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Slovenian Nursing Review

REVIJA ZBORNICE ZDRAVSTVENE IN BABIŠKE NEGE SLOVENIJE -
ZVEZE STROKOVNIH DRUŠTEV MEDICINSKIH SESTER, BABIC IN ZDRAVSTVENIH TEHNIKOV SLOVENIJE

REVIEW OF THE NURSES AND MIDWIVES ASSOCIATION OF SLOVENIA

Ljubljana 2014 Letnik 48 Številka 4
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OBZORNIK ZDRAVSTVENE NEGE

PREDSTAVITEV, NAMEN IN CILJI

Obzornik zdravstvene nege (Obzor Zdrav Neg) objavlja izvirne znanstvene, pregledne znanstvene in strokovne članke in novosti na področju zdravstvene nege, babiške nege in interdisciplinarnih področij zdravstvenih in družbenih ved. Revija objavlja članke, ki v svojih znanstvenih, teoretičnih in filozofskih izhodiščih obravnavajo razvojne paradigme omenjenih področij kot eksperimentalne in neeksperimentalne raziskave, kvalitativne raziskave in pregled literature. Članki obravnavajo zdravstveno nego in druge zdravstvene vede kot znanstveno in strokovno disciplino ter vključujejo ključne dimenzije razvoja stroke kot so teoretični koncepti, modeli, etika in filozofija, klinično delo, krepitev zdravja, razvoj prakse in zahtevnejših oblik dela, izobraževanje, raziskovanje, menedžment, kakovost in varnost, zdravstvena politika idr.

Revija pomembno prispeva k profesionalnemu razvoju zdravstvene nege in babištva ter drugih zdravstvenih ved v Sloveniji, državah Balkana ter državah širše centralne in vzhodno evropske regije, ki jih povezujejo skupne značilnosti razvoja zdravstvene nege v postsocialističnih državah.

Revija ima vzpostavljene mednarodne standarde na področju publiciranja, mednarodni uredniški odbor, širok nabor recenzentov in je prosto dostopna v e-obliki. Članki v Obzorniku zdravstvene nege so recenzirani s tremi zunanjimi anonimnimi recenzijami. Revija objavlja članke v slovenskem in angleškem jeziku in izhaja štirikrat letno.

Zgodovina revije kaže na njeno pomembnost za razvoj zdravstvene in babiške nege na področju Balkana, saj izhaja od leta 1967, ko je izšla prva številka Zdravstvenega obzornika (ISSN 0350-9516), strokovnega glasila medicinskih sester in zdravstvenih tehnikov, ki se je leta 1994 preimenovalo v Obzornik zdravstvene nege. Kot predhodnica Zdravstvenega obzornika je od leta 1954 do 1961 izhajalo strokovno-informacijsko glasilo Medicinska sestra na terenu v izdaji Centralnega higienskega zavoda v Ljubljani.

Obzornik zdravstvene nege indeksirajo: CINAHL (Cumulative Index to Nursing and Allied Health Literature), COBIB.SI (Vzajemna bibliografsko-kataložna baza podatkov), Biomedicina Slovenica, dLib.si (Digitalna knjižnica Slovenije).

SLOVENIAN NURSING REVIEW

INTRODUCTION, PURPOSE AND OBJECTIVES

Published in the Slovenian Nursing Review (Slov Nurs Rev) are the original and review scientific and professional articles and the news on current events in the field of nursing, midwifery and other interdisciplinary health and social sciences. The articles explore the developmental paradigms of the relevant fields in accordance with their scientific, theoretical and philosophical bases, which are reflected in the experimental and non-experimental research, qualitative studies and reviews. The articles consider nursing and other health sciences as scientific and professional disciplines and include the key dimensions of their development such as theoretical concepts, models, ethics and philosophy, clinical practice, health promotion, the development of practice and more demanding modes of health care delivery, education, management, quality and safety, health policy and others.

The articles published in the Nursing Review, which are interdisciplinary oriented, significantly contribute towards the professional development of nursing, midwifery and other health professions in Slovenia, the Balcans, and the countries of the Central and Eastern Europe which share common characteristic of nursing development of post-socialist countries.

The Nursing Review follows the international standards in the field of publishing endorsed by the international editorial board and a critical selection of reviewers. All published articles are available also in electronic form. Before publication the articles in this quarterly periodical are triple-blind peer reviewed. Some original scientific articles are published or translated in the English language.

The history of the magazine clearly demonstrates its impact on the development of nursing and midwifery care in the Balcan area. In 1967 the first issue of the professional periodical of the nurses and nursing technicians Health Review (Slovenian title: Zdravstveni obzornik, ISSN (0350-9516) was published. From 1994 it bears the title The Slovenian Nursing Review. As a precursor to Zdravstveni obzornik, professional-informational periodical entitled a Community Nurse (Slovenian title: Medicinska sestra na terenu) was published by the Central Institute of Hygiene in Ljubljana.

The Slovenian Nursing Review is indexed and abstracted in CINAHL (Cumulative Index to Nursing and Allied Health Literature, COBISS.SI (Slovenian union bibliographic/catalogue database), Biomedicina Slovenica, dLib. si (The Digital Library of Slovenia).

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Leading article/Uvodnik

The development of nursing with older people a 21st century leadership priority

Razvoj zdravstvene nege starejših, pomembne prioritete 21. stoletja

Debbie Tolson

Nurses are increasingly engaged in policy developments and influencing the health care development agenda in response to a variety of drivers for change. More than a decade ago the International Council of Nurses (ICN) launched a global vision for the 21st century (International Council of Nurses, 2010) declaring that the mission of nurses 'is to lead our societies to better health' (p. 1). As Benton (2012) explains, to realize this vision nurses need to be actively involved in shaping health policy and to be responsive to evolving health challenges and changing needs. This aligns with the World Health Organisation strategic directions to strengthen nursing and midwifery services 2011-2015 (World Health Organisation, 2011).

Population ageing is a worldwide phenomenon; it is currently estimated that one in every nine people in the world is 60 years of age or older, rising to one in five people by 2050 (United Nations, 2007). To respond to this demographic transition the World Health Organisation (WHO) advocate four key national strategies:

1. the prevention of chronic diseases common in older age;
2. the strengthening of health and social care systems for older people;
3. the promotion of enabling, age-friendly environments;
4. the re-conceptualization of ageing itself (World Health Organisation, 2012).

As nursing constitutes the largest health care workforce in most countries it follows that nurses have a significant opportunity to influence public health and contribute to the realisation of the WHO later life strategy. Accordingly, Skela-Savič (2014) advocates the development of nursing aligned with population health needs. In particular, Skela-Savič (2014) highlights the urgent need for higher levels of nurse education in Slovenia which is required to equip registered nurses to meet the challenge of an ageing population. This call is echoed by nurse leaders around the world who seek to reform and achieve improvements in the standards of care provided to older people.

To advance practice anywhere in the world nursing needs clarity and confidence to articulate its contribution to the health and well-being of older people and family caring. This requires a nursing workforce equipped with the specialist knowledge, skills and value base that enables expert nursing with and for older people. It also requires an empowered leadership with the capability and commitment to influence public health policy and to champion better services and equality in the care of older people.

The economics of ageing are complex and in broad terms with rapid population ageing some countries become rich before they age while smaller economies tend to age before they become rich (Bloom, et al., 2010). Although it would seem logical that the development of nursing older people would be in tune with demographic and economic changes the evolution of nursing with older people has been slow to emerge in many regions. Furthermore, there are numerous examples of impoverished care environments in high income countries which hinder nurses with the right skill sets to deliver high quality care because the care environments are under-resourced. Many commentators note that nurses who choose to work with older people are afforded low status and unfavourable working conditions and compare the professional stigma that they experience with the historic stigmatisation of old age.

In administrations where nursing is overshadowed by medicine a treatment paradigm dominates and this can serve to supress the advancement of alternative models of care and supress the development of skilled nursing with older people. A professional failure to delineate, describe and promote the contribution of nurses to the health and health care of older people obscures the value of and

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hinders the development of expert nursing. Paradoxically, even in countries where nursing has greater autonomy and opportunity to advance, the perceived need for registered nurses can quickly be eroded by a failure to evidence the benefits of skilled nursing, particularly within long term care, such as within nursing homes (Tolson, et al., 2011). As McCormack and Ford (1999) cautioned over a decade ago, this opens up the real possibility of substituting registered nurses with cheaper vocationally qualified support workers. This is particularly problematic given the complexity of nursing needs that are associated with longevity, such as those associated with frailty and comorbidities that typify today's generation of older people. Furthermore, this stance perpetuates a reluctance to invest in advanced education programmes to develop specialists and better prepare general adult nurses to meet the needs of older patients. There is, however, growing evidence that this is a false economy which jeopardises the quality of care and hinders practice development and service improvement. For example, in the UK, the Francis Inquiry (2013), which investigated major failings in a national health service hospital in England, drew into sharp focus how a lack of expert nurses and nurse leaders skilled in the care of older people results in poor standards of care, system failures and patient harm (Francis, 2013). On a more positive note, a USA review of studies investigating the contribution of advanced nurse practitioners within nursing homes concluded that employing highly skilled nurses was associated with a decrease in the hospitalisation rates of older nursing home residents with either a decrease or no change in mortality (Bakerjian, 2008). A recent survey of clinical mentors in Slovenia further endorses the perceived benefits of greater levels of gerontological knowledge and the importance of gerontological nurse education at the pre-registration and post registration levels (Hvalič Touzery, et al., 2013).

In many countries, the goal of developing and advancing skilled nursing practice with older people presents a formidable challenge. Debates concerning the specialist or non-specialist nature of nursing older people are often conflated with workforce and resource challenges rather than focussing on the complexity of practice knowledge and the skills that practitioners require to deliver nursing care that is safe, effective, age appropriate and compassionate. Kagan (2009) attempts to move our focus from debates about specialism towards the adoption of gerontological principles. For some, this suggestion offers a practical solution, while others consider it a compromise cautioning that we may pay a high price in terms of our practice leadership and the quality of future services provided for older people. Kelly and colleagues (2005) a Scottish study reports about used involvement research methods to inductively develop a description of gerontological nursing with experienced nurses. Their justification for this approach was the recognition that the quality of nursing care is intrinsically linked to the quality of decision-making and judgements in practice, which are dependent upon practice expertise. Their findings endorse the need for practice informed by agreed principles, but their recommendations also encourage us to be more ambitious given the complexity of gerontological nursing which they defined as:

'…a person centred approach to promoting healthy ageing and the achievement of well-being, enabling the person and their carers to adapt to health and life changes and to face ongoing challenges.' (Kelly, et al., 2005).

A major step forward in the United Kingdom has been the recognition by the regulatory body the Nursing and Midwifery Council that nursing older people is a specialism which requires highly skilled nurses who can respond to the complexity of health and social care needs of older people (Nursing and Midwifery Council, 2009, p. 6).

It follows that careful planning is required for pre-registration and post registration curricula in terms of equipping nurses to work with an ageing population. Although contexts of care and curricula may differ between countries, there is consensus in the international literature about the scope of nursing with older people:

- health promoting aspects that enable people to optimise health, well-being and independence in later life,
- curative and rehabilitative dimensions that focus on functional or psychological recovery from illness or injury,
- facilitating self-care and enabling effective management of long term conditions,
- providing care for those who become frail or with limited and or declining self-care capacity,
- palliative and end of life care (Tolson, et al., 2011a, pp. 3-4).

For nurses to become experts in working with older people they must draw on knowledge from applied gerontology, geriatric medicine and generic nursing skills alongside the knowledge of the older person, their family and life circumstances (Tolson, et al., 2011b).

The challenge for nurse leaders, including nurse educators, is to steer a transformative path to ensure a positive future for nursing older people. This will require policy influencing, investment in practitioner education and an interprofessional commitment to explore new models of care that put older people at the centre and reject ageist or outdated approaches.

Literature

Bakerjian, D., 2008. Care of nursing home residents by advanced practice nurses: a review of the literature. *Research in Gerontological Nursing*, 1(3), pp. 177-185.
http://dx.doi.org/10.3928/00220124-20091301-01
PMid:20077962

Benton, D., 2012. Advocating globally to shape policy and strengthen nursing's influence. *The Online Journal of Issues in Nursing*, 17(1), Manuscript 5. Available at: http://nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Vol-17-2012/No1-Jan-2012/Advocating-Globally-to-Shape-Policy.html [21. 10. 2014].

Bloom, D.E., Canning, D. & Fink, G., 2010. Implications of population ageing for economic growth. *Oxford Review of Economic Policy*, 26(4), pp. 583–612. http://dx.doi.org/10.1093/oxrep/grq038

Francis, R., 2013. *Report of the Mid Staffordshire NHS Foundation trust public inquiry: executive summary*. London: The Stationery Office. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/279124/0947.pdf [15. 10. 2014].

Hvalič Touzery, S., Kydd, A. & Skela Savič, B., 2013. Clinical mentors' attitudes towards working with older adults. *Obzornik zdravstvene nege,* 47(2), pp. 157-168.

International Council of Nurses, 2010. *Vision for the future of nursing*. Available at: www.icn.ch/about-icn/icns-vision-for-the-future-of-nursing/ [21. 10. 2014].

Kagan, S.H., 2009. Guest Editorial: Boundaries and barriers: redefining older people nursing in the 21st century. *International Journal of Older People Nursing*, 4(4), pp. 240-241. http://dx.doi.org/10.1111/j.1748-3743.2009.00197.x PMid:20925848

Kelly, T.B., Tolson, D., Schofield, I. & Booth, J., 2005. Describing gerontological nursing: an academic exercise or prerequisite for progress? *Journal of Clinical Nursing,* 14(Suppl. 1), pp. 13-23. http://dx.doi.org/10.1111/j.1365-2702.2005.01147.x PMid:15819655

McCormack, B. & Ford, P., 1999. The contribution of expert gerontological nursing. *Nursing Standard,* 13(25), pp. 42–45. http://dx.doi.org/10.7748/ns1999.03.13.25.42.c7495 PMid:10222995

Nursing and Midwifery Council, 2009. *Guidance for the care of older people*. London: Nursing and Midwifery Council.

Skela-Savič B., 2014. Are we aware of our responsibilities for the development of nursing? *Obzornik zdravstvene nege,* 48(1), pp. 5-11. http://dx.doi.org/10.14528/snr.2014.48.1.12

Tolson, D., Booth, J. & Schofield, I., 2011a. Principles of gerontological nursing. In: Tolson, D., Booth, J. & Schofield, I., eds. *Evidence informed nursing with older people*. Oxford: Wiley Blackwell.

Tolson, D., Booth, J. & Schofield, I., 2011b. Achieving evidence informed nursing with older people. In: Tolson, D., Booth, J. & Schofield, I., eds. *Evidence informed nursing with older people*. Oxford: Wiley Blackwell.

Tolson, D., Rolland, Y., Andrieu, S., Aquino, J.-P., Beard, J., Benetos, A., et al., 2011. International Association of Gerontology and Geriatrics: a global agenda for clinical research and quality of care in nursing homes. *Journal of the American Medical Directors Association,* 12(3), pp. 185-189. http://dx.doi.org/10.1016/j.jamda.2010.12.013 PMid:21333919

United Nations, 2007. *World economic and social survey 2007: development in an ageing world*. New York: United Nations Department of Social and Economic Affairs.

World Health Organisation, 2011. *Strategic directions for strengthening nursing and midwifery services 2011-2015*. Geneva: World Health Organization. Available at: www.who.int/hrh/resources/nmsd/en/index.html [27. 2. 2014].

World Health Organisation, 2012. *Good health adds life to years: global brief for world health day 2012*. Geneva: World Health Organization. Available at: http://www.who.int/ageing/publications/en/ [30. 10. 2014].

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Original scientific article/Izvirni znanstveni članek

Student work and nursing student's performance during study

Študentsko delo in uspešnost študentov zdravstvene nege v času študija

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Key words: factors contributing to student work; amount of student work; student financial position; nursing

Ključne besede: dejavniki za študentsko delo; obseg študentskega dela; finančni status študenta; zdravstvena nega

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ABSTRACT

Introduction: According to different studies, student work has both positive and negative effects on the academic performance of nursing students. The purpose of the study was to examine the effect of student work based on a sample of Slovenian nursing students.

Methods: The method of non-experimental quantitative research with a sampling survey was used. 432 nursing students participated. The reliability of the questionnaire was determined by internal consistency analysis (from 0.608 to 0.753) and factor analysis. The data were collected in October and November 2012. Descriptive statistics, the chi-square test, correlation analysis and ANOVA were used for the statistical analysis.

Results: Students of four higher education institutions did not provide statistically significant differences in the assessment of their financial status ($p = 0.189$). The number of hours of student work does not statistically correlate ($p = 0.776$) with the time for studying. The monthly total of the hours of student work revealed a statistically significant difference ($p = 0.001$), with students at higher education institution A stating the least hours of student work ($\bar{x} = 19.9$), and students at higher education institution B stating the greatest amount of student work ($\bar{x} = 48.5$).

Discussion and conclusion: The monthly amount of hours of student work does not affect students' academic performance. Students opt for student work because they wish to acquire clinical experience, clinical practice, meet potential employers and improve their employment prospects after graduation.

IZVLEČEK

Uvod: Različne raziskave omenjajo tako pozitivne kot negativne učinke študentskega dela na uspešnost študentov zdravstvene nege pri študiju. Namen raziskave je bil proučiti učinek študentskega dela na vzorcu slovenskih študentov zdravstvene nege.

Metode: Uporabljena je bila metoda kvantitativnega neeksperimentalnega raziskovanja, podatki so bili zbrani s tehniko anketiranja. Sodelovalo je 432 študentov zdravstvene nege. Zanesljivost vprašalnika je bila ugotovljena z metodo analize notranje konzistentnosti (od 0,608 do 0,753) in s pomočjo faktorske analize. Podatki so bili zbrani oktobra in novembra 2012. Za statistično analizo je bila uporabljena opisna statistika, test hi – kvadrat, korelacijska analiza in ANOVA.

Rezultati: Študentje štirih vključenih visokošolskih zavodov niso navedli statistično pomembnih razlik v oceni finančnega statusa ($p = 0{,}189$). Obseg študentskega dela nima statistično pomembne povezave ($p = 0{,}776$) s časom za študij. V številu mesečnih ur študentskega dela se je pojavila statistično pomembna razlika ($p = 0{,}001$), kjer so študentje z visokošolskega zavoda A navedli najmanj ur študentskega dela ($\bar{x} = 19{,}9$), medtem ko so študenti visokošolskega zavoda B navedli največ ur študentskega dela ($\bar{x} = 48{,}5$).

Diskusija in zaključek: Mesečni obseg ur študentskega dela nima vpliva na uspešnost študentov pri študiju. Odločanje za študentsko delo temelji na izkušnjah iz klinične prakse, željah po pridobivanju kliničnih izkušenj, spoznavanju potencialnih delodajalcev in možnostih za zaposlitev po končani diplomi.

The article is based on the master's thesis Sedina Kalender Smajlović *Influental factors for student work in nursing care* (2013).

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Introduction

The main factor affecting young people's level of activity and position in the labour market include the duration and quality of their education. Ignjatović (2006) argues that this has to do with both the greater role of the state in promoting the education of the young and the greater ambition of the young and their parents, as they expect that investments in knowledge and higher education will result in a better position in the labour market and in society in general. The focus of higher education is on connecting student work and experience with learning targets (Salamonson & Andrew, 2006). The overhaul of the education system within the Bologna process has revealed tendencies to define a common concept of academic performance of nursing students and the factors that affect student performance (Dante, et al., 2011). While students opt to continue education at the tertiary level after finishing secondary education in great numbers, not everyone can obtain a scholarship or other funding, so they do student work, which is based on student work referrals provided by student employment agencies (Šušteršič, et al., 2010). Work can be brokered by organisations authorised by the Ministry of Labour, Family and Social Affairs that have a concession contract with the Ministry (Medjo, 2008). There has been an ongoing discussion about student work, which mostly refers to its economic effects. According to Blatnik (2007), student work is a special form of employment that is a characteristic of Slovenia and a major way of covering occasional inconsistencies in working processes in companies, as regular labour relationships are rather rigid.

Kerkvliet and Nowell (2005) analysed the theories about the causes of student absenteeism by focusing on students' social and economic background. They found that students with a lower social and economic status had a higher probability of interrupting their education. The second major determining factor was academic and social integration, which is defined as a student's identification with university, social and institutional norms during a course. According to review studies conducted between 1999 and 2011, the performance of nursing students is affected by demographic, academic, cognitive, behavioural and personality factors (Pitt, et al., 2012). McGann and Thompson (2008) also determined factors affecting the performance of students in higher years of study. The study focused on activities that are beneficial for student performances in the study process, and the impact of mentorship on student behaviour. Time management was found to be a major factor in student performance during studies. The period of studying in the home environment and participation at lectures strongly predict the performance of nursing students, while student work is a negative factor (Salamonson, et al., 2009). It is known that student work also affects students' progress. According to data obtained in a research project (Šušteršič, et al., 2010) the rate of progress of Slovenian students is lowest in the first year, while differences between years are relatively small. Students that have performed over 16 hours of work per week reported lower academic achievements; in addition, the greater number of hours has a negative impact on other academic performance factors (Rochford, et al., 2009). According to Krajnc (2007), the pitfalls of student work include extending study time and loss of motivation to study if the work is attractive, while students report that performing student work enables them to support themselves while studying, acquire work experience and improve their position (travel, sociability). Unlike the previous Evroštudent SI study, the findings of Evroštudent SI study in 2010 identified several differences, including a lower percentage of students that view their income as acceptable, and a higher percentage of students that believe their income is low or unacceptable, which means that on average they had greater problems covering their expenses than in 2007.

According to national and international findings, nursing students perform student work while studying. Evroštudent SI study (2007) found that the share of Slovenian students performing paid work while studying totalled 65 %, of which 8 % worked for short time (up to five hours a week); the number was lower with regard to students studying within the Bologna system. According to Evroštudent SI (2010), on average, Slovenian students performed 17 hours of paid work a week, spent twenty-one hours a week attending lectures, and seventeen hours on individual student work. The students whose parents had lower qualifications spent significantly more time on student work and earned correspondingly more. According to Evroštudent study (2005), there was no difference among genders in the share of students performing student work. Similar shares of student work exist in Austria (67 %), Germany (66 %), Finland (65 %) and Ireland (69 %). Study based on a sample of 45 British nursing students reports that most students begin working in nursing on the basis of their previous work experience (Hasson, et al., 2013).

Real costs involved in acquiring the title of nursing graduate were already studied in 1972 (Palese, et al., 2012). According to the authors, nursing students and their families face difficult decisions regarding financial costs and time dedicated to studying nursing. A qualitative Australian paper reports similar results, as it identifies high financial costs of nursing students during studies along with increased debt, which has a negative impact on the health and general well-being of students (Wray & McCall, 2007). In Australia, 90 % of students are reported to perform student work while studying (Kenny, et al., 2012). Most nursing undergraduate students perform their student work in health facilities and the service industries (Phillips,

et al., 2012). Holmes (2008) argues that while student work enables nursing students to develop social and communication competences, the main reason for working is financial.

Another important aspect of student work is gaining practical experience. In Australia, there are special programmes that help nursing students find work during studies. There has been a growing interest in employing nursing students for various jobs by employers in the relevant sector (Kenny, et al., 2012). Some employers use employment modules that were first introduced in Canada and the USA to employ nursing graduates (Alsup, et al., 2006; Hoffart, et al., 2006). Models differ with regard to the duration of work during studies, which can be either part-time or full-time employment. Studies on student employment models report that student work has a positive impact on clinical experience and improves socialisation process in clinical environments (Gamroth, et al., 2006; Hoffart, et al., 2006; Rebeschi & Aronson, 2009). According to the results of interviews on student work, nursing students were treated as equal colleagues, and had the same rights and duties as employees. Models have an impact on the employment of nursing students and strengthening the culture of learning. Student work is beneficial for students in terms of improving confidence, ability and effectiveness in clinical environment (Hasson, et al., 2013). In its recommendations for student work of undergraduate nursing students, the Australian senate promotes paid forms of fixed-term employment (Kenny, et al., 2012).

