentas ir tyrimo metodai. Tyrime dalyvavo 157 universitetinės slaugos mokyklos bakalau-ro programos vyresniųjų kursų slaugos studentai. Atsako dažnis – 95 proc. Apklausa organizuota naudojant

tyrėjų parengtą dviejų dalių anketą. Pirmoji anketos dalis skirta demografiniams ir asmeniniams duomenims rinkti, antroji – žinioms ir požiūriui apie karjeros planavimą išaiškinti.

Rezultatai. Daugiau kaip pusė studentų pasirinko slaugos profesiją, siekdami užsitikrinti darbo vietą ir darbą ligoninėje. Vaikų ligų skyriuje pageidautų dirbti 28,2 proc. būsimų slaugytojų, o psichiatrijos skyriuje – vos 6 proc. Labiausiai studentų pageidaujamos pareigos, baigus studijas, yra slaugytojo-mokytojo (31,5 proc.). Penktadalis studentų įsitikinę, kad šeimos sukūrimas gali neigiamai paveikti jų profesinę karjerą, 39,6 proc. mano, kad vaikų auginimas galėtų iš viso sustabdyti jų karjeros augimą. 65 proc. visų respondentų ketintų toliau studijuoti magistrantūroje ar doktorantūroje. Apie karjeros planavimą informuotas tik kas antras studentas (44,3 proc.), parengti profesinį aplanką (*potfolio*) gebėtų tik ketvirtadalis, tačiau 42,3 proc. slaugos studentų žino, kaip parašyti gyvenimo aprašymą ir 33,6 proc. yra susipažinę su įsidarbinimo pokalbio procedūra.

Įšvados. Dėstytojai ir slaugos praktikai turėtų rodyti teigiamą pavyzdį ir konsultuoti slaugos studentus karjeros planavimo klausimais dar studijų metu. Įsteigtas karjeros planavimo centras ir organizuojama karjeros savaitė sudarytų galimybes slaugos studentams įgyti daugiau žinių apie profesinės karjeros galimybes.