A large share of students has been found to perform jobs unrelated to their field of study. According to a survey on the work of students conducted by the National Unions of Students in Europe (ESIB, 2005), student work is generally not related to the field of study; this link exists only in Denmark. According to international findings, nursing students opt for student work of shorter duration in order to gain experience in a clinical environment (Hasson, et al., 2013).

Evroštudent study (2005) reports that 19 % of Slovenian full-time students dedicate up to 20 hours a week to course requirements, while 81 % dedicate over 20 hours. The student workload is greater only in three EU member states, particularly in Portugal, where as much as 95 % of the students dedicate over twenty hours a week to courses (lectures, tutorials). On average, students spend nineteen hours a week attending lectures and seminars, and further seventeen hours for individual studies. In addition, they spend nine hours on average doing paid work, which means that the total of working hours of an average student is fifty-two hours a week. Younger students spend more time on activities related to studies, and less on paid work. A greater total of hours of paid work does not affect the time dedicated to study as long as paid work does not exceed fifteen hours a week. Students with over fifteen hours of paid work commitments reduce all study-related activities to twenty-eight hours a week, while spending thirty-four hours a week working on average.

Student work of nursing students in Slovenia has not been studied so far. Student work can have both a positive and negative impact on student performance. In addition to learning about nursing in clinical environments, understanding the economic environment of students, including the determining factors affecting the student work, is significant for understanding the academic performance of nursing students, as all studies show that the amount of student work strongly predicts academic performance.

Purpose and goal

The purpose of the study was to acquire data on the prevalence, content and significance of student work among nursing students in relation to academic performance. The goal of the study was to determine the opinions and views of the nursing students on student work and the significance of several factors that contribute to deciding for student work. We focused on several research questions, including:

- How do nursing students assess their financial position during studies?
- To what extent do nursing students perform student work during studies?
- Why do students opt for working during studies?
- What is the correlation between the time dedicated to study and the time dedicated to student work?
- What is the correlation between the student work and academic performance?

Methods

Quantitative non-experimental research data gathered by surveying was used.

Description of the instrument

Based on a review of domestic and international scientific and expert literature (Evroštudent, 2005; ESIB, 2005; Evroštudent SI, 2007; Blatnik, 2007; Rochford, et al., 2009; Evroštudent SI, 2010; Kosi, et al., 2010; Phillips, et al., 2012; Salamonson, et al., 2012) a structured measurement instrument was designed: a questionnaire for nursing students. The students completed their demographic information and wrote their opinions on student work. The questionnaire had 92 statements or questions. A written questionnaire was the selected surveying technique. There was a combination of questions and statements, and both open- and close-ended questions were used. Close-ended questions were asked in such a way so that the respondents circled one answer, while some questions offered several answers, which was appropriately explained in the instructions. The questionnaire also

included dichotomous question, where respondents could select either answer 1 (indicating 'yes') or answer 2 (indicating 'no'). They were also able to indicate their level of agreement according to a Likert scale, where 1 indicated 'I completely disagree' and 5 indicated 'I completely agree', while intermediate level corresponded to levels of agreement between the both ends. With regard to some statements, respondents ranged their answers according to significance on a scale from 1 to 8, where 1 was 'the most significant' and 8 'the least significant'. The reliability of the questionnaire was tested with internal consistency analysis, which is the most useful method of establishing reliability of an instrument (Cencič, 2009). Cronbach co-efficient alfa formula was used. The questionnaire was divided into different thematic parts. The result of the reliability test in the part 'reasons for student work' was 0.753. In addition, factor analysis was used, where the reason 'working habits' was attributed to two factors, explaining for 77.86 % and 22.14 % of the variance, respectively. Both factors were named 'the significance of working habits of nursing students'. Reliability with regard to the part 'amount of student work' was 0.714, while with regard to the 'differences in student work according to individual higher-education institutions' it was 0.608.

Description of the sample

A purposive sample was employed when selecting higher-education institutions: the relevant institutions were selected according to their position in different geographical regions of Slovenia. Four higher education institutions offering nursing courses were selected. In order to ensure anonymity, the names of the institutions are not given; they are rather marked with letters A, B, C and D. Students of the 1st, 2nd and 3rd years of full time study participated in the survey. A convenience sample of students was used, as only the students that were actually present in the higher education institutions during the survey were included. The total number of students enrolled in the four higher education institutions was 1151. To gather data, 544 questionnaires were distributed, of which 432 were returned, which is a 79.4 % realisation. The share of returned questionnaires according to higher education institutions is presented in Table 1. Nursing students were categorised according to their year of study. First-year students present the highest share (41.2 %), followed by second year students (30.1 %) and third year students with 28.7 %. The level of education of parents was also determined: 66 % of the students' parents completed secondary school, 16.3 % had primary school education, while a low share (10.5 %) of parents completed a higher education college or university (6.2 %), and a very low share (0.81 %) of parents had postgraduate degrees.

Description of the course of research and data processing

Agreement to conduct a survey among the students was obtained with official letters, which were sent to nursing departments of the higher education institutions in the first stage of research. After obtaining written permissions from the department heads, we determined the surveying dates with the help of student enrolment and administration offices. At higher education institution A, the surveying was conducted with the help of employees of the student enrolment and administration office between 1 and 25 October 2012. The surveying of students at higher education institution B was conducted with the help of an interviewer on 1 October 2012. The surveying of students at higher education institution C was conducted with the help of an interviewer before lectures on 19 October 2012. The surveying of students at higher education institution D was conducted with the help of the teaching staff between 8 October and 30 November 2012. All respondents were ensured anonymity before the survey and a possibility to reject participation.

Data was statistically processed with SPSS 16.0 software. Data was processed with descriptive statistics. Chi-square, correlation analysis and ANOVA variance analysis were used. Factor analysis was used to establish correlations between variables and determine the variable that was common to all. Differences were

Table 1: *The returned questionnaires from higher education institutions*
Tabela 1: *Vrnjeni vprašalniki po posameznih visokošolskih zavodih*

Higher education institution/ Visokošolski zavod	**Number of distributed questionnaires *(n)*/ Število razdeljenih vprašalnikov (*n*)**	**Number of received questionnaires *(n)*/ Število prejetih vprašalnikov (*n*)**	**%**
B	125	119	95,2
C	119	110	92,4
D	150	104	69,3
A	150	99	66
Total	544	432	79,4

Legend/Legenda: n – number/ število; % – percentage/odstotek

considered for statistically significant data where the level of statistical significance was 0.05 or less.

Results

Within the research, we wished to establish how nursing students in different higher education institutions assess their financial position and if there are differences between students of different institutions. We found that there are no statistically significant difference among nursing student of different institutions regarding their financial position (F = 1.605, p = 0.189). Most nursing students report that their financial position is good, i. e. 59.1 % of nursing students in higher education institution C, 65.7 % of nursing students in higher education institution A, 57.7 % of nursing students in higher education institution D and 54.6 % of nursing students in higher education institution B. The smallest share of students that assessed their financial position as very bad attended higher education institution A (2 %).

In addition to their financial position, we were interested in the amount of student work. Factor analysis was used for testing. In the first part, principle components method was used to create a new variable, i. e. 'job workload', which is a linear combination of three variables referring to the amount of work: the weekly, monthly and annual totals of working hours. Analysis of job workload impact revealed that the number of hours of student work can be presented with only one factor, i. e. monthly total of working hours, which contributes to 75.9 % variation of the factor. With ANOVA variation analysis we established that the was a statistically significant different among students of different institutes in the monthly total of hours (F = 5.546, p = 0.001): students of higher education institution A report the least monthly hours of student work (n = 99, $\overline{x}$ = 19.9), while students of higher education institution B report the highest monthly total of hours of student work (n = 119, $\overline{x}$ = 48.5).

Reasons for student work of nursing students of individual higher education institutions were tested with chi-square. There are statistically significant differences among reasons for student work:

- own initiative (χ^2 = 17.007, p = 0.001): among nursing students that opted for student work on their own or on their own initiative, the largest number of students are from higher institution D (n = 87, 27.5 %);
- clinical practice (χ^2 = 11.817, p = 0.008): in total, 19 students of higher education institutions opted for student work due to clinical practice, of which 10 (52.6 %) were students of higher institutions D; the lowest number of students that opted for student work on the basis of clinical practice (5.3 %) attended higher institution A;
- gaining clinical experience (χ^2 = 11.599, p = 0.009): the highest number of students that opted for student work in order to gain clinical experience (n = 21) attended higher institution D, i. e. 36.8 % of all students whose reason for work was clinical experience, while the lowest number of these students attended higher institution A (14 %);
- meeting potential employers (χ^2 = 11.265, p = 0.010): as much as 37 % of students that were motivated by this reason attended higher education institution D, while the lowest percentage were from higher education institution A (7.4 %);
- employment prospects after graduation (χ^2 = 9.774, p = 0.021): the greatest percentage of students (37.1 %), whose reason for work was employment after graduation attended higher education institution D.

There are no statistically significant differences in reasons for student work among nursing students of higher education institutions: family wishes (χ^2 = 1.309, p = 0.727), recommendation of friends or colleagues (χ^2 = 1.842, p = 0.606), advertisements for student work (χ^2 = 7.021, p = 0.071).

Pearson correlation coefficient established no statistically significant correlation (r = –0.014, p = 0.776) between time dedicated to studies and job workload. We found that the greatest number of students (47.1 %) report that they dedicate between one and two hours a day to studying nursing, 27.2 % of students studied between 3 and 4 hours a day, 17.6 % of students studied over 6 hours and 8 % between 5 and 6 hours.

Table 2 presents correlation analysis of job workloads with performance parameters. We have found a statistically relevant correlation between actual amount of job workload and assessed burden of work (r = –0.195, p = 0.026). Correlation is weak and negative, which means that students that have greater job workload perceive it as less of a burden. There is no statistically significant correlation between job workload and assessment of obligations related to studies (r = –0.026, p = 0.587), average daily total of hours dedicated to study (r = –0.014, p = 0.076),

Table 2: *Correlation analysis of workloads with performance parameters*
Tabela 2: *Korelacijska analiza delovnih obremenitev s parametri uspešnosti*

Workloads/ Delovna obremenitev	***r***
Assessment of burden of work	–0.195**
Assessment of burden of study-related obligations	–0.026
Average daily total of hours dedicated to study	–0.014
Average mark achieved in passed exams	–0.006
Taking exams	0.054
Attendance at lectures	0.074

*Legend/Legenda: r – the correlation coefficient/korelacijski koeficient; ** limit statistically significant value at p = 0.01/ mejna statistično pomembna vrednost pri p = 0,01*

average mark achieved in passed exams (r = 0.006, p = 0.909), taking exams (r = 0.054, p = 0.260) and attendance at lectures (r = 0.074, p = 0.125).

Discussion

The results acquired from Slovenian nursing students can be interpreted via Evroštudent SI studies (Evroštudent, 2005; Evroštudent SI, 2007; 2010), which also studied students of other European countries. The conducted research reveals that nursing students of four higher education institutions offering nursing courses are satisfied with their financial position, as over a half indicate their financial position as good, which contradicts the Evroštudent SI study from 2010 that found that students were unhappy with their monthly income, regardless of whether they lived in their own households or with their parents. Data on the satisfaction with the financial status can also be supported with the data from the mentioned study (Evroštudent, 2005), which found that 34 % of all Slovenian students were satisfied with their financial position, while 25 % of students were less satisfied. This is an above-average level of satisfaction compared to other students in Europe, exceeded only by students in Spain, Finland and France. Based on the results on the level of satisfaction with financial position while studying nursing we can conclude that students are satisfied and do not have high financial costs, as there are no tuition fees. Higher education institutions are financed from the budget, i.e. from the funds earmarked for studies at the first and second levels of full-time study (Decree on Budgetary Financing of Higher Education Institutions and Other Institutions/Uredba o javnem financiranju visokošolskih zavodov in drugih zavodov, 2011).

We have established differences in the duration of student work among nursing student; with nursing students attending higher education institution A performing the least hours of student work, and the students of higher education institution B performing the most hours of student work. According to data from the Statistical Office of the Republic of Slovenia (2012), in November 2012, registered unemployment totalled 16.9 % in Pomurje region and 13.7 % in Podravje region, which is above national average. In Gorenjska region, the level of registered unemployment was low compared to other regions (9.2 %). Therefore, we have concluded that student work is a partial indicator of the labour market.

There are differences in the factors contributing to opting to work among the students. We have established that the greatest number of students studying at higher institution D opted for work on their own initiative on the basis of clinical practice, in order to acquire clinical experience, meet potential employers and improve employment prospects after graduation. Student work has been known to have a positive impact on finding the first job, which nursing students should be aware of during studies. According to Phillips and colleagues (2012), financial security, acquiring clinical experience and meeting potential employers are important factors for nursing students. Student work brings significant experiences similar to clinical practice. Study conducted by Krajnc (2007) summarises most replies with the statement that student work does not bring concrete experience like student practice does; however, most experiences acquired during student work are valuable and beneficial for the students in their further career.

The conducted research has established no correlation between the time that nursing students of all higher-education institutions dedicate to their studies and the time dedicated to student work. Nursing students do not provide correlations between their job workload, assessment of study commitments, average daily total of hours dedicated to studying, average marks, taking exams and attendance at lectures. Almost half of the nursing students dedicate between one and two hours a day to studies, which was be contributed to the academic timetable. Similar results were given by two Evroštudent studies (Evroštudent, 2005; Evroštudent SI, 2007), which found that 19 % of students dedicated up to 20 hours a week to study-related activities, while 81 % dedicated over 20 hours. Because nursing students in the conducted research performed between 19.9 and 48.5 hours of work per month, we can conclude that the amount does not affect performance parameters, as increasing the extent of job workload does not affect the time students spend on study-related activities, as long as the total of job commitments does not exceed 15 hours a week (Evroštudent, 2005). Students working over 20 hours a week broke the rules more often and suffered stress (Evans, et al., 2007). 20 hours of student work per week or less has negligible positive or negative impact on academic, psychological performance or behaviour of the young (Monahan, et al., 2011). A smaller share of British students found student work detrimental from the perspective of their professional role. According to findings, nursing students that performed student work wish that their acquired knowledge and experience were more recognised (Hasson, et al., 2013).

Acquired results provide an insight into the opinions of nursing students on academic performance and student work, which should be in the interest of relevant employers from the sector. We have established that further research is needed in the area of clinical practice of students that are in the 'transitional' period after completing their formal education and before starting their first job. The restrictions of the study should be considered, as the most motivated students participated, which is the effect of the convenience sample.

Conclusion

The results of the conducted research show that students of four higher education institutions offering

courses on nursing are satisfied with their financial position. According to students, there is a difference among the time spent on student work. Nursing students report that they have decided to work on their own initiative in order to acquire clinical experience, meet potential employers and employment prospects after graduation. They assessed there was no correlation between time dedicated to studying and student work nor the perceived burden of student work and academic obligations, average mark, taking exams and attendance at lectures.

Slovenian translation/Prevod v slovenščino

Uvod

Med dejavnike, ki bistveno vplivajo na stopnjo aktivnosti mladih in na njihov položaj na trgu delovne sile, spadata trajanje in kakovost izobraževanja. Ignjatović (2006) navaja, da gre po eni strani za povečano vlogo države pri spodbujanju izobraževanja mladih, po drugi strani pa za povečano ambicioznost samih mladih in njihovih staršev, saj pričakujejo, da jim bo vlaganje v več znanja in v višjo stopnjo izobrazbe zagotovilo boljši položaj na trgu delovne sile in v družbi na sploh. Poudarek visokošolskega izobraževanja je v povezovanju študentskega dela, študentskih izkušenj in učnih ciljev (Salamonson & Andrew, 2006). V okviru bolonjske prenove se pojavljajo težnje za opredelitev skupnega koncepta akademske uspešnosti študentov zdravstvene nege ter tudi težnje za opredelitev dejavnikov, ki vplivajo na uspešnost študentov v času študija (Dante, et al., 2011). Znano je, da se veliko mladih po končanem srednješolskem izobraževanju odloča za študij, ker pa si nekateri ne morejo zagotoviti štipendije ali drugih virov denarne pomoči, se odločajo tudi za študentsko delo, ki se izvaja na podlagi študentskih napotnic oz. s posredovanjem študentskih servisov (Šušteršič, et al., 2010). Delo lahko posredujejo s strani Ministrstva za delo, družino in socialne zadeve pooblaščene organizacije, ki imajo z ministrstvom sklenjeno pogodbo o koncesiji (Medjo, 2008). V današnjem času je na temo študentskega dela precej razprav, ki se v glavnem nanašajo na ekonomske učinke tovrstnega dela. Blatnik (2007) navaja, da je študentsko delo kot posebna oblika zaposlitve značilno za Slovenijo in da je pomemben inštrument za pokrivanje občasnih neskladij v delovnih procesih podjetij, saj so v Sloveniji delovna razmerja togo urejena.

Kerkvliet in Nowell (2005) sta analizirala teorije, kjer so proučevali vzroke izostankov študentov od študija, pri čemer sta se osredotočila na socialno-ekonomsko ozadje študentov. Ugotovila sta, da je pri študentih s slabšim socialno-ekonomskim statusom večja verjetnost, da prekinejo proces študija. Kot drugo determinanto navajata pomembnost akademske in socialne integracije, ki je definirana kot študentova identifikacija z univerzitetnimi, socialnimi in institucionalnimi normami v času študija. Pregledne raziskave med leti 1999 in 2011 navajajo, da na uspešnost študentov zdravstvene nege vplivajo demografski, akademski, kognitivni, vedenjski in osebnostni dejavniki (Pitt, et al., 2012). Tudi McGann in Thompson (2008) sta v raziskavi ugotavljali dejavnike, ki vplivajo na uspešnost študentov višjih letnikov. Raziskava je bila osredotočena na dejavnosti, ki študentu pripomorejo doseči uspeh v študijskem procesu, ter na vpliv mentorstva na vedenje študentov. Ugotovili sta, da je upravljanje s časom pomemben dejavnik za uspešnost študentov v času študija. Časovni obseg študija v domačem okolju ter udeležba na predavanjih sta močna napovedovalca uspešnosti študentov zdravstvene nege, medtem ko študentsko delo spada med negativne dejavnike (Salamonson, et al., 2009). Znano je tudi, da študentsko delo vpliva na prehodnost študentov, saj podatki raziskovalnega projekta (Šušteršič, et al., 2010) kažejo, da je pri slovenskih študentih stopnja prehoda najnižja po prvem letniku študija, vendar so razlike med letniki relativno majhne. Študentje, ki so opravili več kot šestnajst ur študentskega dela tedensko, so poročali o slabšem učnem uspehu, poleg tega pa je večje število opravljenih ur imelo negativen vpliv na ostale dejavnike uspešnosti študija (Rochford, et al., 2009). Krajnc (2007) med slabostmi študentskega dela navaja podaljševanje študija in izgubo motivacije za študij, v kolikor je študentsko delo atraktivno, navaja pa tudi, da se veliko študentov strinja, da opravlja študentsko delo zaradi omogočanja preživetja ob študiju, pridobivanja delovnih izkušenj in izboljšanja svojega študentskega položaja (potovanje, družabnost). Izsledki raziskave Evroštudent SI iz leta 2010 so v primerjavi s predhodno raziskavo Evroštudent SI iz leta 2007 opozorili na določene razlike, znižal se je npr. odstotek študentov, ki menijo, da imajo sprejemljive prihodke, kar močno pa se je povečal odstotek študentov, ki imajo nezadovoljive ali slabe prihodke, kar pomeni, da imajo študenti v povprečju večje težave s pokrivanjem stroškov kot v letu 2007.

Nacionalni in mednarodni dokazi kažejo, da se študenti zdravstvene nege v času študija srečajo s študentskim delom. Raziskava Evroštudent SI (2007) je pokazala, da znaša delež vseh slovenskih študentov, ki med študijem opravljajo plačano delo, 65 %; 8 % študentov opravlja dela krajši čas (do pet ur tedensko), pri študentih bolonjskega načina študija pa je ur študentskega dela manj. Raziskava Evroštudent SI (2010) je podala rezultate, da slovenski študenti v povprečju namenijo sedemnajst ur tedensko plačanemu delu, enaindvajset ur namenijo udeležbi na predavanjih ter sedemnajst ur individualnemu študentskemu delu. Tisti študentje, katerih starši imajo nižjo izobrazbo, za študentsko delo porabijo občutno več časa, primerno temu pa tudi več zaslužijo. Po

podatkih raziskave Evroštudent (2005) ni bilo opaziti razlike med spoloma v deležu študentov, ki opravljajo študentsko delo. Delež opravljanja študentskega dela, primerljiv s slovenskim deležem, dosegajo Avstrija (67 %), Nemčija (66 %), Finska (65 %) in Irska (69 %). Raziskava na vzorcu 45 britanskih študentov zdravstvene nege navaja, da večina študentov pričnе s študentskim delom v zdravstveni negi na osnovi predhodnih delovnih izkušenj (Hasson, et al., 2013).

Z dejanskim obsegom stroškov za pridobitev diplome za poklic diplomirana medicinska sestra so se pričeli ukvarjati že leta 1972 (Palese, et al., 2012). Avtorji navajajo, da se študenti zdravstvene nege ter njihove družine v času študija soočajo s težkimi odločitvami glede finančnih stroškov in časa, namenjenega študiju zdravstvene nege. Podobno poročajo tudi rezultati kvalitativne avstralske raziskave, ki navaja, da imajo študenti zdravstvene nege visoke finančne stroške v času študija, večajo se jim tudi javni dolgovi, kar ima negativen vpliv na zdravje in na splošno počutje študentov (Wray & McCall, 2007). V Avstraliji poročajo, da v času študija študentsko delo opravlja 90 % študentov (Kenny, et al., 2012). Večina dodiplomskih študentov zdravstvene nege v času študija opravlja študentsko delo v zdravstvenih zavodih ter v storitvenih dejavnostih (Phillips, et al., 2012). Holmes (2008) ugotavlja, da vpetost v študentsko delo študentu zdravstvene nege omogoča razvijanje socialnih in komunikacijskih kompetenc, vendar je pri študentih osnovni vzrok za študentsko delo finančne narave.

Drug pomemben vidik študentskega dela je pridobivanje praktičnih izkušenj. V Avstraliji imajo posebej izoblikovane programe, ki študentom zdravstvene nege pomagajo pri iskanju dela v času študija. Ugotovljeno je bilo, da pri delodajalcih s področja zdravstvene nege narašča zanimanje za različne oblike zaposlitev študentov zdravstvene nege (Kenny, et al., 2012). Nekateri delodajalci s področja zdravstvene nege se pri tem poslužujejo modelov zaposlovanja, ki so se sicer najprej pojavili v kanadskem in ameriškem prostoru predvsem zaradi potrebe po zaposlovanju diplomantov zdravstvene nege (Alsup, et al., 2006; Hoffart, et al., 2006). Modeli se razlikujejo po časovnem obsegu dela v času študija, ki je lahko v obliki krajšega delovnega časa ali polne zaposlitve. Izsledki raziskav o študentih, ki sodelujejo v modelih zaposlovanja, poročajo, da študentsko delo v času študija pozitivno vpliva na pridobivanje kliničnih izkušenj in izboljšuje proces socializacije študentov v kliničnih okoljih (Gamroth, et al., 2006; Hoffart, et al., 2006; Rebeschi & Aronson, 2009). Kot navajajo rezultati intervjujev o delu študentov v času študija, so študenti zdravstvene nege v času študentskega dela obravnavani kot enakovredni člani, ki imajo iste pravice in dolžnosti kot zaposleni. Modeli imajo vpliv na zaposlovanje študentov zdravstvene nege in na krepitev kulture učenja. Študentsko delo je koristno za študente z vidika krepitve samozaupanja, sposobnosti in učinkovitosti v kliničnem okolju (Hasson, et al., 2013). Avstralski senat v priporočilih za študentsko delo v zdravstveni negi pri študentih zdravstvene nege dodiplomskih programov spodbuja zagotavljanje plačljivih oblik zaposlitev za določen čas (Kenny, et al., 2012).

Ugotovljeno je, da visok delež študentov opravlja dela, ki niso povezana z njihovim študijem. Anketna raziskava o delu študentov, ki jo je izvedla Skupščina Zveze nacionalnih študentskih organizacij Evrope (ESIB, 2005), je ugotovila, da ni povezave med vrsto študija in študentskim delom, tovrstna povezava je bila ugotovljena samo na Danskem. Mednarodni dokazi kažejo, da se študenti zdravstvene nege z namenom pridobiti izkušnje v kliničnem okolju odločajo za študentsko delo v krajšem obsegu (Hasson, et al., 2013).

Raziskava Evroštudent (2005) je podala rezultate, da 19 % slovenskih študentov rednega študija študijskim obveznostim nameni do dvajset ur na teden, 81 % pa nad dvajset ur tedensko. Le v treh državah Evropske unije so študenti časovno še bolj obremenjeni kot pri nas, najbolj na Portugalskem, kjer jih kar 95 % za študij (predavanja, vaje) nameni več kot dvajset ur na teden. V povprečju študenti preživijo devetnajst ur tedensko na predavanjih in vajah, naslednjih sedemnajst ur pa jim vzame individualno študentsko delo. Ob tem namenijo devet ur tedensko plačanemu delu, skupaj torej traja delovnik povprečnega študenta dvainpetdeset ur tedensko. Mlajši študenti porabijo več časa za dejavnosti, povezane s študijem, manj pa za plačano delo. Povečevanje obsega delovnih obremenitev nima vpliva na čas, ki ga študenti namenijo študijskim aktivnostim, dokler obseg delovnih obveznosti ne preseže petnajst ur na teden. Pri študentih, ki delajo petnajst ur in več, se vse s študijem povezane aktivnosti zreducirajo na osemindvajset ur na teden, delovne pa trajajo v povprečju štiriintrideset ur.

Tematika študentskega dela v zdravstveni negi v slovenskem prostoru je neraziskana. Študentsko delo ima lahko v času študija pozitivne in negativne učinke na uspešnost študentov. Razumevanje študentskega ekonomskega okolja, vključno z determinantami, ki vplivajo na študentsko delo je poleg vpogleda v izvajanje zdravstvene nege v kliničnih okoljih pomembno za razumevanje uspešnosti študentov zdravstvene nege v času študija, saj raziskave o opravljanju študentskega dela ugotavljajo, da je obseg študentskega dela močan napovedovalec uspešnosti študija.

Namen in cilj

Namen raziskave je bil pridobiti podatke o razširjenosti, vsebini in pomenu študentskega dela pri študentih zdravstvene nege za uspešnost študija. Cilj raziskave je bil ugotoviti mnenja in stališča študentov zdravstvene nege o študentskem delu in ugotoviti

pomen nekaterih dejavnikov, ki pogojujejo odločanje za študentsko delo. V okviru raziskovalnih vprašanj nas je zanimalo:
- kako študenti zdravstvene nege ocenjujejo svoj finančni status v času študija;
- v kolikšnem obsegu študenti zdravstvene nege opravljajo študentsko delo v času študija;
- kaj so vzroki za študentsko delo v času študija;
- kakšna je povezava med časom, namenjenim študiju, in časom, namenjenim študentskemu delu;
- kakšna je povezanost med obremenitvijo s študentskim delom in študijsko uspešnostjo.

Metode

Uporabili smo kvantitativno neeksperimentalno raziskovanje, podatke smo zbirali s tehniko anketiranja.

Opis instrumenta

Na osnovi pregledane znanstvene in strokovne literature v domačem in v tujem prostoru (Evroštudent, 2005; ESIB, 2005; Evroštudent SI, 2007; Blatnik, 2007; Rochford, et al., 2009; Evroštudent SI, 2010; Kosi, et al., 2010; Phillips, et al., 2012; Salamonson, et al., 2012) smo izdelali strukturiran merski instrument – vprašalnik za študente zdravstvene nege. Študenti zdravstvene nege so v vprašalniku podali svoje demografske podatke ter mnenja in stališča do študentskega dela. Vprašalnik je vseboval 92 trditev oz. vprašanj. Kot tehniko zbiranja podatkov smo uporabili pisno anketiranje. Vprašanja oz. trditve so bile kombinirano sestavljene, pri čemer smo uporabili tip odprtih in zaprtih vprašanj. Vprašanja zaprtega tipa so bila postavljena tako, da so anketiranci obkrožili en odgovor; pri nekaterih vprašanjih je bilo možnih več odgovorov, kar je bilo v navodilih ustrezno pojasnjeno. Vprašalnik je vseboval tudi dihotomna vprašanja, pri katerih so anketiranci lahko obkrožili odgovor 1 (kar je pomenilo »da«) ali odgovor 2 (kar je pomenilo »ne«). Opredelili so se lahko tudi do trditev na lestvici Likertovega tipa, kjer je izbor 1 pomenil »nikakor se ne strinjam«, 5 »zelo se strinjam«, vmesne ocene pa so ustrezale vmesni stopnji strinjanja. Pri nekaterih trditvah so anketiranci odgovore razvrščali po pomembnosti, v razponu od 1 do 8, pri čemer je 1 pomenilo »najbolj pomembno« in 8 »najmanj pomembno«. Zanesljivost vprašalnika smo preverjali z metodo analize notranje konsistentnosti, ki je tudi najbolj uporaben način ugotavljanja zanesljivosti instrumenta (Cencič, 2009). Uporabili smo formulo Cronbachov koeficient alfa. Vprašalnik smo razdelili po vsebinskih sklopih. Test zanesljivosti pri sklopu »vzroki za študentsko delo« je znašal 0,753. Uporabili smo tudi faktorsko analizo, kjer smo pri vzroku »delovne navade« prejeli dva faktorja, prvi faktor je pojasnjeval 77,86 % in drugi 22,14 % variance. Oba faktorja smo poimenovali »pomen delovnih navad študentov zdravstvene nege«. Test zanesljivosti je pri sklopu »obseg študentskega dela« znašal 0,714, pri sklopu »razlike v študentskem delu po posameznih visokošolskih zavodih« pa 0,608.

Opis vzorca

Pri izbiri visokošolskih zavodov smo uporabili namenski vzorec, ker smo visokošolske zavode s področja zdravstvene nege izbrali ciljno glede na njihovo regijsko umestitev, ki sega na področje različnih geografskih regij v Sloveniji. Vključili smo štiri visokošolske zavode s področja zdravstvene nege. Zaradi zagotavljanja anonimnosti visokošolskih zavodov v nadaljevanju članka ne prikazujemo imen visokošolskih zavodov, ampak jih označujemo s črkami A, B, C in D. V raziskavi so sodelovali študenti 1., 2. in 3. letnika rednega študija. Vzorec študentov je bil priročen, saj smo v izvedbo raziskave vključili tiste študente, ki so bili v času raziskave prisotni v visokošolskih zavodih. Celotna populacija vpisanih študentov v izbranih visokošolskih zavodih je štela 1151 študentov. Za izvedbo zbiranja podatkov smo razdelili 544 vprašalnikov, vrnjenih je bilo 432, kar predstavlja 79,4% realizacijo načrtovanega vzorca. Delež vrnjenih vprašalnikov po posameznih visokošolskih zavodih prikazujemo v Tabeli 1. Študente zdravstvene nege smo ločili tudi po letnikih študija. Največji delež študentov v raziskavi predstavljajo študenti 1. letnika (41,2 %), sledijo študenti 2. letnika (30,1 %) in nato študenti

Tabela 1: *Vrnjeni vprašalniki po posameznih visokošolskih zavodih*
Table 1: *The returned questionnaires from higher education institutions*

Visokošolski zavod/ Higher education institution	**Število razdeljenih vprašalnikov (*n*)/ Number of distributed questionnaires (*n*)**	**Število prejetih vprašalnikov (*n*)/ Number of received questionnaires (*n*)**	**%**
B	125	119	95,2
C	119	110	92,4
D	150	104	69,3
A	150	99	66
Skupaj	544	432	79,4

Legenda/Legend: n – število/number; % – odstotek/percentage

3. letnika, ki predstavljajo 28,7 % vseh študentov v vseh sodelujočih visokošolskih zavodih s področja zdravstvene nege. Ugotavljali smo tudi izobrazbeno strukturo staršev študentov in ugotovili, da ima 66 % staršev srednješolsko izobrazbo, 16,3 % osnovnošolsko izobrazbo, nizek delež (10,5 %) predstavljajo starši z višješolsko izobrazbo in starši z visoko strokovno izobrazbo (6,2 %), zelo nizek delež (0,81 %) staršev anketirancev ima zaključen magisterij ali doktorat.

Opis poteka raziskave in obdelave podatkov

Dogovori o poteku raziskave za anketiranje študentov zdravstvene nege so potekali v obliki uradnih dopisov, ki smo jih v prvi fazi raziskave poslali na Katedre za zdravstveno nego visokošolskih zavodov. Po prejetem pisnem dovoljenju s strani predstojnic kateder za zdravstveno nego smo s pomočjo referatov za študijske in študentske zadeve pridobili datume za anketiranje študentov zdravstvene nege po posameznih letnikih. Na visokošolskem zavodu A smo anketiranje študentov izvedli s pomočjo zaposlenih v referatu za študijske in študentske zadeve, in sicer v času 1.–25. 10. 2012. Anketiranje študentov visokošolskega zavoda B smo izvedli s pomočjo anketarja raziskave, 1. 10. 2012. Anketiranje na visokošolskem zavodu C smo izvedli s pomočjo anketarja raziskave v času pred predavanji, 19. 10. 2012. Na visokošolskem zavodu D smo anketiranje študentov zdravstvene nege izvedli s pomočjo zaposlenih pedagoških delavcev, 8. 10.–30. 11. 2012. Vsem anketirancem smo pred izvedbo raziskave zagotovili anonimnost in možnost zavrnitve sodelovanja v raziskavi.

Statistično obdelavo podatkov smo izvedli s programom SPSS 16.0. Podatke smo obdelali s pomočjo opisne statistike. Uporabili smo hi – kvadrat, korelacijsko analizo in analizo variance – ANOVA. Z metodo faktorske analize smo ugotovili povezave med spremenljivkami, in tako pridobili spremenljivko, ki je predstavljala to, kar je bilo skupnega vsem opazovanim spremenljivkam. Za statistično pomembne podatke smo upoštevali razlike, kjer je bila stopnja statistične pomembnosti na ravni 0,05 ali manj.

Rezultati

V okviru raziskave smo želeli ugotoviti, kako študenti zdravstvene nege po posameznih visokošolskih zavodih ocenjujejo svoj finančni status in ali se pri tem pri študentih pojavljajo razlike glede na posamezne visokošolske zavode. Ugotovili smo, da v oceni lastnega finančnega statusa študentov zdravstvene nege po posameznih visokošolskih zavodih ni statistično pomembnih razlik (F = 1,605, p = 0,189). Največ študentov zdravstvene nege navaja, da je njihov finančni status dober, in sicer 59,1 % študentov zdravstvene nege visokošolskega zavoda C, 65,7 % študentov visokošolskega zavoda A, 57,7 % študentov visokošolskega zavoda D in 54,6 % študentov visokošolskega zavoda B. Da je njihov finančni status zelo slab, v najmanjšem deležu ocenjujejo študenti visokošolskega zavoda A (2 %).

Poleg finančnega statusa nas je v okviru raziskave zanimal tudi obseg študentskega dela. Za testiranje smo uporabili faktorsko analizo. V prvem delu smo z metodo glavnih komponent ustvarili novo spremenljivko, tj. »obremenitev s študentskim delom«, ki je linearna kombinacija treh spremenljivk, ki se nanašajo na obseg dela: število delovnih ur na teden, število delovnih ur na mesec in število delovnih ur na leto. Analiza vpliva delovnih obremenitev je pokazala, da lahko število ur študentskega dela prikažemo le z enim faktorjem, tj. s številom delovnih ur študentskega dela na mesec, kar pojasnjuje 75,9 % variance faktorja. S pomočjo analize variance – ANOVA, smo ugotovili, da med študenti različnih zavodov obstaja statistično pomembna razlika v številu mesečnih ur študentskega dela (F = 5,546, p = 0,001): študentje visokošolskega zavoda A navajajo najmanj mesečnih ur študentskega dela (n = 99, $\overline{x}$ = 19,9), študenti visokošolskega zavoda B navajajo največ mesečnih ur študentskega dela (n = 119, $\overline{x}$ = 48,5).

Vzroke za študentsko delo pri študentih zdravstvene nege med posameznimi visokošolskimi zavodi smo testirali s pomočjo hi – kvadrat. Med študenti različnih visokošolskih zavodih smo ugotovili statistično pomembne razlike pri vzrokih za odločanje za študentsko delo:

- lastna iniciativa (χ^2 = 17,007, p = 0,001): med študenti zdravstvene nege, ki so se za študentsko delo odločili sami oz. na lastno iniciativo, je največ študentov z visokošolskega zavoda D (n = 87, 27,5 %);
- klinična praksa (χ^2 = 11,817, p = 0,008): 19 študentov vseh visokošolskih zavodov se je za študentsko delo odločilo na osnovi klinične prakse, od tega je 10 študentov (52,6 %) z visokošolskega zavoda D; najmanj študentov, ki so se za študentsko delo odločili na osnovi klinične prakse (5,3 %), je z visokošolskega zavoda A;
- pridobivanje kliničnih izkušenj (χ^2 = 11,599, p = 0,009): za študentsko delo se je zaradi pridobivanja kliničnih izkušenj (n = 21) odločilo največ študentov z visokošolskega zavoda D, in sicer je le-teh 36,8 % vseh študentov, ki so se odločili za delo iz tega vzroka; izmed vseh visokošolskih zavodov je najmanj študentov, ki so se odločili za študentsko delo na podlagi pridobivanja kliničnih izkušenj, z visokošolskega zavoda A (14 %);
- spoznavanje potencialnih delodajalcev (χ^2 = 11,265, p = 0,010): kar 37 % študentov, ki so se za študentsko delo odločili iz tega razloga, je z visokošolskega zavoda D, najmanj jih je z zavoda A (7,4 %);
- možnosti zaposlitve po končani diplomi (χ^2 = 9,774, p = 0,021): največ študentov (37,1 %), ki so se za študentsko delo odločili zaradi zaposlitve po diplomi, je z visokošolskega zavoda D.

Statistično pomembnih razlik v odločanju za študentsko delo med študenti zdravstvene nege med posameznimi visokošolskimi zavodi ni pri naslednjih vzrokih: na željo domačih (χ^2 = 1,309, p = 0,727), na priporočilo prijateljev in sošolcev (χ^2 = 1,842, p = 0,606), zaradi razpisov za študentsko delo (χ^2 = 7,021, p = 0,071).

S pomočjo Pearsonovega koeficienta korelacije ugotovimo, da ni statistično pomembne povezave (r = –0,014, p = 0,776) med časom, ki ga študenti posvetijo študiju, in delovno obremenitvijo v času študentskega dela. Ugotovili smo, da največ študentov (47,1 %) navaja, da študiju zdravstvene nege nameni 1–2 uri dnevno, 27,2 % študentov dnevno študira 3–4 ure, 17,6 % jih dnevno študira več kot 6 ur in 8 % 5–6 ur.

V Tabeli 2 prikazujemo korelacijsko analizo delovnih obremenitev s parametri uspešnosti pri študentih. Ugotavljamo, da obstaja statistično značilna povezava med dejanskimi delovnimi obremenitvami študentov in oceno obremenitev s študentskim delom (r = –0,195, p = 0,026). Korelacija je šibka in negativna, kar pomeni, da študenti, ki so bolj obremenjeni s študentskim delom, svoje obremenitve ocenjujejo za manj obremenjujoče. Statistično pomembne povezave ni med delovnimi obremenitvami in oceno študijskih obveznosti (r = –0,026, p = 0,587), povprečnim številom dnevnih ur študija (r = –0,014, p = 0,076); povprečno oceno opravljenih izpitov (r = 0,006, p = 0,909), pristopom k izpitom (r = 0,054, p = 0,260) in udeležbo na predavanjih (r = 0,074, p = 0,125).

Tabela 2: *Korelacijska analiza delovnih obremenitev s parametri uspešnosti*
Table 2: *Correlation analysis of workloads with performance parameters*

Delovna obremenitev/ Workloads	***r***
Ocena obremenitev s študentskim delom	–0,195**
Ocena obremenitev s študijskimi obveznostmi	–0,026
Povprečno število ur študija dnevno	–0,014
Povprečna ocena opravljenih izpitov	–0,006
Pristop k izpitom	0,054
Udeležba na predavanjih	0,074

*Legenda/Legend: r – korelacijski koeficient/the correlation coefficient; **mejna statistično pomembna vrednost pri p = 0,01/ limit statistically significant value at p = 0.01*

Diskusija

Rezultate slovenskih študentov zdravstvene nege lahko razlagamo z raziskavami Evroštudent SI (Evroštudent, 2005; Evroštudent SI, 2007; 2010), ki poleg slovenskih študentov proučujejo tudi študente drugih držav v Evropi. Z izvedeno raziskavo smo ugotovili, da so študentje zdravstvene nege v štirih visokošolskih zavodih v Sloveniji zadovoljni s svojim finančnim statusom, saj se je več kot polovica študentov opredelila, da je njihov finančni status dober, kar je v nasprotju z raziskavo Evroštudent SI iz leta 2010, ki je ugotovila, da študenti niso zadovoljni s svojim mesečnim prihodkom, ki je neodvisen od tega, ali so študenti v času študija v lastnem gospodinjstvu ali pri starših. Pridobljene podatke o zadovoljstvu študentov zdravstvene nege s finančnim statusom lahko podpremo tudi s podatki omenjene raziskave (Evroštudent, 2005), ki je ugotovila, da je bilo 34 % vseh slovenskih študentov zadovoljnih s svojim finančnim statusom, manj zadovoljnih je bilo 25 % študentov, kar je torej slovenske študente uvrščalo med tiste študente v Evropi, ki so bili bolj zadovoljni, prekašali so jih le kolegi iz Španije, Finske in Francije. Na osnovi rezultatov o zadovoljstvu s finančnim statusom v času študija zdravstvene nege lahko sklepamo, da so študenti zadovoljni, da ne utrpijo visokih finančnih stroškov, saj za izvajanje rednega študija študenti oz. njihovi starši ne plačujejo šolnine. Visokošolskim zavodom se iz proračuna dodeljujejo sredstva za študijsko dejavnost za prvo in drugo stopnjo rednega študija (Uredba o javnem financiranju visokošolskih zavodov in drugih zavodov, 2011).

Ugotovili smo, da med študenti zdravstvene nege v vseh visokošolskih zavodih obstaja razlika v časovnem obsegu študentskega dela, pri čemer najmanj ur študentskega dela izvedejo študenti zdravstvene nege visokošolskega zavoda A in največ študenti visokošolskega zavoda B. Po podatkih Statističnega urada Republike Slovenije (2012) je novembra 2012 v pomurski regiji stopnja registrirane brezposelnosti znašala 16,9 % in v podravski regiji 13,7 %, kar je nad slovenskim povprečjem. Stopnja registrirane brezposelnosti je bila v gorenjski regiji v primerjavi z drugimi regijami nizka (9,2 %). Sklepamo torej, da študentsko delo lahko deloma predstavlja kazalnik trga dela.

Med študenti zdravstvene nege obstajajo razlike v odločilnih dejavnikih za opravljanje študentskega dela. Ugotovili smo, da se je največ študentov visokošolskega zavoda D odločilo za študentsko delo na lastno pobudo, na osnovi klinične prakse, zaradi pridobivanja kliničnih izkušenj, spoznavanja potencialnih delodajalcev in zaradi možnosti za zaposlitev po diplomi. Znano je, da študentsko delo pozitivno vpliva na iskanje prve zaposlitve, česar se morajo študenti zdravstvene nege zavedati že v času študija. Finančna varnost, pridobivanje kliničnih izkušenj, spoznavanje potencialnih delodajalcev so, kot navaja Phillips s sodelavci (2012), pomembni dejavniki za študente zdravstvene nege. Študentsko delo prinaša pomembne izkušnje, ki so podobne klinični praksi. Raziskava Krajnc (2007) večino odgovorov strni v trditev, da študentsko delo ne prinaša konkretnih izkušenj kot študijska praksa, je pa večina izkušenj, pridobljenih pri študentskem delu, dragocena in študentom v prid pri njihovi nadaljnji poklicni karieri.

V izvedeni raziskavi smo ugotovili, da ni povezave med časom, ki ga študenti zdravstvene nege vseh visokošolskih zavodov namenijo študiju, in časom, ki je namenjen študentskemu delu. Študenti zdravstvene nege ne navajajo povezav med obremenitvami s študentskim delom, oceno študijskih obveznosti, povprečnim dnevnim številom ur študija, povprečno oceno opravljenih izpitov, pristopom k opravljanju izpitov in udeležbo na predavanjih. Skoraj polovica študentov zdravstvene nege študiju povprečno namenja eno do dve uri na dan, kar lahko deloma pripišemo samemu študijskemu urniku. Podobno ugotavljata dve raziskavi Evroštudent (Evroštudent, 2005; Evroštudent SI, 2007), ki navajata, da 19 % študentov v povprečju porabi do 20 ur na teden za študijske aktivnosti, 81 % študentov pa nad 20 ur. Ker študenti zdravstvene nege v izvedeni raziskavi izvedejo od 19,9 do 48,5 ur študentskega dela mesečno, lahko sklepamo, da omenjeni obseg ne vpliva na parametre uspešnosti, saj je bilo ugotovljeno, da povečevanje obsega delovnih obremenitev nima vpliva na čas, ki ga študenti namenijo študijskim aktivnostim, vse dokler obseg delovnih obveznosti ne preseže 15 ur na teden (Evroštudent, 2005). Študenti, ki so bili zaposleni več kot 20 ur tedensko, so bili bolj pogosto v prestopniških dejanjih in so pogosto utrpeli stres (Evans, et al., 2007). Obseg 20 ur študentskega dela na teden ali manj ima zanemarljive pozitivne in negativne posledice na akademske, psihološke ali vedenjske rezultate mladih (Monahan, et al., 2011). Manjši delež britanskih študentov je študentsko delo zaznal kot škodljivo z vidika profesionalne vloge. Ugotovitve so pokazale, da si študenti zdravstvene nege, ki so opravljali študentsko delo, želijo več priznavanja pridobljenih izkušenj in znanj (Hasson, et al., 2013).

Pridobljeni rezultati raziskave dajejo vpogled v mnenja študentov zdravstvene nege o uspešnosti študija in študentskem delu, kar naj bi bilo tudi v interesu delodajalcev s področja zdravstvene nege. Ugotavljamo, da je potrebna nadaljnja raziskava na področju klinične prakse študentov, ki se nahajajo v »prehodnem« obdobju oz. v obdobju po končanem formalnem izobraževanju, tj. pred prvo zaposlitvijo. Upoštevati je potrebno omejitve raziskave, ki se kažejo predvsem v pridobitvi najbolj motiviranih študentov zdravstvene nege za sodelovanje v raziskavi, kar je posledica nenaključnega vzorčenja.

Zaključek

Izvedena raziskava je podala rezultate, da so študenti zdravstvene nege v štirih visokošolskih zavodih zadovoljni s svojim finančnim statusom v času študija. Med posameznimi visokošolskimi zavodi se je po navedbah študentov zdravstvene nege pojavila razlika v časovnem obsegu študentskega dela. Študenti zdravstvene nege so navedli, da so se za študentsko delo odločili sami, na osnovi klinične prakse, zaradi želje po pridobivanju kliničnih izkušenj, spoznavanja potencialnih delodajalcev in zaradi možnosti za zaposlitev po končani diplomi. Ocenili so, da ni povezave med časom namenjenim študiju in časom, ki je namenjen študentskemu delu, prav tako ne med obremenitvami s študentskim delom in oceno študijskih obveznosti, povprečno oceno opravljenih izpitov, pristopov k opravljanju izpitov in udeležbo na predavanjih.

Literatura

Alsup, S., Emerson, L.A., Lindell, A.R., Bechtle, M. & Whitmer, K., 2006. Nursing cooperative partnership: a recruitment benefit. *Journal of Nursing Administration,* 36(4), pp. 163-166. http://dx.doi.org/10.1097/00005110-200604000-00001 PMid:16609334

Blatnik, K., 2007. *Študentsko delo v interesu države, delodajalcev in študentov: magistrsko delo*. Ljubljana: Univerza v Ljubljani, Ekonomska fakulteta, pp. 1-3.