References

1. Aytaç S. Çalışma yaşamında kariyer yönetimi planlaması, gelişimi ve sorunları. (Career management, development and problems in work life.) 2nd ed. Bursa (Turkey): Ezgi Kitabevi; 2005.
2. Donner GJ, Wheeler MM. Career planning and development for nurses: the time has come. *Int Nurs Rev* 2001;48:79-85.
3. Donner GJ, Wheeler MM. It's your career: take charge, career planning and development. International Council of Nurses, Geneva, Switzerland; 2001.
4. Barutçugil I. İş hayatında kadın yönetici. (Woman manager in work life.) 1st ed. İstanbul (Turkey): Kariyer Yayınları; 2002.
5. International council of nurses, career development for nurses: working document. ICN, Geneva, Switzerland; 1995.
6. Yıldırım D, Keçeci A, Bulduk S. How do you Turkish nursing students plan their career after the graduation? A questionnaire survey. *Asia Pacific Educ Rev* 2010; DOI10.1007/s12564-010-9133-x.
7. Aksayan S. Training of occupational health nursing in Turkey. II. International Occupational Health Nursing Symposium Book. Zonguldak: University of Karaelmas; 2003.
8. Yavuz M. Nursing doctoral education in Turkey. *Nurs Edu Tod* 2004;24(7):553-9.
9. Kulakaç O, Özkan IA, Sucu G, O'Lynn C. Nursing: the lesser of two evils. *Nurs Edu Tod* 2009;29(6):676-80.
10. Brodie DA, Andrews GJ, Andrews JP, Thomas GB, Wong J, Rixon L. Perceptions of nursing: confirmation, change and the student experience. *Int J Nurs Stud* 2004;41(7):721-33.
11. Bayık A, Erefe İ, Ozsoy SA, Uysal A. Kadın mesleği olarak hemşireliğin son yüzyıldaki gelişimi. (Development of nursing in the last century as a women's profession.) *Hemşirelik Forumu Dergisi* (Nursing Forum) 2002;5(6):16-26.
12. Erkin O, Tokem Y. Turkish and Belgian Nursing Students' Perceptions of Nursing Profession and Reasons for Choosing Nursing Career. 2nd European Nursing Congress, Kosova; 2007.
13. McKenna L, McCall L, Wray N. Clinical placements and nursing students' career planning: A qualitative exploration. *Int J Nurs Practice* 2010;16:176-82.
14. Kloster T, Høie M, Skår R. Nursing students' career preferences: a Norwegian study. *J Adv Nurs* 2007;59:155-62.
15. Oermann MH. Developing a professional portfolio in nursing. *Orthop Nurs* 2002;21(2):73-8.
16. Puetz BE. The winning job interview: do your homework. *Am J Nurs* 2005;105:30-2.
17. Karaoğlu L, Çelebi E, Pehlivan E. Nursing, midwifery and health officer programs undergraduate students' attitudes towards their future career: motivating/demotivating professional characteristics and career preferences. *İnönü Üniversitesi Tıp Fakültesi Dergisi* 2007;14(4):219-25.
18. Unlu S, Ozgur G, Gumus AB. School of Nursing students' view and expectations related to nursing profession and education. *J Ege University School Nurs*, 2008;24(1):43-56.
19. Karadakovan A. Ege Üniversitesi Hemşirelik Yüksekokulu öğrencilerinin mesleğin toplumdaki statüsü ve hemşireliğe erkek öğrenci alınmasına ilişkin görüşleri. (The professional status of Ege University nursing students in society and their opinions about receiving male students into nursing.) 3. Nursing Education Symposium Book. İstanbul; 1997.
20. Happell B. The role of nursing education in the perpetuation of inequality. *Nurs Edu Tod* 2002;22:632-40.
21. Rogstad MK, Aasland O, Granum V. How do nursing students regard their future career? Career preferences in the post-modern society. *Nurse Educ Today* 2004;24:493-500.
22. Robinson A, Andrews-Hall S, Cubit K, Fassett M, Venter L, Menzies B, et al. Attracting students to aged care: The impact of a supportive orientation. *Nurse Educ Today* 2008;28:354-62.
23. Betz NE, Fitzgerald LF. The career psychology of women. Orlando, Fla.: Academic Press; 1987.
24. Goldin C, Katz FL. Gender differences in careers, education, and games. *Transitions: Career and family life cycles of the educational elite. Am Econ Rev Papers & Proceed* 2008;98(2):363-9.
25. Palmer M, Hyman B. Women in management. İstanbul: Vedat Üner, Rota Press; 1993.
26. Yang CI, Gau ML, Shiau SJ, Hu WH, Shih FJ. Professional career development for male nurses. *J Adv Nurs* 2004;48(6):642-50.
27. Shattell M, Moody N, Hawkins R, Creasia J. Nursing students' career choice: a pilot study. *Tenn Nurse* 2001;64(3):14-5, 18.
28. Griscio O, Jacono J. Effectiveness of continuing education programmes in nursing: literature review. *J Adv Nurs* 2006;55(4):449-56.
29. Koch L, Schultz D, Cusick J. Encouraging rehabilitation counseling students to develop a portfolio as a career development tool. *Rehabil Edu* 1998;12:261-7.

Received 23 May 2011, accepted 30 June 2011
 Straipsnis gautas 2011 05 23, priimtas 2011 06 30

AIMS AND SCOPE

The journal “**Nursing Education, Research, & Practice**” ISSN 2029-705X is a bi-annual, peer-reviewed, international general research journal.

The purpose is to advance knowledge and disseminate research findings that are directly relevant to the practice of nursing and midwifery. The journal publishes scholarly papers on all aspects of care in the nursing and midwifery professions including theory, clinical practice and education, history, policy and administration, ethics and new technologies.

In particular, the journal specifically aims to become a platform available for Eastern European countries with post-Soviet nursing and midwifery systems to share new ideas and demonstrate rapid and significant advancements in the nursing and midwifery disciplines.

Original articles with scientific investigations and systematical literature reviews are welcomed from professionals of other health-related fields on issues that have a direct impact on nursing and midwifery and strengthen evidence-based practice. Letters to the editor with commentaries on published papers or research and clinical issues, as well as short communications, will be taken into consideration and not left unanswered. This journal also provides space for announcements and an international calendar for professional conferences and events for nurses and midwives.

INSTRUCTIONS TO AUTHORS

Submission

Manuscripts must be submitted electronically using the e-mail address nursing.journal@lsmuni.lt. For all communication after manuscripts have been submitted, e-mail correspondence will be used. The manuscripts will be reviewed with due respect for authors' confidentiality.

In order for an article to be published, all coauthors must sign the Copyright Transfer Agreement (CTA) stating that all copyrights are transferred to publisher in case the article is published. Authors' signatures guarantee that their article is original, does not interfere with copyright regulations, and has not been previously published, submitted, or planned for submission to other journals, except in the form of a thesis or presentation.

After filling in and signing the CTA, the authors must upload its scanned image in JPG or PDF format during the submission process.