Cencič, M., 2009. *Kako poteka pedagoško raziskovanje: primer kvantitativne empirične neeksperimentalne raziskave*. Ljubljana: Zavod Republike Slovenije za šolstvo.

Dante, A., Valoppi, G., Saiani, L. & Palese, A., 2011. Factors associated with nursing students' academic success or failure: a retrospective Italian multicenter study. *Nurse Education Today.* 31(1), pp. 59-64. http://dx.doi.org/10.1016/j.nedt.2010.03.016 PMid:20423750

ESIB, 2005. *Bologna with student eyes*. Bergen: The National Units of Students in Europe. Available at: http://www.ond.vlaanderen.be/hogeronderwijs/bologna/documents/Bolognastudenteyes2005.pdf [28. 8. 2014].

Evans, W., Brown, G., Timmins, F. & Nicholl, H., 2007. An exploratory study identifying the programme related stressors amongst qualified nurses completing part-time degree courses. *Nurse Education Today*, 27(7), pp. 731-738. http://dx.doi.org/10.1016/j.nedt.2006.10.015 PMid:17174014

Evroštudent 2005: ekonomski in socialni položaj ter mednarodna mobilnost študentov v Sloveniji, 2005. Ljubljana: Ministrstvo za visoko šolstvo, znanost in tehnologijo.

Evroštudent SI 2007: ekonomski in socialni položaj ter mednarodna mobilnost študentov v Sloveniji. Ljubljana: Ministrstvo za visoko šolstvo, znanost in tehnologijo. Available at: http://www.arhiv.mvzt.gov.si/fileadmin/mvzt.gov.si/pageuploads/doc/dokumenti_visokosolstvo/statistika_visokosolstvo/evrostudent.si.2007.pdf. [5. 1. 2013].

Evroštudent SI 2010: ekomomski, socialni, bivalni položaj in mednarodna mobilnost študentov v Sloveniji. Ljubljana: Ministrstvo

za visoko šolstvo, znanost in tehnologijo. Available at : http://www.arhiv.mvzt.gov.si/fileadmin/mvzt.gov.si/pageuploads/doc/dokumenti_visokosolstvo/KNJIZNICA/Eurostudent_SI_2010.pdf [28. 8. 2014].

Gamroth, L., Budgen, C. & Lougheed, M., 2006. Feasibility and outcomes of paid undergraduate student nurse positions. *Nursing Leadership (Tor Ont).* 19(3), pp. e1-e14. http://dx.doi.org/10.12927/cjnl.2006.19032 PMid:19830923

Hasson, F., McKenna, H.P. & Keeney S., 2013. A qualitative study exploring the impact of student nurses working part time as a health care assistant. *Nurse Education Today*, 33(8), pp. 873-879. http://dx.doi.org/10.1016/j.nedt.2012.09.014 PMid:23159073

Hoffart, N., Diana, J., Connors. M. & Moynihan, P., 2006. Outcomes of a cooperative education in a baccalaureate program in nursing. *Nursing Education Perspective,* 27(3), pp. 136–143.

Holmes, V., 2008. Working to live: why university students balance full - time study and employment? *Emerald Group Publishing Limited*, 50(4), pp. 305-314.

Ignjatović, M., 2006. Položaj mladih na trgu delovne sile. *IB revija*, 40(4), pp. 66-69.

Kenny, A., Narkervis, K., Kidd, T. & Connell, S., 2012. Models of nursing student employment: an Australian action research study. *Nurse Education Today*, 32(5), pp. 600-605. http://dx.doi.org/10.1016/j.nedt.2011.08.005 PMid:21920642

Kerkvliet, J. & Nowell, C., 2005. Does one size fit all? University differences in the influence of wages, financial aid, and integration on student retention. *Economics of Education Review*, 24(1), pp. 85-95. http://dx.doi.org/10.1016/j.econedurev.2004.03.009

Kosi, T., Nastav, B. & Šušteršič, J., 2010. Pomen študentskega dela z vidika trga dela in uspešnosti študija. *IB revija,* 44(3-4), pp. 65-80.

Krajnc, D., 2007. *Študentsko delo in zaposlovanje mladih*: *magistrsko delo*. Ljubljana: Univerza v Ljubljani, Fakulteta za družbene vede.

McGann, E. & Thompson, J.M., 2008. Factors related to academic success in at-risk senior nursing students. *International Journal of Nursing Education Scholarship*, 5(1), pp. 1-15. http://dx.doi.org/10.2202/1548-923X.1465 PMid:18454733

Medjo, P., 2008. *Analiza možnosti preživetja študentskih servisov v panogi posredovanja zaposlitev in dela*: *magistrsko delo.* Ljubljana: Univerza v Ljubljani, Ekonomska fakulteta, pp. 15-25.

Monahan, K.C., Lee, J.M. & Steinberg, L., 2011. Revisiting the impact of part-time work on adolescent adjustment: distinguishing between selection and socialization using propensity score matching. *Child Development*, 82(1), pp. 96-112. http://dx.doi.org/10.1111/j.1467-8624.2010.01543.x PMid:21291431

Palese, A., Achil, I., Bulfone, G., Bulfone, T., Caporale, L., Comisso, I., et al., 2012. Becoming a nurse in Italy: a multi-method study on expenditures by families and students. *Nurse Education Today*, 32(8), pp. e55-e61. http://dx.doi.org/10.1016/j.nedt.2012.03.011 PMid:22503295

Pitt, V., Powis, D., Levett-Jones, T & Hunter, S., 2012. Factors influencing nursing students' academic and clinical performance and attrition: an integrative literature review. *Nurse Education Today*, 32(8), pp. 903-913. http://dx.doi.org/10.1016/j.nedt.2012.04.011 PMid:22595612

Phillips, C., Kenny, A., Smith, C. & Esterman, A., 2012. Pre-registration paid employment choice: the views of newly qualified nurses. *Nurse Education Today*, 2011, 32(1), pp. 10-14. http://dx.doi.org/10.1016/j.nedt.2011.01.007 PMid:21310513

Rebeschi, L. & Aronson, B., 2009. Assessment of nursing student's learning outcomes and employment choice after the implementation of a senior capstone course. *Internal Journal of Nurse Education Scholarship*, 6(1), pp. 1-15. http://dx.doi.org/10.2202/1548-923X.1775 PMid:19572837

Rochford, C., Connolly, M. & Drennan, J., 2009. Paid part-time employment and academic performance of undergraduate nursing students. *Nurse Education Today,* 29(6), pp. 601-606. http://dx.doi.org/10.1016/j.nedt.2009.01.004 PMid:19246132

Salamonson, Y. & Andrew, S., 2006. Academic performance in nursing students: infuence of part-time employment, age and ethnicity. *Journal of Advanced Nursing*, 55(3), pp. 342-349. http://dx.doi.org/10.1111/j.1365-2648.2006.03863_1.x PMid:16866828

Salamonson, Y., Andrew, S. & Everett, B., 2009. Academic engagement and disengagement as a predictors of performance in pathophysiology among nursing students. *Contemporary Nurse,* 32(1-2), pp. 123-132. http://dx.doi.org/10.5172/conu.32.1-2.123 PMid:19697983

Salamonson, Y., Everett, B., Koch, J., Andrew, S. & Davidson, P.M., 2012. The impact of term-time paid work on academic performance in nursing students: a longitudinal study. *International Journal of Nursing Studies*, 49(5), pp. 579-585. http://dx.doi.org/10.1016/j.ijnurstu.2011.10.012 PMid:22098926

Statistični urad Republike Slovenije, 2012. *Stopnja registrirane brezposelnosti.* Available at: http://www.ess.gov.si/trg_dela/trg_dela_v_stevilkah/stopnja_registrirane_brezposelnosti [17. 1. 2013].

Šušteršič, J., Nastav, B. & Kosi, T., 2010. *Ekonomski vidiki študentskega dela*. Koper: Univerza na Primorskem, Fakulteta za management. Available at: http://www.sizad.si/resources/files/Ekonomski_vidiki_studentskega_dela_POROCILO.pdf [28. 8.2014].

Uredba o javnem financiranju visokošolskih zavodov in drugih zavodov, 2011. Uradni list Republike Slovenije št. 7.

Wray, N. & McCall, L., 2007. Money matters: students' perceptions of the costs associated with placements. *Medical Education*, 41(10), pp. 975-981. http://dx.doi.org/10.1111/j.1365-2923.2007.02840.x PMid:17908115

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Popravek/Errata corrige

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Uredništvo se avtorjema in bralcem opravičuje za neljubo napako.

Original scientific article/Izvirni znanstveni članek

Sociodemographic and socioeconomic inequalities in physical activity among Slovenian youth

Sociodemografske in socioekonomske neenakosti glede telesne dejavnosti med slovensko mladino

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Key words: physical activity; health; well-being; media use; socioeconomic inequalities; lifestyle

Ključne besede: gibalna aktivnost; zdravje; dobro počutje; uporaba medijev; socioekonomske neenakosti; življenjski slog

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ABSTRACT

Introduction: Frequent physical activity has previously been found associated with numerous health benefits, yet it is unequally distributed across social strata, including in Slovenia. The aim of the present study was to examine the frequency of and inequalities in physical activity among Slovenian youth.

Methods: A representative cross-sectional study of 907 men and women aged 16–27 years ($\bar{x}_{age}$ = 21.90, s = 3.25, 48.3 % women) living in Slovenia was carried out examining the determinants of physical activity (measured with a single item on the frequency of physical activity in previous 7 days).

Results: More than four out of ten young people (41.3 %) reported being vigorously physically active for at least 20 minutes daily only on two days or less in the previous week. Regression analysis indicated that eight predictor variables explained 4.2 % of the variance (*Adjusted R2* = 3.4 %) in physical activity. Male gender was the only significant predictor of more frequent physical activity (β = 0.20, p < 0.001). In addition, interaction effect was detected with gender moderating the association between age and physical activity (β = -0.10, p < 0.05).

Discussion and conclusion: Socioeconomic gradient in physical activity was not detected. Future studies should examine additional indicators of socioeconomic status and deprivation. The study results could provide a basis for programmes and interventions on physical activity that should target especially young women.

IZVLEČEK

Uvod: Raziskave kažejo, da ima redna gibalna aktivnost za zdravje številne pozitivne učinke, vendar je glede svoje pogostosti in stopnje neenakomerno porazdeljena med družbenimi sloji, kar velja tudi za Slovenijo. Namen pričujoče raziskave je bil preučiti pogostost in dejavnike gibalne aktivnosti med slovensko mladino.

Metode: Izvedena je bila presečna anketna raziskava na reprezentativnem vzorcu 907 v Sloveniji stanujočih mladih, starih 16–27 let ($\bar{x}_{starost}$ = 21,90, s = 3,25, 48,3 % žensk). Analizirani so bili dejavniki gibalne aktivnosti (pogoste gibalne aktivnosti v zadnjih sedmih dneh).

Rezultati: Več kot štirje izmed desetih mladih (41,3 %) so poročali, da so bili v preteklem tednu le v dveh dnevih ali še redkeje intenzivno gibalno aktivni vsaj 20 minut dnevno. Regresijska analiza je pokazala, da je osem prediktorjev skupaj pojasnilo 4,2 % variance gibalne aktivnosti (*prilagojena R2* = 3,4 %). Moški spol je bil edini statistično značilni napovedovalec pogostejše gibalne aktivnosti (β = 0,20, p < 0,001). Prav tako je bil zaznan interakcijski učinek spola, ki je moderiral odnos med starostjo in pogostostjo gibalne aktivnosti (β = 0,10, p < 0,05).

Diskusija in zaključek: Vpliv socioekonomskega statusa na pogostost gibalne aktivnosti ni bil zaznan. V prihodnjih raziskavah bi bilo potrebno preučiti tudi druge kazalnike socioekonomskega položaja in deprivacije. Rezultati pričujoče raziskave bi lahko predstavljali podlago za programe in ukrepe na področju gibalne aktivnosti, ki bi morali biti usmerjeni predvsem na mlade ženske.

The article analyzed quantitative data from the CEPYUS – Friedrich-Ebert-Stiftung (FES) Youth Survey, which was financed by Friedrich-Ebert-Stiftung.

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Introduction

Socioeconomic inequalities in health and mortality are well-documented (Phelan, et al., 2010; Mackenbach, 2012) and an important area in sociology of health (Nettleton, 2006). Evidence also suggests that differences in health behaviours are one of the factors contributing to health inequalities (Marmot & Wilkinson, 2005; Cohen, et al., 2006; Godley & McLaren, 2010) and among health and lifestyle behaviours, regular physical activity and physical fitness are among the most important factors associated with health, well-being and quality of life with physical inactivity increasing the risk of mortality and morbidity (e. g., the risk of obesity, some types of cancer, cardiac, vascular and pulmonary morbidities and mental/psychosocial health problems; see, among others) (Cavill, et al., 2006; Bouchard, et al., 2007; Iannotti, et al., 2009; Bouchard & Katzmarzyk, 2010; World Health Organization, 2010; Finne, et al., 2013; Rauner, et al., 2013). In a review of selected studies of physical activity, Janssen and LeBlanc (2010) found that 1) physical activity was associated with numerous health benefits; 2) the dose-response relations was detected in observational studies indicating that the more physical activity, the greater the health benefits; 3) results from experimental studies have shown that even modest amounts of physical activity can be health beneficial in high-risk youngsters. A publication of European Union on health statistics reports that there are several different aspects of physical activity beneficial for health: 1) the total amount of physical activity helps to regulate weight; 2) short, intense activity promotes fitness and influences well-being; 3) moderate exercise may help to reduce morbidity by 30–50 %; and 4) weight-bearing activity decreases bone loss and the chance of fracture (EU Commission, 2002, p. 54). In their review of the effects of physical activity on mental health, Raglin and colleagues (2007) conclude that 'there is growing evidence that the benefits of exercise can approach or equal those of psychopharmacological medication and therapy' (Raglin, et al., 2007, p. 255). Past research indicates that increasing the levels of physical activity and reducing sedentary behaviours during childhood and adolescence can play a significant role in prevention of adult morbidity e. g. adult overweight or obesity (Biddle, et al., 2010).

The frequency and inequalities in physical activity

Bouchard and colleagues (2007, p. 2) note that '... Homo sapiens won the war against physical work of all kinds but has become afflicted by diseases brought about by a physically inactive lifestyle.' Indeed, Europeans are not sufficiently physically active (EU Commission, 2002), including Slovenians. For instance, results of Slovenian Public Opinion Survey data (Kurdija, et al., 2006) indicated that between 25 % and 30 % of Slovenian adults reported being never or extremely rarely physically active. In a study of Slovenian adults CINDI (Countrywide Integrated Noncommunicable Disease Intervention) study aged 25 and older only about a fifth of respondents reached the recommended amount of recreational physical activity in 2004 and 2008, while combined physical activity recommendations were reached by almost six out of ten respondents (Djomba, 2012). Furthermore, recreational activity increased significantly from 2004 to 2008, but not combined activity (which included work-place activity).

An international study of 11-, 13-, and 15-year old adolescents HBSC (Health Behaviour in School-aged Children) from 2010 indicated that among 11-year-olds, Irish boys (43 %) and girls (31 %) reported highest physical activity rates, while Italian boys (10 %) and girls (7 %) reported the lowest. Slovenian 11-year old boys (31 %) and girls (20 %) were just above averages in HBSC study. The results of Slovenian HBSC study indicate a small decrease in the frequency of physical activity of adolescents between 2002 and 2010. In 2010 only 20.3 % of adolescents were physically active for 60 minutes a day all days of the week (Drev, 2011; 2012).

Numerous studies have also shown that individuals from higher socioeconomic groups have higher rates of physical activity, both research among adults and youth (Ball, et al., 2006; Bergman, et al., 2008; Cotter & Lachman, 2010; Munter, et al., 2012; White & McTeer, 2012; Federico, et al., 2013; Gearon, et al., 2013; Lehto, et al., 2013; Pudrovska & Anishkin, 2013; Roberts, et al., 2013) have provided similar results. The abovementioned cross-national HBSC study of adolescents (Currie, et al., 2010), for example, found that low family affluence was significantly associated with lower prevalence of physical activity in fewer than half of analyzed countries and regions, with the 'difference between those in low- and high-affluence households on averaged being less than 10 %'. Analyzing Slovenian HBSC data researchers similarly found that those adolescents whose families have higher socioeconomic status (SES) were more frequently physically active (Drev, 2011; 2012), though in the total sample of all three age categories there were significant family SES differences in physical activity levels only among boys, and not among girls (Currie, et al., 2010, p. 129). Similar results were reported in one of the latest national studies of Slovenian youth (Kirbiš, 2011a).

Besides socioeconomic inequalities in physical activity levels, two other sociodemographic variables were previously found to be associated with physical activity: age and gender. Specifically, more physically active were previously found to be younger youth (Currie, et al., 2010; Drev, 2011; 2012) and among boys and men (Katzmarzyk, 2007; Bergman, et al., 2008; Kirbiš, 2011a). Consistent with above-mentioned

studies, analyzing Slovenian CINDI survey data Djomba (2012) found that among adults over 25 years of age, men, the youngest age group of adults (25–39 year-olds) and those with higher educational levels reported most frequent recreational physical activity.

On the other hand, several research gaps in the literature can be identified. Firstly, studies on youth physical activity usually do not examine which SES variables have the strongest relative impact on physical activity. Such comparative analysis was, for example, carried out in a study of Finnish adults by Laaksonen and colleagues (2003) who found that when adjusting for educational and occupational status, income differences in many health behaviours, including physical activity, were largely removed. Nonetheless, to our knowledge there are no studies of youth comparing the relative impact of education of each parent, subjective economic status of the family and young individual's own educational level and income, and studies in general examining the impact of different SES measures are rare. An exception, for example, is the above mentioned HBSC study of adolescents (Currie, et al., 2010; Jeriček Klanšček, et al., 2011), which did examine the impact of adolescent's family SES on health and health-related behaviours with three available SES indicators: 1) by summing four items of family material possessions into a SES scale (Family Affluence Scale); 2) by a single-item of subjective financial status of adolescent's family; 3) and by parental employment status. First two SES indicators proved significant determinants of physical activity levels (Jeriček Klanšček, et al., 2011).

Secondly, the impact of SES on physical activity might differ across sociodemographic groups, especially among genders. For example, examining social influences of leisure-time physical activity in young Danish adults, Osler and colleagues (2001) found that among women those with higher educational levels were more frequently physically active (higher percentage of those reporting lower levels of leisure time physical activity among lower-educated group), while among men there were no differences across two educational groups. In addition, among women, higher parental education decreased the likelihood of frequent physical activity, while among men parental education increased the likelihood of frequent physical activity. The same pattern was found in a study of young adults by Oygard & Anderssen (1998), who reported an interaction between gender and education, with highly educated females reporting significantly higher leisure-time physical activity levels than less educated females, though the same pattern was not detected among males. Similar gender interaction has been found in a study of adolescents by Mar Bibiloni and colleagues (2012) who found that girls with lower parental educational levels reported higher frequency of sedentary behaviour (though the differences were statistically insignificant), while the same parental educational impact was not detected among boys.

Finally, previous studies have found that physical activity levels are negatively associated with more frequent sedentary behaviour and media use (Koezuka, et al., 2006; Motl, et al., 2006; Raudsepp, et al., 2008; Gebremariam, et al., 2013). In a meta-analysis of the relationships between one type of sedentary behaviour, media use, body fatness and physical activity in children and youth, Marshall and colleagues (2004) found a small but negative relationship between TV viewing and physical activity. Since both sedentary behaviour and media use are also more frequent among young people from lower SES backgrounds (Brodersen, et al., 2007; Currie, et al., 2010; Lundahl, et al., 2013; Coombs, et al., 2013), results also detected among Slovenian youth (Drev, 2011; Kirbiš & Zagorc, 2014), it is important to examine whether any potential SES differences in physical activity levels are removed when adjusting for sedentary behaviour, which was in our study measured by television and Internet use. We examined both types of sedentary behaviour since a representative study of Slovenian youth in 2013 found that the frequency of Internet use surpassed television use (Kirbiš & Zagorc, 2014).

Study aim and hypotheses

The aim of the present research was to examine the frequency of and inequalities in physical activity among Slovenian youth. Based on the reviewed literature, the following hypotheses were tested in our study: higher SES (H1), male gender (H2) and lower age (H3) have a positive impact on physical activity. Additionally, three research questions were addressed: does gender moderate the impact of other predictors on physical activity? (RQ1); which SES indicator has the strongest impact on physical activity? (RQ2); does sedentary behaviour impact physical activity? (RQ3).

Before turning to the empirical part of the study let us note two additional points. First, we use the term *inequalities* in health and health behaviours as differences between groups, most often between 'groups occupying unequal positions in the dominant social hierarchies' (Graham, 2007, p. 3) that are also regarded 'both unfair and avoidable, as they are caused by unhealthy public policies and lifestyles influenced by structural factors' (Whitehead & Dahlgren, 2006; cited in World Health Organization, 2006, p. 1).

Secondly, there are different public health guidelines on recommended amount of daily physical activity (Pate, 2007, pp. 29-30; Rowland, 2007, p. 267). One of the recommendations is that adults should accumulate 30 to 60 minutes of moderately intense physical activity (e. g., brisk walking) on most or all days of the week to help prevent these diseases (Pate, et al., 1995; cited in Janssen, 2007, p. 170). In our study we followed the guideline used in the U.S. Centers for Disease Control and Prevention's (CDC) Youth Risk Behavior Survey

(Grunbaum, et al., 2004), also employed in a study of Page and colleagues (2009). Their item measured the number of days respondents participated in the past week in vigorous physical activity (that made them sweat and breathe hard for at least 20 minutes) (Bergman, et al., 2008).

Methods

Description of the instrument

Self-reported physical activity

The single item measuring physical activity in our study was very similar to one of the items in the short form of International physical activity questionnaire (IPAQ) (Ekelund, et al., 2006; Macfarlane, et al., 2007; Poole, et al., 2011; Tran, et al., 2013). IPAQ is a measure of health-related physical activity and has been cross- culturally validated for use on young and middle aged adults aged 15 to 69 years (Craig, et al., 2003). Our item of physical activity was the following: 'Think about the last 7 day. During these last 7 days, on how many days did you do vigorous physical activities, like heavy lifting, bicycling, brisk walking or running, etc., hard for at least 20 minutes? Think only about those physical activities that you did for at least 10 minutes at a time' (1 = 0 days, 8 = 7 days). Single-item indicators of physical activity have previously been found to have sufficient levels of reliability and validity (Milton, et al., 2011; Gill, et al., 2012; Hamilton, et al., 2012; Wanner, et al., 2013).

Socioeconomic status

Socioeconomic status is a composite measure that consists of different indicators of economic status (e. g., income), social status (e. g., education) and work status (e. g., occupation) (Dutton & Levine, 1989, p. 30; cited in Adler, et al., 1994, p. 15). In other words, education, income and occupation are regarded as key indicators of SES (Graham, 2009, p. 6). In our study we measured SES with two out of the three commonly used indicators of SES: educational level (father's and mother's education) and respondent's income. Included in the measure of SES was also an indicator of perceived family economic status.

Education

We measured father's and mother's education with three identical items on a 5-point scale: 'What is the highest achieved level of your father's (your mother) education?' (1 = uncompleted primary school, 5 = completed master or doctorate degree). Both items were recoded to a 3-point scale (1 = primary level or less, 2 = secondary level, 3 = tertiary level).

Income

Respondent's average monthly income was assessed with the following question: 'Rate, please, what is your average monthly income? Sum all forms of income (in addition to wages, for example, this included any compensation, grant, allowance, interests, rental income, disability benefits, etc.)'. We recoded income values in into eleven categories (1 = 50 € or less, 11 = more than 1000 €).

Self-perceived family material status

Respondents also assessed their family's relative material (economic) status in comparison to perceived Slovenian average with the following question: 'How do you rate the material situation of your family according to the Slovenian average?' Answers originally coded on a 10-point scale (1 = highly below average, 10 = highly above average) were subsequently recoded to a 3-point scale of family's relative material status (1 = (highly) below average, 2 = average, 3 (highly) above average).

Sedentary behaviour

Sedentary behaviour was measured with two media use items. Internet use was measured with the following 'What is the average amount of time you spend daily using the Internet? (Including Internet use via smart phone and/or tablet)?'; and television use was measured with the following item: 'What is the average amount of time you spend daily watching the television?'. Respondents have provided answers in 'hours' and the original values were for the purpose of regression analyses recoded in the following way: Internet use (1 = up to an hour, 7 = more than six hours daily) and television use (1 = up to an hour, 4 = more than three hours).

Sociodemographic predictors

Two sociodemographic variables included in our analysis were age (measured as the year of birth and subsequently recoded into age in years and then into three age groups: 16–19 years, 20–23 years and 24–27 years) and gender (female = 1, male = 2).

Sample description

CEPYUS (Center for the Study of post-Yugoslav Societies) and FES (Friedrich Ebert Stiftung, Zagreb) conducted a FES Slovenian Youth 2013 Study, which consisted of a stratified quota sample. The target population were youth residing in the Republic of Slovenia who were on May 28th 2013 aged between 16 and 27 years. According to the Statistical Office of the republic of Slovenia there were N = 282,194

Slovenian citizens in 16-27 age group in 2012, n = 900 respondents has been chosen by study authors as sufficiently reliable in order to draw inferences to the whole population. The standard sampling error, assuming a 95 percent level of reliability, accounts for +/- 3.3 percentage points (Flere & Divjak, 2014). The sample consisted of 907 respondents ($\bar{x}_{age}$ = 21.90, s = 3.25, 48.3 % women).

Description of research process and data collection

The survey was conducted between May 29th and July 20th 2013 in the form of a face-to-face interview, as a rule within households. Before the fieldwork was carried out all the interviewers took part in one of the three introductory seminars, where they were given detailed instructions on interviewing and the on the selection of proper respondents. Interviewers were also instructed on quota requirements and to interview only one person per household. In case the potential respondent had refused to participate in our survey, the interviewer had to write down the reasons for his/her non-response (Flere & Divjak, 2014).

Survey questionnaires consisted of two parts: oral and written part. The oral part of the questionnaire was conducted within face-to-face interviews with interviewers reading the questions aloud to interviewees and with filling out survey responses, which they received from the respondents. Upon completion of the oral part of the questionnaire the interviewer handed the respondent the written questionnaire and asked him/her to fill out the written questionnaire himself/herself. Written part of the questionnaire consisted of questions that were more personal and intimate in nature (Flere & Divjak, 2014).

After finishing with the fieldwork the interviewer returned the filled-in questionnaires and the validity of his/her questionnaires was checked with control phone calls to the respondents in order to prevent fraud. Respondents were asked by interviewers to provide their personal and contact information only for the purpose of checking the quality of the fieldwork. In order to ensure anonymity and confidentiality of collected information, all necessary precautions were taken to prevent the potential abuse of personal data. Data was treated separately from respondents' answers to survey questions to prevent the possibility of linking the given answers with particular respondents. During the fieldwork, 1,163 potential respondents were invited to participate in the survey and among them, 907 valid interviews were completed and incorporated into the data. The overall response rate was therefore 78.0 percent (Flere & Divjak, 2014).

Data were analysed using Statistical Package for the Social Sciences Version 19.0 (SPSS). First, descriptive analyses for the outcome variable were completed by total sample, by gender and by age groups. Next, standard multiple regression analysis was performed (Tabachnick & Fidell, 2012) and the model used to examine the effect of predictor variables on the frequency of physical activity included: two sociodemographic and five socioeconomic variables and also two sedentary behaviour items (television and Internet use).

Results

Table 1 presents descriptive statistics for the frequency of physical activity of Slovenian youth by total sample, by gender and by age groups. Almost 12 % of respondents reported not doing 20 minutes or more of vigorous activity on any day in previous seven days; a similar percentage has exercised one day in the previous week and 18 % have exercised on two days in the past seven days. As already mentioned, recommendations for (aerobic) physical activity differ. Some call for adults to engage in at least 30 minutes of moderate-intensity activity, 5 days per week, or 20 minutes of vigorous-intensity activity, 3 days per week (US Department of Health and Human Services; cited in, Anon., 2008; Bergman, et al., 2008; Child Trends, 2012, p. 3). If we use the recommendation of 3 days or more of at least 20 minutes of physically activity, then the analysis indicates that 58.7 % of Slovenian youth exercise in according to such health guideline. On the other hand, if we employ the recommendations that youth should be physical active all days of the week, only 12.3 % of Slovenian youth are sufficiently physically active. Lastly, using a 3 or more days a week of regular physical activity as a cut-off point, we see 58.7 % of respondents are active within that recommendation, while more than four out of ten young people in Slovenia (41.3 %) are physically active only two days per week or less.

Looking at the gender differences, columns 2 and 3 in Table 1 indicate that there are a higher proportion of men being physical active all and most days of the week, while the relative majority of women reported being physical active only two days in previous week, indicating substantial gender differences. An independent-samples t-test was conducted to compare the frequency of physical activity for males and females. There were significant differences for males ($\bar{x}$ = 4.66, s = 2.24) and females ($\bar{x}$ = 3.78, s = 1.97, t (901.96) = 6.32, $p < 0.001$, two-tailed). The magnitude of the differences in the means (mean difference = 0.88) was moderate (eta squared = 0.04). Similarly, columns 4, 5 and 6 by age groups indicate that younger age group reported being the most frequently physically active while the oldest age group reported being the least active, although the analysis of mean comparisons (ANOVA; not shown) indicated no significant age group mean differences ($p > 0.05$). In sum, these descriptive statistics by total sample, gender and age groups indicate relatively low physical activity levels of Slovenian youth, especially women and older youth,

Table 1: *Descriptive statistics for the frequency of physical activity among Slovenian youth in 2013; total sample, by gender and by age groups (Source: CEPYUS-FES Slovenian 2013 Youth Study (2013))*
Tabela1: *Opisna statistika pogostosti gibalne aktivnosti med slovensko mladino v letu 2013; celotni vzorec, po spolu in po starostnih skupinah (Vir: CEPYUS-FES Slovenian 2013 Youth Study (2013))*

Frequency of physical activity (per week)/ Pogostost gibale aktivnosti (na teden)	**Total sample *n* = 907**	**Men *n* = 469**	**Women *n* = 438**	**16–19 years *n* = 258**	**20–23 years *n* = 295**	**24–27 years *n* = 354**
0 days	11.9 %	9.9 %	13.9 %	11.9 %	8.0 %	15.0 %
1 day	11.6 %	9.5 %	13.9 %	10.0 %	11.1 %	13.2 %
2 days	17.8 %	13.8 %	22.0 %	16.7 %	21.4 %	15.6 %
3 days	16.9 %	16.2 %	17.7 %	17.0 %	19.5 %	14.7 %
4 days	12.7 %	12.8 %	12.6 %	9.8 %	12.5 %	15.1 %
5 days	12.2 %	14.5 %	9.7 %	13.3 %	11.9 %	11.6 %
6 days	4.6 %	5.7 %	3.4 %	4.5 %	4.8 %	4.5 %
7 days	12.3 %	17.5 %	6.8 %	16.7 %	10.9 %	10.3 %

Legend/Legenda: n - number/število; % - percentage/odstotek

Table 2: *Multiple regression model estimating effects of sociodemographic, socioeconomic and sedentary behaviour variables on the frequency of physical activity among Slovenian youth (Source: CEPYUS-FES Slovenian 2013 Youth Study (2013))*
Tabela 2: *Multipli regresijski model učinka sociodemografskih in socioekonomskih spremenljivk in sedečega vedenja na pogostost gibalne aktivnosti med slovensko mladino (Vir: CEPYUS-FES Slovenian 2013 Youth Study (2013))*

Total	**B**	**SE B**	***β***
Constant	4.08	0.70	
Gender	0.76	0.14	0.19**
Age group	-0.13	0.10	-0.05
Father's education	0.13	0.14	0.04
Mother's education	0.10	0.13	0.03
Perceived family material status	-0.17	0.10	-0.06
Respondent's monthly income	-0.02	0.03	-0.02
Sedentary behaviour (Internet use)	-0.00	0.03	0.00
Sedentary behaviour (Television use)	-0.03	0.07	-0.02
Gender * Age group	-0.50	0.20	-0.10*
R^2 / Adj. R^2 = .042 / .034***			

*Legend/Legenda: * – statistical significance at 0.05 level; statistična značilnost na ravni 0,05; ** – statistical significance at 0.01 level; statistična značilnost na ravni 0,01; *** – statistical significance at 0.001 level; statistična značilnost na ravni 0,001; B = unstandardized coefficient/nestandardizirani koeficient; SE B - standard error/standardna napaka; β - standardized (beta) coefficient/standardizirani (beta) koeficient; R^2 - variance explained/pojasnjena varianca;* Adj. *R^2 - adjusted variance explained/prilagojena pojasnjena varianca; * - interaction effect/interakcijski učinek*

Note: The inclusion of interaction effect (gender x age group) increased explained variance to 5.8 % *(Adjusted R^2 = 4.0 %).*

For the purpose of regression analysis the measure of physical activity was recoded from original eight categories into seven by combining answers '6 days' and '7 days' into a single value (physically active 6 to 7 days in past 7 days).

Opomba: Vključitev interakcijskega učinka (spol x starost) je povečala pojasnjeno varianco na 5,8 % (prilagojena R^2 = 4,0 %).

Za namene regresijske analize smo indikator gibalne aktivnosti rekodirali iz originalnega osemstopenjskega kazalnika v sedemstopenjskega, v skupno kategorijo smo združili kategoriji '6 dni' in '7 dni' (v preteklih 7 dnevih gibalno aktiven 6 do 7 dni).

which presents a pressing public health issue that needs to be addressed.

Table 2 presents the results of standard multiple regression analysis by total sample indicating the associations between each predictor variable and physical activity after controlling for other predictor variables entered into the model. All predictors explained combined 4.2 % of the variance (*Adjusted* R^2 = 3.4 %) in frequency of physical activity (F (7, 786) = 4.96, $p < 0.001$). The only significant beta value was for male gender ($ß = 0.20$, $p < 0.001$), indicating that men are significantly more often physically active than women (giving confirmation to H2), while none of the SES predictor variables proved to be significant (rejecting H1). It seems then that among post-adolescent Slovenian youth neither personal nor family socioeconomic status impacts the frequency of physical activity. In addition, age groups were also not a significant predictor of physical activity, indicating a rejection of H3.

Addressing our three research questions, we found that sedentary behaviour was not associated with physical activity (RQ3), while insignificance of all examined SES indicators indicated that neither of them impacted physical activity (RQ2). Finally, since gender was found to be the only significant predictor of physical activity, we also tested for the possibility of interaction effect with gender moderating the impact of remaining variables on physical activity (seven interactions were entered into regression analysis). The results have shown one significant interaction effect, with gender moderating the impact of age on physical activity indicating that among young men physical activity decreases with age while among women it remains relatively similar across three age groups, which provided us with an answer to our RQ1. The inclusion of interaction effect increased combined explained variance to 5.8 % of the (*Adjusted* R^2 = 4.0 %). None of the remaining interactions of gender reached significance (not shown in Table 2).

Discussion

The aim of the present study was to examine the frequency and determinants of physical activity among Slovenian youth. Previous studies identified four major determinants of physical activity levels of youth and adult population in industrialized countries, with male gender (Katzmarzyk, 2007; Bergman, et al., 2008; Kirbiš, 2011a), lower age (Currie, et al., 2010; Drev, 2011; 2012; Kirbiš, 2011a), higher family and personal SES (Ball, et al., 2006; Kirbiš, 2011a; White & McTeer, 2012) and lower frequency of sedentary behaviours and media use (Marshall, et al., 2004; Koezuka, et al., 2006; Motl, et al., 2006; Raudsepp, et al., 2008; Gebremariam, et al., 2013) being associated with higher physical activity.

Our results corroborate only some of the findings in previous research. Age, for example, did not prove to be a significant predictor of physical activity at the total sample level of Slovenian youth, but it did among males. One reason could be that age was examined as an ordinal variable (three age groups) and not at the interval level, which may have ameliorated out some of the age differences among women and consequently in total sample. Nonetheless, our results indicate that men's physical activity decreases with age, which could be related to several factors, for example with entering the labour market, family building, partnerships, etc. Future studies should examine to what extent employment status and other factors contribute to low physical activity levels among older young males.

Results thus indicated that gender acts as a moderator of the relationship between age and physical activity. With gender moderating this relationship, analysis indicated that older young men (although less physically active than younger men) are more physically active than either age category of women indicating that women are less often physically active than men, as predicted and as already detected in previous studies of Slovenian youth. Lower physical activity among women could be one of the factors contributing to their lower levels of subjective heath status since physical inactivity is one of the few risk behaviours that is more frequent among women.

Another surprising finding is that none of the five SES variables were significant predictors of physical activity. This is in contrast with studies of adolescents and youth not only in other countries (Currie, et al., 2010; White & McTeer, 2012), but also in Slovenia (Kirbiš, 2011a; Drev, 2011; 2012), including with studies of Slovenian adult population (Buzeti, et al., 2011, p. 37; Djomba, 2012). Several explanations can be proposed. Firstly, our results could have ensued due to the indicator of physical activity we used in our study. Although similar single item indicators of physical activity have previously been rigorously tested for reliability and validity (Milton, et al., 2011; Gill, et al., 2012; Hamilton, et al., 2012; Wanner, et al., 2013), it may be that our respondents answered the question on physical activity with specific context of physical activity in mind; for example, leisure time physical activity. In fact, in their systematic review of the literature, Beenackers and colleagues (2012) analyzed different types of physical activity (e. g., total, leisure-time including sport, occupational, active transport) and found that in majority of analyzed studies leisure time physical activity was more frequent among those from high SES, occupational physical activity was more frequent among those from lower SES, while total physical activity and active transport physical activity did not show a consistent SES pattern (40 % and 38 % positive associations respectively). We tested the possibility that our physical activity item was understood mainly as leisure time physical activity by examining the correlation of our item with an item on frequency of sport activity (1 = never, 2 = sometimes, 3 = often) and found a strong association, yet both items still only had less than a third of the shared variance indicating that the item on physical activity measures activities other than leisure time sports activities. This gives additional confirmation to the validity of our physical activity item on the one hand, and on the other also indicates that our item most likely measured total (or 'daily') physical activity (Beenackers, et al., 2012).

Despite the surprising finding of absence of socioeconomic inequalities in physical activity, a similar pattern was observed in the most recent studies of Slovenian youth, which also found that the same five SES variables that were examined in our study had a relatively small predictive power in explaining differences in subjective health of young people (Kirbiš, 2014; Tavčar Krajnc & Kirbiš, 2014). Following West's (1997) explanation, Kirbiš & Tement (2014) argue that 'equalisation' process might take place in the period of post-adolescence and young

adulthood in Slovenia, when the impact of family characteristics on young person's life in general, and health in particular, decreases, while the role of school environment, peers and youth cultures increases. Such process of equalisation might decrease SES group differences in health in the period of youth and it might be that such process also takes place with regard to health-related behaviours, such as physical activity. For example, in a study of Canadian children and adolescents, White & McTeer (2012) found that more frequent sport participation was associated with higher family SES among 6–9 year-olds, but 'not among' for 10–15 year-olds, which according to the authors, 'might be indicative that opportunities for involvement become more equitable as we move from childhood to youth' (White & McTeer, 2012, p. 204). Future studies should test this hypothesis and 1) examine whether socioeconomic inequalities in physical activity among Slovenian public are smaller in the period of post-adolescence and young adulthood than in childhood and adulthood; 2) what age period specifically equalisation, if at all, takes place and what are its underlying mechanisms.

Unlike some previous studies (Oygard & Anderssen, 1998; Osler, et al., 2001) we did not detect different impact of SES on physical activity levels in either gender, since among both men and women no socioeconomic inequalities in physical activity were found. Another surprising finding in our study was that more frequent sedentary behaviour (as measured by Internet use and television use) was not associated with the frequency of physical activity, although previous studies have confirmed such link (Marshall, et al., 2004; Gebremariam, et al., 2013). It seems then that despite the increasing frequency of Internet use among young people in Slovenia in the last four years (Kirbiš & Zagorc, 2014), neither of the two forms of sedentary behaviour is a factor contributing to lower physical activity. In other words, since physical activity levels among Slovenian post-adolescent youth and young adults were previously found to be increasing (Kirbiš, 2011a), while among adolescents they were found to be decreasing (Drev, 2012), and since sedentary behaviour in the form of media use was found to be increasing among both adolescents and young adults (Kirbiš, 2011b; Drev, 2012; Kirbiš & Zagorc, 2014), this presents researchers with a paradox that needs to be addressed in future studies. In this regard Marshall & Welk (2008, p. 12) argue that physical activity and sedentary behaviour are 'not two sides of the same coin' and that 'high levels of physical activity and sedentary behaviour are able to coexist with a lifestyle of a young person'.

Our representative study of Slovenian youth also has several additional shortcomings that need to be addressed. First, we investigated self-reported physical activity levels with a single item, while future studies of Slovenian youth should employ more nuanced indicators of physical activity. Secondly, although the strength of our study is that we examined the impact of five different SES indicators, we did not analyze the impact of other potentially relevant SES indicators (e. g., housing conditions, employment status, objective and subjective material deprivation, personal/family material possessions, etc.). Thirdly, previous studies have found that many other social factors impact physical activity levels. For example, numerous other relevant concepts were previously also found to be associated with physical activity (Burton, et al., 2003), including the number of friends' young people have (Drev, 2011; 2012). Fourthly, our analysis focused on the physical activity at the individual level, while studies have shown that macro- and mezo-characteristics (e. g., at country and neighbourhood level) also play an important role in physical activity (Adams, et al., 2013). Fifthly, post-adolescent youth are not a homogenous group and differ, among others, with regard to their predominant activity (high-school students, tertiary students, employed and unemployed youth, etc.).

Despite caveats our study has several important practical implications: firstly, programmes and interventions on physical activity should be designed targeting especially young women. Slovenia has relatively low income inequality (Eurostat, 2013), low health inequalities among post-adolescent youth (Kirbiš, 2014; Tavčar Krajnc & Kirbiš, 2014) and, as our study indicates, low socioeconomic inequalities in physical activity among post-adolescent youth. Slovenia's relatively low inequalities in post-adolescent youth health, together with its policies, might present a model for other countries that are witnessing high inequalities in health among youth. At the same time, Slovenia policy makers should put effort to reduce inequalities in health among remaining age groups (children, adults and the elderly) and scholars should further examine different socioeconomic measures and their impact on physical activity including among youth. Finally, multilevel interventions based on social-ecological models are becoming more prominent lately; by not only targeting individuals, but also social environments, physical environments, and policies and such interventions are also needed in Slovenia.

Conclusion

Our study aimed at examining the frequency of and identifying determinants of physical activity and therefore to help to pinpoint those segments of Slovenian youth that are at a particular risk of low levels of physical activity. We found that more than four out of ten young people in Slovenia (41.3 %) are insufficiently physically active – only two days per week or less. Examined measures of SES, on the other hand, did not indicate the existence of significant socioeconomic inequalities in physical activity. Future studies need to

examine whether the SES variables examined in our study have a different impact on the physical activity levels among youth groups with different predominant activity (high-school students, tertiary students, employed and unemployed youth, etc.) and to examine other indicators of material and relative deprivation. We also found that young women across all three age groups are at higher risk of infrequent physical activity than young men. Interventions should therefore particularly focus on young women, especially by eliminating socio-structural constraints that negatively impact women's physical activity levels. Despite higher levels of physical activity among young men compared to young women, older age group of young men also needs to be addressed in the programmes and future studies, since a large decrease in physical activity occurs among men at the turn from adolescence to young adulthood. In sum, in Slovenia and Europe interventions based on analyses relating to health and health behaviours are desired in order to further examine the impact of SES and other determinants on health and health behaviours, including physical activity, with a goal of improving health of youth and adults. It is important to set up mechanisms at different levels of society to further monitor and improve health and well-being of Slovenian population, but also aiming to reduce inequalities across social structure, including between genders.

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Literature

Adams, M.A., Ding, D., Sallis, J.F., Bowles, H.R., Ainsworth, B.E., Bergman, P., et al., 2013. Patterns of neighborhood environment attributes related to physical activity across 11 countries: a latent class analysis. *International Journal of Behavioral Nutrition and Physical Activity*, 10, p. 34.
http://dx.doi.org/10.1186/1479-5868-10-34
PMid: 23497187; PMCid:PMC3615945

Adler, N.E., Boyce, T., Chesney, M.A., Cohen, S., Folkman, S., Kahn, R.L., et al., 1994. Socioeconomic status and health: the challenge of the gradient. *American Psychologist*, 49(1), pp. 15–24.
PMid:8122813

Anon., 2008. Prevalence of self-reported physically active adults --- United States, 2007. *Morbidity and Mortality Weekly Report*, 57(48), pp. 1297–1300.
PMid:19052527

Ball, K., Salmon, J., Giles-Corti, B. & Crawford, D., 2006. How can socio-economic differences in physical activity among women be explained? A qualitative study. *Women Health,* 43(1), pp. 93-113.
http://dx.doi.org/10.1300/J013v43n01_06
PMid:17050487

Beenackers, M.A., Kamphuis, C.B., Giskes, K., Brug, J., Kunst, A.E., Burdorf, A., et al., 2012. Socioeconomic inequalities in occupational, leisure-time, and transport related physical activity among European adults: a systematic review. *International Journal of Behavioral Nutrition and Physical Activity*, 9, p. 116.
http://dx.doi.org/10.1186/1479-5868-9-116
PMid:22992350; PMCid:PMC3491027

Bergman, P., Grjibovski, A. M., Hagströmer, M., Bauman, A. & Sjöström, M, 2008. Adherence to physical activity recommendations and the influence of socio-demographic correlates – a population-based cross-sectional study. *BMC Public Health,* 8, p. 367.
http://dx.doi.org/10.1186/1471-2458-8-367
PMid:18945354; PMCid:PMC2576236

Biddle, S., Cavill, N., Ekelund, U., Gorely, T., Griffiths, M.D. & Jago, R., 2010. *Sedentary behaviour and obesity: review of the current scientific evidence*. London: Department of Health, Department for Children, Schools and Families, pp. 3–4. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/213745/dh_128225.pdf [31. 5. 2014].

Bouchard, C. & Katzmarzyk, P.T., 2010. *Physical activity and obesity*. Baton Rouge, Louisiana: Human Kinetics, pp. 107-110.

Bouchard, C., Blair, S.N. & Haskell, W. eds., 2007. *Physical activity and health*. 2nd ed. Champaign, IL.: Human Kinetics, pp. 143-190.

Brodersen, N.H., Steptoe, A., Boniface, D.R. & Wardle, J., 2007. Trends in physical activity and sedentary behaviour in adolescence: ethnic and socioeconomic differences. *British Journal of Sports Medicine*, 41(3), pp. 140–144.
http://dx.doi.org/10.1136/bjsm.2006.031138
PMid:17178773 PMCid:PMC2465219

Burton, N.W., Turrell, G. & Oldenburg, B., 2003. Participation in recreational physical activity: why do socioeconomic groups differ? *Health Education & Behavior*, 30(2), pp. 225–244.
http://dx.doi.org/10.1177/1090198102251036
PMid:12693525

Buzeti, T., Djomba, J.K., Gabrijelčič Blenkuš, M., Ivanuša, M., Jeriček Klanšček, H., Kelšin, N., et al., 2011. *Neenakosti v zdravju v Sloveniji*. Ljubljana: Inštitut za varovanje zdravja. Available at: http://czr.si/files/neenakosti_v_zdravju_v_sloveniji_615.pdf [14. 2. 2014].

Cavill, N., Kahlmeier, S., Racioppi, F. eds., 2006. *Physical activity and health in Europe: evidence for action*. Copenhagen, Denmark: WHO Regional Office for Europe, pp. 5-7.