Manuscripts must be accompanied by a cover letter, stating clearly why the work is considered suitable for publication in the journal **Nursing Education, Research, & Practice** and explaining the importance of the study.

Manuscript format and style

All pages of the manuscript should be 12-point font size, double-spaced throughout with 2.5-cm margins and numbered including references, tables, figures, and figure legends. Use of abbreviations should be limited; full terms should be presented together with the first abbreviation. There should not be abbreviations in the title of the article.

Manuscripts must not exceed 20 pages, including abstract, text, references, tables, and figures.

The journal **Nursing Education, Research, & Practice** attaches importance to the use of correct, clear, reader-friendly English. Manuscripts should be written in either American or British English. In case of poor language, the manuscript can be sent back to authors for correction.

Manuscripts must not contain the same information as manuscripts under review, accepted, or published. This restriction does not apply to results published by the authors as abstracts, letters to editors, or contributions to symposia, provided that the manuscript submitted adds significantly to the previously published contribution.

Manuscripts must include:

- Title page (title of the article and author information)
- Abstract and key words
- Text
 - Introduction
 - Methods
 - Results
 - Discussion
 - Conclusions
- Acknowledgments (if appropriate)
- List of references
- Tables and figures

Title page

The title page must include:

A concise title (no more than 150 characters including spaces) should indicate the focus of the article;

A short running title (running head) (50 characters with spaces maximum) for use as a page header;

Author information indicates for each author: full names (not initials) and academic degree(s); each author's name should carry a superscript number, assigned in ascending numerical order, to indicate an institutional affiliation;

Institutional affiliations of all authors, which should be presented in the same order as the numbers in the authors' superscripts, and should include department, institution, city, country;

Name, mailing address, phone and fax numbers, and e-mail address of the corresponding author.

Source(s) of support in the form of grants, equipment, or all of these.

The number of figures and tables that belong to the manuscript.

Abstract and Key Words

A structured abstract must not exceed 250 words and should describe the new and important aspects of the article. It should be intelligible to the non-specialist without reference to the text. No citations are allowed in the abstract. Abbreviations must be kept to a minimum; non-standard abbreviations should be explained in brackets. The abstract must be organized under the following four subheadings (not as undivided text):

- Purpose of the article without detailed background;
- Design (type of study, sample, setting, data collection)
- Methods (instruments, interventions, measures, procedures, types of analysis; details of statistical tests and other irrelevant information should not be given);
- Results (should summarize the most actual findings);
- Principal conclusions (present a brief statement directed to the stated objective).
- Key words. Up to 5 keywords or phrases that capture the main topics of the article should be displayed at the end of abstract. Unhelpful or unqualified terms should be avoided.

The Lithuanian author(s) should also provide the abstract and key words in Lithuanian according to the same requirements and principals as for English one. Lithuanian abstract must not be shorter than 250 words and not exceed 500 words.

Text

Introduction

The introduction should give a brief and clear account of the background of the problem and the rationale of the article. It should not include data or conclusions. The final sentence should clarify the objective of the article.

Methods

This section should describe the participants (age, gender, and other relevant characteristics should be given), the study design (type of study, sample, setting, dates of data collection, etc.), and how it was performed (e.g. inclusion/exclusion criteria, ethical considerations, etc.). References for the study design and statistical methods should be to standard works when possible (with pages started). Statistical methods should be given in sufficient details to allow a knowledgeable reader to verify the reported findings. Specify the computer software used.

Results

The major findings obtained during this study should be presented in a logical sequence in the text, tables, and figures in this section. They should be presented clearly and concisely. The derivatives and absolute numbers should be used for presenting numeric results. Do not repeat the data in the text, tables, and figures; do not duplicate data in tables and figures.

Discussion

Discussion should present a brief (normally not exceeding one-third of the total length of the manuscript) and pertinent interpretation of the results against the background of existing knowledge and should include comparison with similar studies, limitations of the findings and potential directions for future research. Details of data given in results section should not be repeated.

Conclusions

In a separate section, the conclusions should summarize the major findings of the study together with possible implications for clinical practice. Speculation and unqualified statements should be avoided.

Acknowledgments

Acknowledgments should state sources of support in the form of grants or funding, equipment, etc. Other appropriate acknowledgments, for example, to other scientists for their help or advice, may be included.

References

Should be based on Vancouver system and on "Uniform requirements for manuscripts submitted to biomedical journals" (*JAMA* 1997; 277:927-34). All citations in the text must be listed in the references and all references should be cited in the text. References should be numbered consecutively in the order in which they are first mentioned in the text, followed by any in tables or figure legends. Reference citations should not appear in titles, summary, and conclusions. The list of references for scientific article should include only those references that are important to the text and be limited to 30 references; for review article limited to 70 references. It is recommended that mostly last five-year publications would be referenced.