CEPYUS-FES Slovenian 2013 Youth Study, 2013. Flere, S., Klanjšek, R., Lavrič, M., Kirbiš, A., Tavčar Kranjc, M., Divjak, et al., *Slovenska Mladina 2013: življenje v času deziluzij, tveganja in prekarnosti* [data file]. Slovenija, Maribor: Filozofska fakulteta, Univerza v Mariboru [production], 2013. Hrvaška, Zagreb: Friedrich-Ebert-Stiftung Kroatien [production], 2013. Slovenija, Ljubljana: Univerza v Ljubljani, Arhiv družboslovnih podatkov [distribution], 2014.

Child Trends., 2012. *Vigorous physical activity by youth*. Available at: http://www.childtrends.org/wp-content/uploads/2012/10/16_Vigorous_Physical_Activity_Youth.pdf [14. 2. 2014].

Cohen, S., Doyle W. J. & Baum, A., 2006. Socioeconomic status is associated with stress hormones. *Psychosomatic Medicine*, 68(3), pp. 414–420.
http://dx.doi.org/10.1097/01.psy.0000221236.37158.b9
PMid:16738073

Cotter, K.A. & Lachman, M.E., 2010. No strain, no gain: psychosocial predictors of physical activity across the adult lifespan. *Journal of Physical Activity & Health*, 7(5), pp. 584–594.
PMid:20864753; PMCid:PMC2972196

Coombs, N., Shelton, N., Rowlands, A. & Stamatakis, E. 2013. Children's and adolescents' sedentary behaviour in relation to socioeconomic position. *Journal of Epidemiology and Community Health*, 67, pp. 868–874.
http://dx.doi.org/10.1136/jech-2013-202609

Craig, C.L., Marshall, A.L., Sjöström, M., Bauman, A.E., Booth, M.L., Ainsworth, B.E., et al. 2003. International physical activity questionnaire: 12-country reliability and validity. *Medicine and Science in Sports and Exercise*, 35(8), pp. 1381–1395.
http://dx.doi.org/10.1249/01.MSS.0000078924.61453.FB
PMid:12900694

Currie, C., Zanotti, C., Morgan, A., Currie, D., de Looze, M., Roberts, C., et al. eds. 2010. *Social determinants of health and well-being among young people. Health behaviour in school-aged children (HBSC) study: international report from the 2009/2010 survey*. Copenhagen: WHO Regional Office for Europe, 2012. Available at: http://www.euro.who.int/__data/assets/pdf_file/0003/163857/Social-determinants-of-health-and-well-being-among-young-people.pdf [14. 2. 2014].

Djomba, J.K., 2012. Telesna dejavnost. In: Maučec Zakotnik, J., et al. eds. *Zdravje in vedenjski slog prebivalcev Slovenije. Trendi v raziskavah CINDI 2001-2004-2008*. Ljubljana: Inštitut za varovanje zdravja Republike Slovenije, pp. 51-69.

Drev, A., 2011. Telesna dejavnost in sedeča vedenja. In: Jeriček Klanšček, H., et al. eds. *Neenakosti v zdravju in z zdravjem povezanih vedenjih slovenskih mladostnikov*. Ljubljana: Inštitut za varovanje zdravja v Sloveniji, pp. 174-189.

Drev, A., 2012. Trendi v telesni dejavnosti in gledanju televizije. In: Jeriček Klanšček, H., et al. eds. *Spremembe v vedenjih, povezanih z zdravjem mladostnikov v Sloveniji v obdobju 2002-2010.* Ljubljana: Inštitut za varovanje zdravja v Sloveniji, pp. 143–156.

Ekelund, U., Sepp, H., Brage, S., Becker, W., Jakes, R., Hennings, M., et al., 2006. Criterion-related validity of the last 7-day, short form of the international physical activity questionnaire in Swedish adults. *Public Health Nutrition*, 9(2), pp. 258-265.
http://dx.doi.org/10.1079/PHN2005840
PMid:16571181

EU Commission, 2002. *Health statistics - key data on health 2002 - data 1970-2001*. Luxembourg: Office for Official Publications of the European Communities, p. 54.

Eurostat, 2013. *Various databases.* Available from:
http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database [14. 2. 2014].

Federico, B., Falese, L., Marandola, D. & Capelli, G., 2013. Socioeconomic differences in sport and physical activity among Italian adults. *Journal of Sports Sciences*, 31(4), pp. 451-458.
http://dx.doi.org/10.1080/02640414.2012.736630
PMid:23106254

Finne, E., Bucksch, J., Lampert, T. & Kolip, P., 2013. Physical activity and screen-based media use: cross-sectional associations with health-related quality of life and the role of body satisfaction in a representative sample of German adolescents. *Health Psychology and Behavioral Medicine*, 1(1), pp. 15–30.
http://dx.doi.org/10.1080/21642850.2013.809313
PMid:25264498; PMCid:PMC4164240

Flere, S. & Divjak, M., 2014. The study and its operationalization. In: Flere, S. & Klanjšek, R. eds. *Slovenian youth: living in times of disillusionment, risk and precarity: First CEPYUS – Friedrich-Ebert-Stiftung (FES) Youth Survey: research report*. Maribor: Faculty of Arts & Friedrich-Ebert-Stiftung (FES), pp. 21–30.

Gearon, E., Backholer, K., Hodge, A. & Peeters, A., 2013. The mediating role of dietary factors and leisure time physical activity on socioeconomic inequalities in body mass index among Australian adults. *BMC Public Health,* 13, p. 1214.
http://dx.doi.org/10.1186/1471-2458-13-1214
PMid:24359490; PMCID:PMC3912343

Gebremariam, M.K., Bergh, I.H., Andersen, L.A., Ommundsen, I., Totland, T.H., Bjelland, M., et al., 2013. Are screen-based sedentary behaviors longitudinally associated with dietary behaviors and leisure-time physical activity in the transition into adolescence? *International Journal of Behavioral Nutrition and Physical Activity*, 10, p. 9.
http://dx.doi.org/10.1186/1479-5868-10-9
PMid:23351357; PMCid:PMC3560151

Gill, D.P., Jones, G.R., Zou, G. & Speechley, M., 2012. Using a single question to assess physical activity in older adults: a reliability and validity study. *BMC Medical Research Methodology*, 12, p. 20-30.
http://dx.doi.org/10.1186/1471-2288-12-20
PMid:22373159; PMCid:PMC3313867

Godley, J. & McLaren, L., 2010. Socioeconomic status and body mass index in Canada: exploring measures and mechanisms. *Canadian Review of Sociology*, 47(4), pp. 381–403.
http://dx.doi.org/10.1111/j.1755-618X.2010.01244.x
PMid:21553634

Graham, H., 2007. *Unequal lives: health and socio-economic inequalities*. Berkshire: Open University Press, McGraw-Hill, p. 3.

Graham, H., 2009. *Understanding health inequalities*. 2nd ed. Berkshire: Open University Press, McGraw-Hill, p. 6.

Grunbaum, J.A., Kann, L., Kinchen, S., Ross, J., Hawkins, J. & Lowry, R., 2004. Youth risk behavior surveillance --- United States, 2003. *Morbidity and Mortality Weekly Report*, 53(SS02), pp. 1–96. Avilable at:
http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5302a1.htm
[2. 12. 2014]

Hamilton, K., White, K.M. & Cuddihy, T., 2012. Using a single-item physical activity measure to describe and validate parents' physical activity patterns. *Research Quarterly for Exercise and Sport,* 83(2), pp. 340-345.
http://dx.doi.org/10.1080/02701367.2012.10599865
PMid:22808720

Iannotti, R.J., Janssen, I., Haug, E., Kololo, H., Annaheim, B. & Borraccino, A., 2009. Interrelationships of adolescent physical activity, screen-based sedentary behaviour, and social and psychological health. *International Journal of Public Health*, 54(Suppl. 2), pp. 191–198.
http://dx.doi.org/10.1007/s00038-009-5410-z
PMid:19639256; PMCid:PMC2732761

Janssen, I., 2007. Physical activity, fitness, and cardiac, vascular, and pulmonary morbidities. In: Bouchard, C., Blair, S.N. & Haskell, W. eds. *Physical activity and health*. 2nd ed. Champaign, IL.: Human Kinetics, pp. 161–172.

Janssen, I. & LeBlanc, A.G., 2010. Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. *International Journal of Behavioral Nutrition and Physical Activity*, 7, p. 40.
http://dx.doi.org/10.1186/1479-5868-7-40
PMid:20459784; PMCid:PMC2885312

Jeriček Klanšček, H. et al. eds., 2011. *Neenakosti v zdravju in z zdravjem povezanih vedenjih slovenskih mladostnikov*. Ljubljana: Inštitut za varovanje zdravja v Sloveniji.

Katzmarzyk, P.T., 2007. Physical activity and fitness with age among sex and ethnic groups. In: Bouchard, C., Blair, S.N. & Haskell, W. eds. *Physical activity and health*. 2nd ed. Champaign, IL.: Human Kinetics, pp. 37-47.

Kirbiš, A., 2011a. Creativity, culture and leisure. In: Lavrič, M. ed. *Youth 2010: the social profile of young people in Slovenia*. Ljubljana: Ministry of Education and Sports, Office for Youth; Maribor: Aristej, pp. 261–292.

Kirbiš, A, 2011b. The virtualisation of everyday life. In: Lavrič, M. ed. *Youth 2010: the social profile of young people in Slovenia*. Ljubljana: Ministry of Education and Sports, Office for Youth; Maribor: Aristej, pp. 293-320.

Kirbiš, A., 2014. Health, health risk behaviors and lifestyle. In: Flere S. & Klanjšek, R. eds. *Slovenian YOUTH 2013: living in times of disillusionment, risk and precarity. First CEPYUS – Friedrich-Ebert-Stiftung Youth Survey*. Zagreb: FES; Maribor: Cepyus, pp. 139-161.

Kirbiš, A. & Tement, S., 2014. Differences in perceived stress among Slovenian youth: an analysis of sociodemographic and socioeconomic predictors in the 2010 and 2013. In: Mulej, M., Hrast, A. & Kojc, S. eds. *Health - personal and/or social responsibility?: conference proceedings* 9th IRDO International Conference Social Responsibility and Current Challenges 2014, Maribor, 6th-7th March 2014, [CD-ROM]. Maribor: Inštitut za razvoj družbene odgovornosti (IRDO), pp. 1-11.

Kirbiš, A. & Zagorc, B., 2014. Media use. In: Flere S. & Klanjšek, R. eds. *Slovenian YOUTH 2013: living in times of disillusionment, risk and precarity. First CEPYUS – Friedrich-Ebert-Stiftung Youth Survey*. Zagreb: FES; Maribor: Cepyus, pp. 107-138.

Koezuka, N., Koo, M., Allison, K.R., Adlaf, E.M., Dwyer, J.J., Faulkner, G., et al., 2006. The relationship between sedentary activities and physical inactivity among adolescents: results from the Canadian Community Health Survey. *Journal of Adolescent Health*, 39(4), pp. 515–522.
http://dx.doi.org/10.1016/j.jadohealth.2006.02.005
PMid:16982386

Kurdija, S., Malnar, B., Hafner Fink, M., Uhan, S. & Štebe, J., 2006. *Slovensko javno mnenje 2006/1: Evropska družboslovna raziskava*. Ljubljana: Fakulteta za družbene vede, Center za raziskovanje javnega mnenja in množičnih komunikacij, Univerza v Ljubljani, Arhiv družboslovnih podatkov. Available at:
http://www.adp.fdv.uni-lj.si/opisi/sjm061/opis-podatkov/
[14. 2. 2014].

Laaksonen, M., Prättälä, R. & Lahelma E., 2003. Sociodemgraphic determinants of multiple unhealthy behaviours. *Scandinavian Journal of Public Health*, 31(1), pp. 37–43.
http://dx.doi.org/10.1080/14034940210133915
PMid:12623523

Lehto, E., Konttinen, H., Jousilahti, P. & Haukkala, A., 2013. The role of psychosocial factors in socioeconomic differences in physical activity: a population-based study. *Scandinavian Journal of Public Health*, 41(6), pp. 553-559. http://dx.doi.org/10.1177/1403494813481642 PMid:23508949

Lundahl, A., Nelson, T.D., Van Dyk, T.R. & West, T., 2013. Psychosocial stressors and health behaviors: examining sleep, sedentary behaviors, and physical activity in a low-income pediatric sample. *Clinical Paediatrics,* 52(8), pp. 721-729. http://dx.doi.org/10.1177/1403494813481642 PMid:23508949

Macfarlane, D.J., Lee, C.C., Ho, E.Y., Chan, K.L. & Chan, D.T., 2007. Reliability and validity of the Chinese version of IPAQ (short, last 7 days). *Journal of Science and Medicine in Sport*, 10(1), p. 4551. http://dx.doi.org/10.1016/j.jsams.2006.05.003 PMid:16807105

Mackenbach, J.P., 2012. The persistence of health inequalities in modern welfare states: the explanation of a paradox. *Social Science & Medicine*, 75(4), pp. 761–769. http://dx.doi.org/10.1016/j.socscimed.2012.02.031 PMid:22475407

Mar Bibiloni, M., Pich, J., Córdova, A., Pons, A. & Tur, J.A., 2012. Association between sedentary behaviour and socioeconomic factors, diet and lifestyle among the Balearic Islands adolescents. *BMC Public Health*, 12, p. 718. http://dx.doi.org/10.1186/1471-2458-12-718

Marmot, M. & Wilkinson, R.G., eds., 2005. *Social determinants of health*. 2nd ed. Oxford: Oxford University Press, pp. 1-5. http://dx.doi.org/10.1093/acprof:oso/9780198565895.001.0001

Marshall, S.J. & Welk, G.J., 2008. Definitions and measurement. In: Smith, A.L. & Biddle, S. eds. *Youth physical activity and sedentary behavior: challenges and solutions*. Champaign, IL.: Human Kinetics, pp. 3-29.

Marshall, S.J., Biddle, S.J.H., Gorely, T., Cameron, N. & Murdey, I., 2004. Relationships between media use, body fatness and physical activity in children and youth: a meta-analysis. *International Journal of Obesity,* 28, pp. 1238-1246. http://dx.doi.org/10.1038/sj.ijo.0802706 PMid:15314635

Milton, K., Bull, F.C. & Bauman, A., 2011. Reliability and validity testing of a single-item physical activity measure. *British Journal of Sports Medicine*, 45(3), pp. 203–208. http://dx.doi.org/10.1136/bjsm.2009.068395 PMid:20484314

Motl, R.W., McAuley, E., Birnbaum, A.S. & Lytle, L.A., 2006. Naturally occurring changes in time spent watching television are inversely related to frequency of physical activity during early adolescence. *Journal of Adolescence*, 29(1), pp. 19–32. http://dx.doi.org/10.1016/j.adolescence.2005.01.005 PMid:16338428

Munter, J.S.L., Agyemang, C., Brewster, L.M., Stronks, K. & Van Valkengoed, I.G.M., 2012. The association of leisure-time physical activity and active commuting with measures of socioeconomic position in a multiethnic population living in the Netherlands: results from the cross-sectional SUNSET study. *BMC Public Health*, 12, p. 815. http://dx.doi.org/10.1186/1471-2458-12-815

Nettleton, S., 2006. *The sociology of health and illness*. 2nd ed. Cambridge: Polity Press, pp. 169-202.

Osler, M., Clausen, J.O., Ibsen, K.K. & Jensen, G.B., 2001. Social influences and low leisure-time physical activity in young Danish adults. *European Journal of Public Health*, 11(2), pp. 130–134. http://dx.doi.org/10.1093/eurpub/11.2.130 PMid:11420797

Oygard, L. & Anderssen, N., 1998. Social influences and leisure-time physical activity levels in young people: a twelve-year follow-up study. *Journal of Health Psychology,* 3(1), pp. 59–69. http://dx.doi.org/10.1177/135910539800300105 PMid:22021343

Page, R.M., Simonek, J., Ihasz, F., Hantiu, I., Uvacsek, M., Kalabiska, I., et al., 2009. Self-rated health, psychosocial functioning, and other dimensions of adolescent health in Central and Eastern European adolescents. *European Journal of Psychiatry*, 23(2), pp. 101–114. http://dx.doi.org/10.4321/S0213-61632009000200004

Pate, R.R., 2007. Exercise and its effects on mental health. In: Bouchard, C., Blair, S.N. & Haskell, W. eds. *Physical activity and health*. 2nd ed. Champaign, IL.: Human Kinetics, pp. 21–36.

Phelan, J.C., Link, B.G. & Tehranifar, P., 2010. Social conditions as fundamental causes of health inequalities: theory, evidence, and policy implications. *Journal of Health and Social Behavior*, 51(1), pp. 28–40. http://dx.doi.org/10.1177/0022146510383498 PMid:20943581

Poole, L., Steptoe, A., Wawrzyniak, A.J., Bostock, S., Mitchell, E.S. & Hamer, M., 2011. Associations of objectively measured physical activity with daily mood ratings and psychophysiological stress responses in women. *Psychophysiology*, 48(8), pp. 1165–1172. http://dx.doi.org/10.1111/j.1469-8986.2011.01184.x PMid:21342205

Pudrovska, T. & Anishkin. A., 2013. Early-life socioeconomic status and physical activity in later life: a structural equation modeling approach. *Journal of Aging and Health*, 25(3), pp. 383–404. http://dx.doi.org/10.1177/0898264312468601 PMid:23248349; PMCid:PMC4198340

Raglin, J.S., Wilson, G.S. & Galper, D., 2007. Exercise and its effects on mental health. In: Bouchard, C., Blair, S.N. & Haskell, W. eds. *Physical activity and health*. 2nd ed. Champaign, IL.: Human Kinetics, pp. 247–258.

Raudsepp, L., Neissaar, I. & Kull, M., 2008. Longitudinal stability of sedentary behaviors and physical activity during early adolescence. *Pediatric Exercise Science,* 20(3), pp. 251–262. PMid:18714116

Rauner, R.R., Walters, R.W., Avery, M. & Wanser, T. J., 2013. Evidence that aerobic fitness is more salient than weight status in predicting standardized math and reading outcomes in fourth- through eighth-grade students. *The Journal of Pediatrics*, 136(2), pp. 344–248. http://dx.doi.org/10.1016/j.jpeds.2013.01.006

Roberts, K., Cavill, N., Hancock, C. & Rutter, H., 2013. *Social and economic inequalities in diet and physical activity*. London: Public Health England. Available at: http://www.noo.org.uk/uploads/doc/vid_19253_Social_and_economic_inequalities_in_diet_and_physical_activity_04.11.13.pdf [31. 5. 2014].

Rowland, T.W., 2007. Physical activity, fitness, and children. In: Bouchard, C., Blair, S.N. & Haskell, W. eds. *Physical activity and health*. 2nd ed. Champaign, IL.: Human Kinetics, pp. 259–270.

Tabachnick, B.G. & Fidell, L.S., 2012. *Using multivariate statistics*. 6th ed. Boston: Pearson, pp. 117-196.

Tavčar Krajnc, M. & Kirbiš, A., 2014. Zdravje mladih v Sloveniji: analiza empiričnih podatkov iz raziskav Mladina 2010 in Youth 2013. In: Štemberger Kolnik, T., Ravnik, D., Babnik, K. & Bulič, M., eds. *Zdravstvena nega v javnem zdravju*: *druga znanstvena konferenca z mednarodno udeležbo, Izola, 31. januar 2014*. Koper: Založba Univerze na Primorskem, pp. 29–41.

Tran, D.V., Lee, A.H., Au, T.B., Chung, T.N. & Hoang, D.V., 2013. Reliability and validity of the international physical activity questionnaire-short form for older adults in Vietnam. *Health Promotion Journal of Australia*, 24(2), pp. 126–131. http://dx.doi.org/10.1071/HE13012 PMid:24168739

Wanner, M., Probst-Hensch, N., Kriemler, S., Meier, F., Bauman, A. & Martin, B. W., 2013. What physical activity surveillance needs: validity of a single-item questionnaire. *British Journal of Sports Medicine*, 48(21), pp. 1570-1576. http://dx.doi.org/10.1136/bjsports-2012-092122 PMid:23770662

West, P., 1997. Health inequalities in the early years: is there equalisation in youth? *Social Science & Medicine*, 44(6), pp. 833–858. http://dx.doi.org/10.1016/S0277-9536(96)00188-8

White, P. & McTeer, W., 2012. Socioeconomic status and sport participation at different developmental stages during childhood and youth: multivariate analyses using Canadian National Survey Data. *Sociology of Sport Journal,* 29(2), pp. 186–209.

World Health Organization, 2006. *European strategies for tackling social inequities in health: levelling up part 2*. Copenhagen: WHO Regional Office for Europe.

World Health Organization, 2010. *Global recommendations on physical activity for health*. Geneva: WHO Press, pp. 9-11.

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Original scientific article/Izvirni znanstveni članek

Organizational model of ensuring safety and quality of treatment of aggressive psychiatric patients in mental health nursing in Slovenia

Organizacijski model zagotavljanja varnosti in kakovosti obravnave agresije pri pacientu z duševno motnjo v zdravstveni negi na področju psihiatrije v Sloveniji

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Key words: nursing; violence; psychiatric hospital

Ključne besede: zdravstvena nega; nasilje; psihiatrična bolnišnica

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ABSTRACT

Introduction: The paper presents the organizational measures for managing violence in psychiatric settings and the study that introduces the preliminary success rate of the proposed model.

Methods: For the purpose of this study a non-experimental sampling method was employed using a structured questionnaire as a data collection instrument. The sample covered the personnel most frequently exposed to violence, namely, the nursing staff in closed and/or intensive psychiatric units in 5 Slovenian psychiatric hospitals, 3 psychiatric homes and 2 special education, and work and care centres. The data were statistically analysed with the SPSS 20 software package, with $p < 0.05$ indicating statistical significance.

Results: The practical part of the functional training was conducted between 2010 and 2013 in specific psychiatric hospitals and wards. In a study carried out in 2013, preliminary results indicating the success rate of the proposed model were obtained.

Discussion and conclusion: Health care workers in psychiatry are responsible for providing safe and high quality treatment even in cases of aggressive outbursts, but they lack the necessary functional knowledge to cope with aggression in the workplace. The paper presents an organizational model for ensuring the safety of the patients and the quality of their treatment in case of an aggressive outburst, along with the presentation of the required functional training.

IZVLEČEK

Uvod: Članek predstavlja organizacijske ukrepe za upravljanje nasilja v psihiatričnih bolnišnicah in raziskavo, ki obravnava preliminarne rezultate predlaganega modela.

Metode: Izvedena je bila neeksperimentalna vzorčna metoda raziskovanja. Inštrument raziskave je bil strukturirani vprašalnik. Za izvedbo raziskave so bili izbrani nasilju najbolj izpostavljeni, tj. zaposleni v psihiatrični zdravstveni negi na intenzivnih in/ali zaprtih psihiatričnih oddelkih. V raziskavi je sodelovalo pet psihiatričnih bolnišnic, trije psihiatrični domovi in dva centra za usposabljanje, delo in varstvo. Podatki so bili obdelani s statističnim programom SPSS 20,0, upoštevana je bila stopnja značilnosti $p < 0,05$.

Rezultati: Praktični del funkcionalnega izobraževanja se je izvajal v letih 2010–2013 v nekaterih psihiatričnih bolnišnicah in oddelkih. Preliminarna raziskava, ki je bila opravljena leta 2013, je pokazala na uspešnost predlaganega organizacijskega modela.

Diskusija in zaključek: Zaposleni v psihiatrični zdravstveni negi so odgovorni za zagotavljanje varnosti in kakovosti obravnave v primeru agresivnega izbruha, vendar za le-to ne posedujejo dovolj funkcionalnih znanj. Članek predstavlja organizacijski model za zagotavljanje varnosti in kakovosti obravnave v primeru agresivnega izbruha in ustrezno funkcionalno izobraževanje.

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Introduction

Despite its humanistic role, psychiatry, in contact with the environment, cannot avoid occasional violent behaviour of its patients. Psychiatrists at times attempt to ignore the potential as well as the actual violence, however, the general assertion that there is no violence-free psychiatry tends to remain valid (Kobal, 2009).

Ensuring the safety of psychiatric patients and the quality of their treatment is of paramount importance at every level of health care and of every medical profession. With the development of modern society and ensuing trends the incidence of psychiatric disorders is growing. Despite the advancement of psychiatry, violence and aggression remain a significant problem in psychiatric health settings. Therefore, acute psychoses and various other states where aggression is to be expected will continue to occur (Gabrovec, et al., 2014).