Paper in a journal

1. Parkin DM, Clayton D, Black RJ, Masuyer E, Friendl HP, Ivanov E, et al. Childhood-leukaemia in Europe after Chernobyl: 5 year follow-up. *Br J Cancer* 1996;73:1006-12.

When journal article is referenced, up to six authors should be listed. If there are more than six authors, only the first six should be listed followed by "et al."

If article is not in English, the title should be presented in original language, and English translation should be given in parenthesis:

1. Malinauskienė V, Gražulevičienė R. Socialinių darbo veiksmų įtaka miokardo infarkto rizikai tarp 25- 64 metų Kauno vyrų. (Social status and risk of myocardial infarction among 25-64 years old male population in Kaunas.) *Medicina (Kaunas)* 2000;36:217-25.

Chapter in a book

1. Phillips SJ, Whisnant JP. Hypertension and stroke. In: Laragh JH, Brenner BM, editors. *Hypertension: pathophysiology, diagnosis, and management*. 2nd ed. New York: Raven Press; 1995. p. 465-78.

Monographs and books

1. Ringsven MK, Bond D. *Gerontology and leadership skills for nurses*. 2nd ed. Albany (NY): Delmar Publishers; 1996.
2. Norman LJ, Redfern SJ, editors. *Mental health care for elderly people*. New York: Churchill Livingstone; 1996.

Journal article in electronic form

1. Morse SS. Factors in the emergence of infectious diseases. *Emerg Infect Dis* [serial online] 1995 Jan-Mar [cited 1996 Jun 5]; 1(1): [24 screens]. Available from: URL: <http://www.cdc.gov/ncidod/EID/eid.htm>.

PhD thesis

1. Rokaitė R. Maisto alergenų įtaka ir dietoterapijos reikšmė atopiniu dermatitu sergantiems vaikams. (The influence of food allergens and the value of diet therapy for children with atopic dermatitis.) [dissertation]. Kaunas: KMU; 2006.

Tables

Tables should not be embedded in the text, but should be presented on a separate page and uploaded separately. Tables should be numbered with Arabic numerals in the order of citation in the text, and a brief descriptive title should appear above each table. Tables should normally be self-explanatory. Each column should have a heading, and the units of measurement should be given in the heading. Numbers up to four digits should be written without spaces; longer numbers should be spaced in 3-digit groupings, without commas.

Explanatory matter and necessary information should be placed in footnotes (explain all nonstandard abbreviations), and for footnote use superscript letters (not symbols). Use asterisks to indicate statistical significance.

Figures

All figures (graphs, charts, photographs, and illustrations) should be of good quality and given on separate pages. All figures should be numbered with Arabic numerals in the order of their citation in the text and should include a brief title. For figures supplied in parts, please use A, B, C, etc. to label the parts of the figure.

In addition, the journal requires all figures to be provided in electronic format (preferred file formats are TIFF and JPG).

The legends for all figures should be typed out on a separate page with Arabic numerals corresponding to the figures. The legends should explain the figures in sufficient detail that they could be understood without reference to the text. Symbols, arrows, numbers, or letters used to identify parts of the illustrations should be identified and explained clearly in the legend.

Review articles and theoretical analysis that are not focused on an empirical study, not exceeding 5000-8000 words, should present an update of recent developments in a field being discussed. Preparation of a review article follows the standard format for research articles, with respect to text style, tables, figures, figure legends, and references. A structured abstract up to 250 words describing the need and objective of a review article, methods used for gathering and analyzing data, and main conclusions is required, although the subheadings stipulated for research articles do not apply. For those articles, an organizing construct may be started instead of a design. Up to 70 references should be included.

Case Reports should consist of clinical cases highlighting uncommon conditions or presentations and should provide information regarding new or unusual aspects of nursing practice, education or management, which contribute to the existing knowledge. Preparation of case reports follows the standard format for research articles, with respect to text style, figures, tables, and references. The text should not exceed 2000 words and should be divided into the following sections: summary (50 words), introduction, case report(s), and discussion. Number of references should be limited to 10 most recent.

Review process

Once submitted, manuscripts will be quality checked by the editorial office before being sent for double-blind peer review. This process takes one month on average from submission to the initial decision. On acceptance, after any required changes have been made, proofs will normally be sent electronically within 2 weeks, with a request to correct and return them within 5 days. Extensive corrections cannot be made at this time. The paper will then be accepted for publication. These timings are provisional, and do not include author delays.