Groleger (2009) postulates that epidemiology of violent behaviour in psychiatry states that individuals with a mental illness behave violently 3-4 times more often than those in the control group. Prevalence of schizophrenia in the overall population is 1 %, among the perpetrators of criminal acts it reaches 3.6 %, among murderers 7-15 %, and among murderers who were acquitted due to insanity 57-80 %.

According to a Slovenian study as many as 42 % of psychiatric nurses are exposed to physical violence and as many as 73 % are of the opinion that more needs to be done in terms of security (Kolman, 2009). Health care workers, especially the nursing staff, are the occupational categories most frequently exposed to physical violence of psychiatric patients. However, other groups involved in the treatment process are also confronted with workplace violence as well: the police, security agencies, paramedics, personnel in retirement homes, and other. Between 35–80 % of health care workers were at least once physically assaulted at their workplace, with nurses being the most exposed group (Clements, et al., 2005). The percentage of injuries in health care is 6.1 per 10,000, while in other work fields it is 2.1 per 10,000. Despite statistically high percentage of injured in health care, the actual numbers are even higher, mainly due to frequent non-reporting of incidents (Gates, et al., 2011). As many as 70 % of incidents or abuses of nurses remain non-reported (Stokowski, 2010). A Swedish study shows that the majority of the participants (85 %) reported having been exposed to violence during their careers, with 57 % being victimized in the past 12 months (Soares, 2000). Findings from a Swiss study reveals that 72 % of nurses experienced verbal patient and visitor violence and 42 % physical patient and visitor violence in the past 12 months. In addition, 23 % were physically injured and 1.4 % took one or more days of sick leave. Patient and visitor violence was distressing for the nursing staff (Hahn, et al., 2010). Medical staff in psychiatric hospitals and institutions are most frequently exposed to violent behaviour of patients. They are neither properly trained nor authorised to manage aggression. However, they are responsible for providing the safety of the aggressive and other patients, the physical surroundings and themselves. The nurses and the assistants who are in direct contact with patients are at the highest risk of being the victims of violence. Other hospital staff, paramedics and hospital safety officers are exposed to increased risk of violence as well (National Institute for Occupational Safety and Health, 2002). Among the most exposed are the workers in emergency medical units and especially those working in closed and intensive psychiatric wards. The number of (severe) violent incidents against staff by psychiatric inpatients is high (Van Leeuwen & Harte, 2011). Nurses are the first to meet the victims of ever increasing violence. In addition, nurses suffer damage from social tolerance of violence (World Health Organization, 2002). Studies point to a varied but nevertheless high occurrence of all types of violence directed at nursing staff in psychiatric health care. In Taiwan 19.6 % of nurses indicated that they had experienced physical violence (Pai & Lee, 2011).

In 2013, an extensive study of incidence of violence against the employees in psychiatric hospitals, psychiatric homes, retirement homes and special education, work and care centres (SEWCC) was conducted in Slovenia (Gabrovec, et al., 2014). In Table 1 the types and percentage of violence against the employees in health care in Slovenian psychiatric hospitals are presented.

Table 1: *Types and percentage of violence against the employees in health care in Slovenian psychiatric hospitals (Gabrovec, et al., 2014)*
Tabela 1*: Vrste in odstotki nasilja usmerjenega proti zaposlenim v zdravstveni negi v Slovenskih psihiatričnih bolnišnicah (Gabrovec, et al., 2014)*

Types of violence/Vrste nasilja (*n*=203)	*%*
Verbal abuse by patients	92.6 %
Verbal abuse by relatives	40.9 %
Verbal abuse by co-workers	13.3 %
Verbal abuse by superiors	13.8 %
Sexual harassment by patients	24.6 %
Sexual harassment by relatives	0.5 %
Sexual harassment by co-workers	0.5 %
Sexual harassment by superiors	0.5 %
Physical violence by patients	84.2 %
Physical violence by relatives	2.0 %
Physical violence by co-workers	1.0 %
Physical violence by superiors	0.5 %
Injury caused by patients	63.5 %

Legend/Legenda: n – number/število; % – percentage/odstotek

The results of the study point to extensive exposure of employees to violence at workplace, especially by the patients. As many as 92.6 % of all employees at psychiatric wards face verbal violence. These results are comparable only to those of a study conducted in Sweden (Soares, et al., 2000), where the percentage of physical violence by patients is 85 % to Slovenian 84.2 %, and to a Turkish study (Picakciefe, et al., 2012) with 71.4 %. The frequency of physical violence by patients in Slovenia is higher in comparison to 35 - 80 % in the United States of America (USA) (Clements, et al., 2005), 25 % in the USA (Privitera, et al., 2005), 42 % in Switzerland (Hahn, et al., 2010). The findings of the study correspond to theory (Klemenc & Pahor, 2000; Davison, 2005; Kobal, 2009), and the theories of violence in organizations (Pagon, et al., 2001; Bowie, 2002).

The study Gabrovec and colleagues (2014) further shows that the employees in psychiatric health care are equally threatened in the event of a violent outburst, regardless of their gender, age, work experience or level of education.

Health care workers require systematic and continuous aggressive situation management training (practical part) and general and institution specific management guidelines. The development of guidelines must include the cooperation between psychiatry and general martial arts approaches and principles, which is important for the preservation of a therapeutic relationship with the patient. The guidelines, as a general and an institution specific document should include all aspects of physical restraint, escort, therapy application, self-defence techniques and restraining with the belt. Instructions for physical restraint serve as a unified starting point for all personnel, procedures and the actual acts of physical restraint. The development of guidelines and continuous training contribute to medical workers' confidence and equip them with the knowledge to manage aggressive situations, which in turn leads to a more successful and safe management of such situations (Gabrovec, 2009).

Organizational model for ensuring safety and quality of treatment in case of aggressive behaviour

The proposed organizational model deals with comprehensive aggression management in patients with mental disorder. It sets theoretical frameworks of management and practical techniques when using special security measures and physical restraint. The model is the basis for functional education which rests mainly on practical training (Gabrovec, 2014).

Only a minority of health care workers (nurses, technicians, physicians, clinical psychologists) perceive their work as dangerous. The victims of patients' violent behaviour are most frequently nurses and health care technicians, especially in cases of involuntary hospitalization, physical restraint and the administration of medicaments (Gabrovec, 2014).

In their study Mrevlje and Umek (2011) showed that the respondents are of the opinion that more training in self-defence is needed, along with additional competent and predominantly male co-workers, communication skills training and better cooperation within the team. They also feel that health care workers, victims of patient's violent behaviour, should be entitled to some form of systematic help. Occasionally, violent events demand the intervention of the resident security service whose members are not adequately trained for such interventions. Therefore, these groups must be provided with training that will assist them in coping with aggression and violence at workplace.

The legal basis for the organizational model of ensuring safety against aggressive psychiatric patients is founded on the Slovenian Mental Health Act (2008), Recommendations and Guidelines for the Use of Special Measures in Psychiatry (Dernovšek & Novak, 2001) and the Protocol for the Use of Physical Restraint in Hospitals (Kovač, 2012).

The organizational model is divided in to following modules:

- situation assessment and the identification of factors that increase the risk of aggressive behaviour;
- the use of behavioural cognitive and de-escalation techniques;
- the use of a special security measure;
- the use of adapted physical restraint techniques for managing aggression;
- measures following an aggressive outburst;
- education through functional training model (Gabrovec, 2014).

Purpose and goal

Employees in psychiatric health care are often confronted with the violence from patients with mental disorder. They are faced with various types of violence: verbal, sexual, physical violence often resulting in injuries. The paper introduces a model of functional education for the management of psychiatrics patients' aggressive behaviour, suitable for a wide range of involved participants who in their line of work encounter aggressive patient with mental disorder.

From 2010 to 2013 a pilot functional training programme in various psychiatric hospitals, wards, psychiatric homes and special education, work and care centres was carried out. In the form of workshops, the programme focused on the practical application of adapted techniques of physical restraint with the aim of managing aggressive behaviour. The aim of the study was to show:

- the extent of change of certain states and emotions of the employees following the functional education, and
- whether the knowledge of the employees has improved.

Hypotheses

Hypothesis 1: There are statistically significant differences in identifying the competences and certain emotions obtained through training.

Hypothesis 2: There are statistically significant differences in dealing with the lack of knowledge before and after training.

Hypothesis 3: There are statistically significant differences in dealing with fear before and after training.

Methods

The empirical part of the study is based on the quantitative, non-experimental research, with a questionnaire being used as the method of gathering data.

Description of the research instrument

A structured questionnaire was used, designed on the basis of literature on both psychiatric conditions and ensuring security and quality of a psychiatric patient's treatment (Bowie, 2002; Davison, 2005; Kobal, 2009; Hahn, et al., 2010). The questionnaire consisted of 80 questions divided into five sets: work and workplace related violence, work management, the influence of various factors on patient safety and the quality of patient treatment, education and demographics. The dependent variable was risk management, while the independent variables were supplies sufficiency, a clear picture of risks involved, awareness of work-related mistakes, attention to conditions that promote safety, attention to the importance of safety within the institution, reaction to outbursts of violence, supervision, motivation and personnel incentives, adequate number of employees, violent outbursts protocols, an unfortunate event report form, team treatment and support, improvement measures (introduced in this article). Following scales were utilised with descriptive scale (1 - 3): I don't agree, I partially agree, I agree.

While developing the questionnaire, a focus group of post graduate nursing students (2nd cycle) was formed whose remarks and suggestions were entered into the questionnaire.

The content of the questionnaire proved valid and reliable, with high enough degree of internal consistency (Cronbach Alpha minimum 0.82). The external validity of the questionnaire was evaluated through a focus group, prior to data acquisition.

Sample description

The most exposed employees were chosen to participate in the study: nursing staff in closed and/or intensive psychiatric wards. 5 Slovenian psychiatric hospitals, 3 psychiatric homes and 2 special education, work and care centres participated in the study. The sample included male and female nursing employees with secondary, vocational, graduate, and postgraduate education, with varied years of work experience. The survey included the entire population of nursing employees (approximately 450) in intensive and/or closed wards of the aforementioned institutions.

386 questionnaires were distributed among the staff. 303 (78.49 %) returned and 83 did not return the questionnaire. The survey was conducted in March and April 2013.

Out of 303 participants, 117 (38.6 %) were male and 186 (61.4 %) were female. Mean age of the participants was 37.58 (s = 8.9 years). The oldest participant was 58 and the youngest was 19 years old. Their level of education was as follows: 206 (68 %) secondary, 7 (2.3 %) vocational, 74 (24.4 %) graduate, 16 (5.3 %) postgraduate education. Their mean working experience was 15.97 (s = 9.3) years.

Description of the research process and data processing

The survey was conducted in March and April 2013. Participation in the survey was voluntary and the questionnaire was anonymous. A permission to conduct the survey was obtained from the management of each individual institution. The survey was conducted in accordance with the Code of Ethics for Nurses and Nurse Assistants of Slovenia and the Declaration of Helsinki. Written source analysis, descriptive statistics and certain other sophisticated statistical methods were used (e.g. Kruskal-Wallis test for comparing the results of individual test groups and the Mauchly's sphericity test). The data were statistically analysed with the SPSS 20 software package, with $p < 0.05$ indicating statistical significance.

Results

In Table 2, some of the emotional competences and states experienced by the employees when treating an aggressive patient with mental disorder are presented (on a scale from 1 to 3).

The survey participants mostly have to cope with vulnerability (2.52), fear (2.49), insecurity (2.36), helplessness (2.03), lack of empathy by superiors (1.74), despair (1.77), lack of training (1.67), anger (1.64) and, to the smallest extent, with the lack of empathy by co-workers (1.34).

Out of 303 participants, 182 took part in the functional training programme. The degree to which their competences and emotional states have changed after the programme is shown in Table 3.

Survey participants state that all survey items have improved after the programme. The results indicate that Expertise (2.78), Assertiveness (2.74) and Organization

Table 2: *Employees dealing with certain emotions and states*
Tabela 2: *Soočanje zaposlenih z določenimi stanji in čustvi*

Claim	I don't agree	I partially agree	I agree	$\bar{x}$	*s*
Fear	5.9%	38.9%	55.2%	2.49	0.60
Insecurity	12.3%	38.4%	49.3%	2.36	0.69
Helplessness	21.2%	53.7%	25.1%	2.03	0.68
Lack of training	48.3%	36.5%	15.3%	1.67	0.72
Anger	47.8%	40.4%	11.8%	1.64	0.68
Despair	49.3%	23.6%	27.1%	1.77	0.84
Vulnerability	6.9%	34%	59.1%	2.52	0.62
Lack of empathy by co-workers	70%	25.1%	4.9%	1.34	0.57
Lack of empathy by superiors	42.9%	39.4%	17.7%	1.74	0.73

Legend/Legenda: $\bar{x}$ – average/povprečje; s – standard deviation/standardni odklon

Table 3: *Identification of competences and emotional states gained through the programme*
Tabela 3: *Identifikacija kompetenc in čustev, pridobljenih z izobraževanjem*

	n	Min	Max	$\bar{x}$	*s*
Organization	182	1.00	3.00	2.68	0.54
Expertise/professionalism	182	1.00	3.00	2.78	0.43
Assertiveness	182	1.00	3.00	2.74	0.48
Proactivity	182	1.00	3.00	2.63	0.49
Self-confidence	182	1.00	3.00	2.67	0.51
Fear	182	1.00	3.00	2.11	0.73
Helplessness	182	1.00	3.00	2.28	0.70
Insecurity	182	1.00	3.00	2.48	0.66
Lack of training	183	1.00	3.00	2.57	0.66
Valid N	182				

Legend/Legenda: n – number/število; Min – minimum/minimum; Max – maximum/maksimum; $\bar{x}$ – average/povprečje; s – standard deviation/standardni odklon

Table 4: *Descriptive statistics of the »lack of expertise« variable (before and after the programme)*
Tabela 4: *Opisne statistike spremenljivke neznanje (pred in po usposabljanju)*

	Institution/Organizacija	$\bar{x}$	*s*	*n*
Lack of expertise (before programme)	Psychiatric hospital	1.69	0.72	146
	Psychiatric homes, retirement homes	1.46	0.70	26
	SEWCC	1.36	0.50	11
	All	1.64	0.71	183
Lack of expertise (after the programme)	Psychiatric hospital	2.64	0.62	146
	Psychiatric homes, retirement homes	2.26	0.72	26
	SEWCC	2.45	0.82	11
	All	2.57	0.66	183

Legend/Legenda: $\bar{x}$ – average/povprečje; s – standard deviation/standardni odklon; n – number/število

(2.68) bettered to the greatest extent and Fear (2.11) and Helplessness (2.28) to the smallest extent. Other items were graded: Self-confidence (2.67), Proactivity (2.63), Lack of training (2.57) and Insecurity (2.48). The best rated item 'Expertise' points to a high added value of the programme, whereas the worst rated 'Fear' to the need of including fear management to the proposed organizational model, thereby confirming Hypothesis 1. The variable 'Fear' was also cross-checked with the use of Wilcoxon Signed-rank test, which confirmed that no statistically important differences occurred prior or after the programme with most of the survey

Table 5: *'Lack of expertise' variable effect testing within the groups*
Tabela 5: *Testiranje učinkov znotraj skupin pri spremenljivki neznanje*

Source		Type III Sum of Squares	df	Mean Square	*F*	*p*	Partial Eta Squared
Lack of expertise	Sphericity Assumed	29.68	1	29.68	76.05	<0.001	0.29
	Greenhouse-Geisser	29.68	1	29.68	76.05	<0.001	0.29
	Huynh-Feldt	29.68	1	29.68	76.05	<0.001	0.29
	Lower-bound	29.68	1	29.68	76.05	<0.001	0.29
Lack of expertise	Sphericity Assumed	0.35	2	0.17	0.45	0.63	0.005
	Greenhouse-Geisser	0.35	2	0.17	0.45	0.63	0.005
	Huynh-Feldt	0.35	2	0.17	0.45	0.63	0.005
	Lower-bound	0.35	2	0.17	0.45	0.63	0.005
Error Lack of expertise	Sphericity Assumed	70.25	180	0.39			
	Greenhouse-Geisser	70.25	180.00	0.39			
	Huynh-Feldt	70.25	180.00	0.39			
	Lower-bound	70.25	180.00	0.39			

Legend/Legenda: df – mean value of sum squares/povprečje vsote kvadratov: Sig – p value/vrednost p; F statistic – fixation indices/F statistika

participants. Table 4 demonstrates the descriptive statistics of the 'lack of expertise' variable (before and after the programme).

The survey results show that the mean value of the 'Lack of expertise' before the programme was 1.65, whereas after the programme it rose up to 2.58. However, when looking at the estimate of the 'Lack of expertise' according to the institution, the perception of the 'Lack of expertise' after the programme diminished in all types of institutions.

The study also shows that the estimated mean value of the perception of the 'Lack of expertise' in the period before and after the programme increased. Table 5 demonstrates 'Lack of expertise' variable effect testing within the groups.

The study shows that the sphericity was not achieved. Consequently, the Greenhouse-Geisser line in the table indicates that in overall, there are statistically significant differences between the studied periods in the perception of the lack of expertise ($F = 76.05$, $p < 0.001$, $p < 0.05$). Thereby, hypothesis 2 is confirmed. The study validated the preliminary successfulness of the proposed organizational model. The results were additionally tested from the point of view of demographic data and the type of institution as related to the lack of expertise and proficiency, whereby no significant statistical differences were established ($F = 0.45$, $p < 0.63$, $p < 0.05$).

The emotion of fear before and after the training was also examined.

The study shows that the fear medians remained the same before and after training. The feelings of fear were measured on a scale of 1 to 3, with 1 indicating disagreement, 2 partial agreement and 3 complete agreement with the statement that the feeling of fear occurs during the treatment of a patient.

Wilcoxon Signed-Rank test was performed in order to determine the difference between the feeling of fear before and after training. The test points to statistically significant differences in perceiving fear before and after training ($z = - 3.569$, $p < 0.05$).

The study indicates that no changes occurred in 76 employees, 67 felt a change for the better and 37 felt a change for the worse. The medians before and after training were the same, therefore hypothesis 3 was rejected since it held true for most of the participants that there were no statistically significant changes in the perception of fear. A possible explanation for this occurrence was the short duration of the training programme at the time of the survey.

Discussion

The results of this study point to extensive exposure of employees to violence at workplace, especially by the patients. Compared to the rest of the world, the results are only comparable with a study conducted in Sweden (Soares, et al., 2000) and to a Turkish study (Picakciefe, et al., 2012). The frequency of physical violence by patients is higher in Slovenia in comparison to the USA (Clements, et al., 2005; Privitera, et al., 2005) and Switzerland (Hahn, et al., 2010).

The results also indicate that respondents predominantly have to cope with vulnerability, fear, insecurity, helplessness, lack of empathy by superiors, despair, lack of training, anger and, to the smallest extent, with the lack of empathy by co-workers.

From 2010 to 2013 a pilot functional training programme in various psychiatric hospitals, wards, psychiatric homes and special education, work and care centres was carried out. In the form of workshops, the programme focused on the practical application of

adapted techniques of physical restraint with the aim of managing aggressive behaviour. In view of the short duration of the training programme, the primary aim was to obtain preliminary data on the successfulness of the programme.

Survey participants state that all survey items have improved after the programme: Expertise, Assertiveness and Organization to the greatest extent, and Fear and Helplessness to the smallest extent. The best rated item 'Expertise' points to a high added value of the programme, whereas the worst rated 'Fear' to the need of including fear management to the proposed organizational model. The study indicates no statistically significant changes in the perception of fear in most of the participants, most probably due to the short duration of the training programme at the time of the survey.

The findings of the current study on the prevalence of violence directed at employees in psychiatric health care are consistent with those of other studies. Since no similar research has as yet been conducted on the success rate of the proposed model in other countries, no direct comparison is presently possible. Preliminary results on the successfulness of the training programme indicate its positive influence on the effectiveness of their work and the security of the employees and in turn the patients. Therefore, it would be reasonable to use this form of training in all institutions where psychiatric patients' violence occurs.

Limitations of the study

In terms of methodology, the study is deficient because it was not conducted in our largest psychiatric hospital. However, it did include all the others (6). Since it encompassed the entire employee population in intensive wards, the results can be generalized. Deficiencies can be further ascertained in the measurement scale in certain questions where the scale was 1 to 3 and not 1 to 5, which would facilitate greater data dispersion and easier data analysis.

Conclusion

The paper discusses the incidence of aggression in psychiatric health care settings in Slovenia. The epidemiological, experiential and empirical data of the frequency of aggression directed towards the employees in psychiatric health care facilities are presented. The purpose and objective of the research were achieved.

An organizational model for ensuring safety and quality of treatment in case of an aggressive patient with mental disorder and preliminary results of the success rate of the functional training based on the proposed model are examined. The results lead to a conclusion that the organizational model is suitable for wider use with all stakeholders involved in the treatment of a patient with mental disorder and for the development of a health care standard and manual. The implementation of the training programme is recommendable also in other institutions encountering psychiatric patients' violence. Repeated research is advised in order to clearly determine whether the programme may bring about the intended or expected effect. Further studies are reasonable in somatic medicine, which would enable the development of a model of training for other medical professionals and the implementation of a special security measure.

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Literature

Bowie, V., 2002. Defining violence at work: a new typology. In: Gill, M., Fisher, B. & Bowie, V. eds. *Violence at work: couses, patterns and prevention*. Portland: Willan Publishing. pp.1-20.

Clements, P.T., DeRanieri, J.T., Clark, K., Manno, M.S. & Kuhn, D.W., 2005. Workplace violence and corporate policy for health care settings. *Nursing Economics,* 23(3), pp. 119-124. PMid:16033140

Davison, S.E., 2005. The management of violence in general psychiatry. *Advances in Psychiatric Treatment*, 11, pp. 362-370. http://dx.doi.org/10.1192/apt.11.5.362

Dernovšek, M. & Novak, G.V., 2001. *Priporočila in smernice za uporabo posebnih ukrepov v psihiatriji*. Ljubljana: Viceversa.

Gabrovec, B., 2009. Smernice fizičnega oviranja. In: Poček, U. ed. *Nasilno vedenje v duhu novih praks: smernice fizičnega oviranja.* Ljubljana: Zbornica zdravstvene in babiške nege – Zveza strokovnih društev medicinskih sester, babic in zdravstvenih tehnikov Slovenije, Sekcija medicinskih sester in zdravstvenih tehnikov v psihiatriji, pp. 25-26.

Gabrovec, B., Eržen, I. & Lobnikar, B., 2014. The prevalence and the nature of violence directed at the medical staff in psychiatric health care in Slovenia. *HealthMED*, 8(2), pp. 228-234.

Gabrovec, B., 2014. *Organizacijski model zagotavljanja varnosti in kakovosti obravnave psihiatričnega bolnika z vidika različnih deležnikov: doktorska disertacija.* Kranj. Univerza v Mariboru, Fakulteta za organizacijske vede, p.122.

Gates, D.M, Gillespie, G.L, & Succop, P., 2011. Violence against nurses and its impact on stress and productivity. *Nursing Economics,* 29(2), pp. 59-67.
PMid:21667672

Groleger, U., 2009. Agresivnost. In: Pregelj, P. & Kobentar, R. eds. *Zdravstvena nega in zdravljenje motenj v duševnem zdravju*. Ljubljana: Rokus Klett, pp. 288-294.

Hahn, S., Muller, M., Needham, I., Dassen, T., Kok, G., & Halfens, R.J.G., 2010. Factors associated with patient and visitors violence experienced by nurses in general hospitals in Switzerland: a cross-sectional survey. *Journal of Clinical Nursing*, 19(23-24), pp. 3535-3546. http://dx.doi.org/10.1111/j.1365-2702.2010.03361.x PMid:20958803

Kobal M., 2009. *Security and legal psychopathology.* Ljubljana: University of Maribor, Faculty of Criminal Justice and Security.

Kolman, K., 2009. *Ogroženost medicinskih sester in zdravstvenih tehnikov v psihiatrični bolnišnici: diplomsko delo visokošolskega študija*. Ljubljana: Univerza v Mariboru, Fakulteta za varnostne vede.

Kovač, P., 2012. Physical restraint of pacients in clinical practice. In: Bregar, B. & Peterka-Novak, J. eds. *Restraint and seclusion as special precautionary measures in theory and clinical settings: proceedings of lectures with peer review*. Ljubljana: Zbornica zdravstvene in babiške nege - Zveza strokovnih društev medicinskih sester, babic in zdravstvenih tehnikov Slovenije, Sekcija medicinskih sester in zdravstvenih tehnikov v psihiatriji, pp. 5-12.

Klemenc, D. & Pahor, M., 2000. Nasilje na delovnih mestih medicinskih sester v Sloveniji. In: Klemenc, D. & Pahor M. eds. *Nasilje in spolno nadlegovanje na delovnih mestih medicinskih sester v Sloveniji*. Ljubljana: Društvo medicinskih sester in zdravstvenih tehnikov, pp. 12-35.

Mrevlje, P.T. & Umek, P., 2011. Safety issues in psychiatric settings. *Varstvoslovje, Journal of Criminal Justice and Security*, 13(4), pp. 431-443. Available at: http://www.fvv.uni-mb.si/rV/arhiv/2011-4/06_PavsicMrevlje_Umek.pdf [16. 11. 2014].

National Institute for Occupational Safety and Health, 2002. *Violence occupational hazards in hospitals*. Atlanta: Centers for Disease Control and Prevention. Available at: http://www.cdc.gov/niosh/docs/2002-101/ [5. 6. 2014].

Pagon, M., Lobnikar, B. & Jereb, J., 2001. Agresivno vedenje in nasilje na delovnem mestu ter pomen njunega upravljanja za zagotavljanje organizacijske uspešnosti in učinkovitosti. In: Vukovič, G. ed. *Management in globalizacija: zbornik posvetovanja z mednarodno udeležbo*. Kranj: Moderna organizacija, pp. 114-127.

Pai, H.C, & Lee, S., 2011. Risk factors for workplace violence in clinical registered nurses in Taiwan. *Journal of Clinical Nursing,* 20(9-10), pp. 1405-1412. http://dx.doi.org/10.1111/j.1365-2702.2010.03650.x PMid:21492284

Picakciefe, M., Akca, S., Elibol, A., Deveci, A., Yilmaz, N. & Yilmaz, U.E., 2012. The analysis of violence against the nurses who are in employee status in Mugla State Hospital, Turkey. *HealthMED*, 6(11), pp. 3626-3637.

Privitera, M., Weisman, R., Cerulli, C. Tu, X., & Groman, A., 2005. Violence toward mental health staff and safety in the work environment. *Occupational Medicine*, 55(6), pp. 480-486. http://dx.doi.org/10.1093/occmed/kqi110 PMid:15923198

Stokowski, L.A., 2010. Violence: not in my job description. *Workplace Violence in Healthcare Settings*. Available at: http://www.medscape.com/viewarticle/727144 [5. 6. 2014].

Soares, J.J.F., Lawoko, S. & Nolan, P., 2000. The nature, extent and determinants of violence against psychiatric personnel. *Work and Stress,* 14(2), pp. 105-120. http://dx.doi.org/10.1080/026783700750051630

Van Leeuwen, M.E, & Harte, J.M., 2011. Violence against care workers in psychiatry: is prosecution justified? *International Journal of Law and Psychiatry,* 34(5), pp. 317-323. http://dx.doi.org/10.1016/j.ijlp.2011.08.011 PMid:21924773

World Health Organization, 2002. *World report on violence and health.* Geneva: WHO.

Zakon o duševnem zdravju, 2008. Uradni list Republike Slovenije št. 77/2008.

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Original scientific article/Izvirni znanstveni članek

Factors affecting nurses' organizational commitment

Pripadnost medicinskih sester in opredelitev njenih dejavnikov

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Key words: hospital; nurses; job satisfaction; commitment

Ključne besede: bolnišnica; medicinske sestre; zadovoljstvo pri delu; pripadnost

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ABSTRACT

Introduction: Commitment to an organization can be described as employee's belief in the goals of the organization and determination to remain a part of the organization. The aim of the study was to establish the level of nurses' commitment and to identify the factors affecting the commitment.

Methods: 5.4 % of the total nursing population in Slovenian hospitals participated in the study. The questionnaire that was employed included statements related to leadership style, interpersonal relationship, organizational support, nurses' job satisfaction and commitment. The statistical analysis included the correlation analysis, ANOVA analysis and multivariate regression analysis.

Results: Leaders in nursing are statistically significantly ($F = 41.588$, $p < 0.001$) more committed to an organization than other nurses. There is a positive correlation between nurses' commitment, job satisfaction, interpersonal relationship, organizational support and leadership style. With multivariate regression analysis, 78 % of total variability of nurses' commitment can be explained with interpersonal relationship, job satisfaction, organizational support and leadership style.

Discussion and conclusion: Employees' commitment and job satisfaction correlate with quality, performance of hospitals and their competitiveness. The responsibility of managers and leaders in nursing is also to consider and direct people in the field of commitment and not only to provide quality services. It is recommended that once a year the managers survey the satisfaction and commitment of all employees.

IZVLEČEK

Uvod: O pripadnosti zaposlenih organizaciji lahko govorimo, kadar zaposleni verjame v cilje organizacije in je odločen, da ostane v tej organizaciji. Namen raziskave je bil ugotoviti stopnjo pripadnosti in prepoznavanje dejavnikov pripadnosti medicinskih sester.

Metode: V raziskavi je sodelovalo 5,4 % vseh zaposlenih v zdravstveni negi v slovenskih bolnišnicah. Vprašalnik je vseboval trditve, ki se nanašajo na način vodenja, medosebne odnose, organizacijsko podporo, zadovoljstvo pri delu ter pripadnost zaposlenih. Za obdelavo podatkov je bila uporabljena deskriptivna statistika, ANOVA in multivariatna regresijska analiza.

Rezultati: Vodje v zdravstveni negi so statistično značilno ($F = 41{,}588$, $p < 0{,}001$) bolj pripadni organizaciji od ostalih sodelujočih medicinskih sester. Obstaja pozitivna korelacija med pripadnostjo zaposlenih, zadovoljstvom pri delu, medosebnimi odnosi, organizacijsko podporo in stilom vodenja. Z multivariatno regresijsko analizo je bilo ugotovljeno, da lahko 78 % celotne variabilnosti pripadnosti medicinskih sester pojasnimo z medosebnimi odnosi, zadovoljstvom pri delu, organizacijsko podporo in stilom vodenja.

Diskusija in zaključek: Pripadnost zaposlenih ter zadovoljstvo pri delu korelira s kakovostjo, uspešnostjo bolnišnic in njihovo konkurenčnostjo. Managerji in vodje v zdravstveni negi morajo upoštevati in nameniti skrb zaposlenim na področju zadovoljstva in pripadnosti in ne samo skrbeti za zagotavljanje kakovosti storitev. Smiselno bi bilo enkrat na leto spremljati zadovoljstvo in pripadnost vseh zaposlenih.

This article based on the MSc thesis of Mateja Lorber *Behaviour, characteristics and competencies of leaders in conection with satisfction and commitment of employes in nursing* (2010).

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Introduction

Employees' commitment is a professional multidimensional construct (Meyer & Herscovitch, 2001; Varona, 2002; Yoon & Thye, 2002) which is defined by the identification of the organization's mission and work ethic, and the effect on employees' work behavior using two approaches. The above authors noted that one is the emotional/affective approach, which is focused on job satisfaction, and the other is cognitive approach, focused on the perceptions received by leaders' support (organizational support). Organizational support and job satisfaction were considered to be predictors of nurses' commitment to an organization (Rhodes & Eisenberg, 2002; Kuokkanen, et al., 2003; Makanjee, et al., 2006; Chang, et al., 2007; Cohen, 2007; Markovits, et al., 2008; Al-Hussami, et al., 2011). Mihalič (2008) notes that employees' commitment can be recognized as an expressed sense of an individual belonging to an organization, and a team that wants to help colleagues in the organization to support their leader to act. Leaders have to work in accordance with work ethic and professionalism, be committed to their employees, and not leave an organization in a crisis. They have the honour to do their job, promote the good name of the organization, and the like. Musek Lešnik (2006) explains that the real employees' commitment indicates identification and internalized involvement of employees with organizations. Meyer and Herscovitch (2001); Musek Lešnik (2006) and Mihalič (2008) note that there are several types of employees' commitment, like employees' commitment to a team or group, to a career, to an organization, and other. Musek Lešnik (2006) also observes that employees can work successfully only if they are satisfied. Mihalič (2008) states that employee commitment is an important variable in studying behavioral patterns of employees and their efficiency. Various studies (Lok & Crafford, 2001; Loke, 2001; Avolio, et al., 2004; Lok & Crafford, 2004; Pillai & Williams 2004; Lok, et al., 2005; Leach, 2005; McColl-Kennedy & Anderson, 2005) reveal the relationship between leadership style and employees' commitment. Some studies (Meyer & Herscovitch, 2001; Allen, 2003; Chen & Francesco, 2003; Vandenberghe, 2003; Powell & Meyer, 2004) have established a strong positive relationship between employees' commitment and desirable work outcomes, such as performance, adaptability and job satisfaction. Other studies (Ingersol, et al., 2002; Redfern, et al., 2002; Wu & Norman, 2006; Chang & Chang, 2007; Lu, et al., 2007; Güleryüz, et al., 2008; Yang & Chang, 2008) reveal positive effects of job satisfaction on employees' commitment. Some organizational studies also show that the level of education affects employees' commitment (Casper & Buffardi, 2004; Chen, et al., 2005; Lee, 2005; Nogueras, 2006; Al-Hussami, 2009). A review of the relevant literature reveals that several studies have been conducted to identify the organizational commitment in nursing (McNeese-Smith, 2001; Ingersoll, et al., 2002; Nogueras, 2006; Carver & Candela, 2008).

Aims and objectives

Employees' commitment is important for health care institutions, not only for the quality of care, but also for patients' satisfaction. The aim of the study was to determine the level of commitment of nurses and to identify factors of nurses' commitment. The hypothesis is as follows:

H1: Job satisfaction, interpersonal relationship and leadership style are related to nurses' commitment.

Methods

This study was a secondary analysis of data collected in a cross-sectional survey of employees in nursing in Slovenian hospitals which was originally conducted in the year 2009. A nonexperimental quantitative research method was used in the current study.

Description of the research instrument

The data were collected through a questionnaire consisting of 78 closed-type questions. The questionnaire was prepared on the basis of literature review (Allen & Meyer 1990; Meyer & Herscovitch, 2001; Mihalič, 2008) and in cooperation with the O. K. Consulting d.o.o. (Company for education and transformational management), and was tested in a pilot study (10 leaders and 30 employees).

The first part of the questionnaire included demographic data: gender, age, institution, years of employment, years of employment in a leading position, and the level of education. The second part of the questionnaire contained 20 items of leadership style (Cronbach α was 0.788), 10 items referred to interpersonal relationship (Cronbach α was 0.803), and 10 items assessed the organizational support (Cronbach α was 0.798). In the third part of the questionnaire, 20 items were related to job satisfaction (Cronbach α was 0.849), and 18 items to employees' commitment (Cronbach α was 0.792). For the statements a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree) was used.

Sample description

The questionnaire was distributed to 750 nursing employees, i. e. 26.8 % of 2802 nurses working in Slovenian hospitals participating in the study, or 8 % of the 9404 nursing employees in all Slovenian hospitals (Trdić, et al., 2010). 110 questionnaires were sent to middle-level and unit-level nurse leaders and 640 to other nursing employees. The purposive sampling was used in the study including only those nurse leaders

whose job was relevant to the research. The maximum time to return the completed questionnaire was 20 days. The questionnaires were collected in special boxes designed to ensure anonymity. 509 questionnaires were properly completed, and the response rate was 67.8 %. This sample represented 5.41 % of all employees in nursing in Slovenian hospitals.

The study included 96 nursing leaders and 413 other employees in nursing. There were 11 men and 498 women. The average age of leaders was 43.5 years (range 33-59), and of other employees 38 years (range 21-60). On average, leaders spent 10.1 years in the leading position (10 % had been in the leading position for a year or less and 6.3 % more than 25 years), while other employees were employed for an average of 16.5 years in the participating hospitals.

Procedures and statistical methods

The study took place in 4 major Slovenian hospitals. Out of 25 hospitals from the hospital list, every fifth major Slovenian hospital was selected, one hospital declined participation in the study. The questionnaires were distributed in the morning shift, by authors in one hospital and by the research coordinator in other 3 hospitals. A waiver of consent for the study was granted by all participating hospitals. The survey took approximately 15-20 minutes to complete.

For statistical analysis, the Statistical Package for the Social Sciences version 20.0 (IBM; SPSS Inc., Chicago, IL, USA) was used. The differences between individual variables were analyzed using one way ANOVA, while the Pearson correlation analysis was used to identify the relationship between the studied variables. To reduce the number of variables of commitment we used the factorial analysis (principal component analysis). In addition, the Kaiser-Meyer-Olkin and Bartlett's tests were used to assess the suitability of using the factor analysis, and to identify nurses' commitment factors. The multivariate regression analysis was used to determine the impact of independent variables on employees' commitment. Furthermore, the proportion of total variation of nurses' commitment was explained with the selected independent variables. A p-value < 0.05 was considered to be statistically significant.

Results

The level of commitment for nursing leaders ($\overline{x}$ = 4.09, s = 0.98) and other nurses ($\overline{x}$ = 3.12, s = 1.02) are at a high-medium level. Nevertheless, there were significant differences (F = 41.588, p < 0.001) between the perception of commitment in nursing by leaders and other employees. With the correlation analysis (Table 1), a strong positive correlation was established between nurses' commitment and job satisfaction (r = 0.509, p < 0.001); interpersonal relationship (r = 0.730, p < 0.001), organizational support (r = 0.838, p < 0.001) and leadership style (r = 0.680, p < 0.001).

In order to establish the overall nurses' commitment, the multiple regression analysis was conducted. The model analysis included five independent variables: job satisfaction, interpersonal relationship, organizational support, level of education, and leadership style.

The linear combination of five independent variables was significantly related to the dependent variable (nurses' commitment), R squared = 0.776, adjusted R Square = 0.779, F = 319.291, p < 0.001.

Table 1: *Pearson correlation coefficient of commitment, job satisfaction, organizational support, interpersonal relationship, leadership style and level of education*
Tabela 1: *Pearsonov korelacijski koeficient pripadnosti in zadovoljstvom pri delu, organizacijsko podporo, medosebnimi odnosi, stilom vodenja ter stopnjo izobrazbe*

	CO	JS	IR	OS	LE	LS
CO Pearson Correlation	1	0.590**	0.733**	0.838**	0.084	0.680**
Sig (2-tailed)	/	<0.001	<0.001	<0.001	0.057	<0.001
JS Pearson Correlation	0.590**	1	0.549**	0.556**	0.036	0.514**
Sig (2-tailed)	<0.001	/	<0.001	<0.001	0.413	<0.001
IR Pearson Correlation	0.733**	0.549**	1	0.687**	0.021	0.793**
Sig (2-tailed)	<0.001	<0.001	/	<0.001	0.644	<0.001
OS Pearson Correlation	0.838**	0.556**	0.687**	1	0.031	0.681**
Sig (2-tailed)	<0.001	<0.001	<0.001	/	0.486	<0.001
LE Pearson Correlation	0.084	0.036	0.021	0.031	1	0.018
Sig (2-tailed)	0.057	0.413	0.644	0.487	/	0.693
LS Pearson Correlation	0.680**	0.514**	0.793**	0.681**	0.018	1
Sig (2-tailed)	<0.001	<0.001	<0.001	<0.001	0.693	/

*Legend/Legenda: * Correlation is significant at the 0.05 level or less/statistična značilnost pri stopnji 0,05 ali manj; ** Correlation is significant at the 0.001 or less/statistična značilnost pri stopnji 0,001 ali manj; CO – Commitment/pripadnost; JS–Job satisfaction/ zadovoljstvo pri delu; IR–Interpersonal relationship/medosebni odnosi; OS – Organizational support/podpora organizacije; LE – Level of education/stopnja izobrazbe; LS – Leadership style/stil vodenja*

Table 2: *Multiple linear regressions for a single set of predictors*
Tabela 2: *Multipla linearna regresijska analiza za posamezne spremenljivke*

Independent variables/ Neodvisne spremenljivke	***B***	**Std. Error**	***β***	***t***	***p***
Job satisfaction	0.086	0.021	0.113	4.114	<0.001
Interpersonal relationship	0.189	0.030	0.244	6.346	<0.001
Organizational support	0.473	0.026	0.586	17.899	<0.001
Level of education	0.003	0.001	0.057	2.623	0.083
Leadership style	0.032	0.042	0.029	0.767	<0.001

Legend/Legenda: B – unstandardized coefficient/nestandardizirani koeficient; Std. Error – standard error/standardna napaka; β – standardized regression coefficient/standardizirani regresijski koeficient; t – t-test value/vrednost t-testa; p – statistically significant at 0.05 or less/statistična značilnost pri 0,05 ali manj

An estimate 78 % of the variance of the nurses' commitment index can be accounted for by the linear combination of predictors: job satisfaction, interpersonal relationship, organizational support, level of education, and leadership style. As indicated in Table 2, four measures as predictors, namely, job satisfaction, interpersonal relationship, organizational support, and leadership style were strongly related to nurses' commitment.

This conclusion is supported by the strength of the bivariate correlation between organizational support and nurses' commitment, which was 0.84, $p < 0.001$, and interpersonal relationship, which was 0.73, $p < 0.001$. The level of education was not a significant predictor of nurses' commitment when it was used with other independent variables. The multiple regression analysis indicated 78 % of the total variance in nurses' commitment which was explained considering the principal independent variables.

Nurses' commitment was assessed by eighteen questions. For the evaluation and examination of the screen chart, only five factors (and all including statements) were taken into the consideration. The value of Kaiser-Meyer-Olkin test statistics was 0.913, which shows a good suitability assessment. Five factors extracted from the principal component analysis explained 66 % of nurses' commitment (Table 3). The first factor explained 27 % of the entire variance, the second factor explained 8 %, the third factor 8 %, the fourth factor 7 %, and the fifth factor 6 %. The first factor refers to the commitment to organization including 5 ranked items. The second factor refers to the commitment to leaders including 4 ranked items. The third factor refers to the commitment to co-

Table 3: *Rotated factor matrix for five factors of nurses' commitment*
Tabela 3: *Rotirana faktorska matrika petih dejavnikov pripadnosti medicinskih sester*

Statements/Stališča	**Factors**				
	CO	**CL**	**CC**	**CJ**	**CV**
I am proud to work in this organization.	0.723	/	/	/	/
I speak positively about the organization.	0.600	/	/	/	/
I wouldn't leave the organization.	0.569	/	/	/	/
Our organization has a good reputation.	0.534	/	/	/	/
Our organization grows on individuals.	0.529	/	/	/	/
Leaders are interested in the growth of employees.	/	0.749	/	/	/
Leaders know that interpersonal trust is necessary.	/	0.743	/	/	/
I respect leaders.	/	0.478	/	/	/
I am always ready to help my leader.	/	0.161	/	/	/
All co-workers can show their abilities.	/	/	0.770	/	/
I am independent and autonomous at work.	/	/	0.700	/	/
I always want to help my co-workers.	/	/	0.607	/	/
I help workers at work.	/	/	0.465	/	/
I believe in successful development.	/	/	/	0.635	/
I think that my work is respectable.	/	/	/	0.514	/
My work is useful and important.	/	/	/	0.287	/
I represent the vision of our organization.	/	/	/	/	0.600
Concern for employees is necessary.	/	/	/	/	0.333

Legend/Legenda: CO – Commitment to organization/pripadnost organizaciji; CL – Commitment to leader/pripadnost vodji; CC – Commitment to co-workers/pripadnost sodelavcem; CJ – Commitment to job/pripadnost delu; CV – Commitment to vision/pripadnost viziji

workers including 4 ranked items. The fourth factor refers to the commitment to job including 3 ranked items. The fifth factor refers to the commitment to vision including 2 ranked items.

Discussion

In spite of a plethora of research on commitment, the studies focused on nurses' commitment in hospitals are scarce, also in Slovenia. The results of the study indicate that the level of nurses' commitment is at a high-median level. However, we also proved that nursing leaders' commitment is statistically significantly higher than that of other nurses.

The results of this study revealed a positive correlation between nurses' commitment, job satisfaction, interpersonal relationship, organizational support and leadership style. Organizational support reflected the strongest correlation, followed by interpersonal relationship, leadership style and job satisfaction. The multiple regression performed in this study indicated that 78 % of the variance of nurses' commitment was accounted for by the linear combination of job satisfaction, organizational support, interpersonal relationship, and leadership style. Similarly, some other studies (Rhodes & Eisenberg, 2002; Kuokkanen, et al., 2003; Makanjee, et al., 2006; Chang & Chang, 2007; Chang, et al., 2007; Cohen, 2007; Al-Hussami, 2008; Markovits, et al., 2008; Al-Husami, et al., 2011) established that organizational support and job satisfaction are important predictors of employees' commitment. The findings of the current study are consistent with those of Wong and Sohal (2000) and Kuvaas (2007) who found that interpersonal relationship affects employees' commitment. In the present study, the level of education was not a significant predictor of nurses' commitment, but many previous studies (Lok & Crawford, 2001; Yoon & Thye, 2002; Casper & Buffardi, 2004; Chen, et al., 2005; Lee, 2005; Lok, et al., 2005; Nogueras, 2005; Al-Hussami, 2008; Al-Hussami, 2009) showed that the level of education affects employees' commitment.

The results of the present study are in agreement with other studies (Lok & Crafford, 2001; Loke, 2001; Avolio, et al., 2004; Pillai & Williams, 2004; Leach, 2005; McColl-Kennedy & Anderson, 2005), which showed that leadership style also influences nurses' commitment. Only committed leaders can care for commitment of other employees. The study also produced results which support previous research by Karsh and colleagues (2005) that the job and organizational factor predict nurses' commitment.

The research established five factors of commitment (organization, leaders, co-workers, job, and vision) extracted from the factor analysis which explain for 78 % of the total variance of nurses' commitment. This corroborates other research findings (Meyer & Herscovitch, 2001; Mihalič, 2008; Musek Lešnik, 2009) which refer to different types of commitment and define the commitment as a multidimensional construct. There are also other variables which determine organizational commitment, but they were not included into the research.

Study limitations

The previously tested questionnaire was redesigned and upgraded in cooperation with Company for education and transformational management and tested prior to its wider distribution. It was composed of multiple choice closed-ended questions which limited the respondents with a list of answer choices from which they were allowed to choose. Distribution of the questionnaire by post presented another disadvantage as no additional information or support to the respondents could be provided when completing the questionnaire.

Conclusion

Whereas employees' commitment is important for the growth and efficacy of every organization it would be reasonable to monitor the nurses' commitment according to different components of commitment. Furthermore, it would be useful to learn which components of commitment are rated lower by nurses in different departments or organizational units. It is recommended that satisfaction and commitment of all employees in hospitals and other healthcare organizations be monitored once a year. Thus, greater efficiency of the organization can be achieved and individuals' expectations can be met.

With the ever changing healthcare system, hospitals will have to recognize that employees' commitment has a profound impact on the overall organizational performance. Employees in nursing are more likely to be committed to an organization when they have appropriate support. For future research, we recommend to replicate this study or conduct a similar one on nurses and other employees in other healthcare organizations in Slovenia. One of the key challenges for every organization is to maintain the commitment of employees and increase their motivation.

Literature

Al-Hussami, M., 2008. A study of nurses' job satisfaction: the relationship to organizational commitment, perceived organizational support, transactional leadership, transformational leadership, and level of education. *European Journal of Scientific Research,* 22(2), pp. 286-295.

Al-Hussami, M., 2009. Predictors of nurses' commitment to health care organizations. *Australian Journal of Advanced Nursing,* 26(4), pp. 36-48.

Al-Hussami, M., Saleh, M.Y., Abdalkader, R.H. & Mahadeen, A.L., 2011. Predictors of nursing faculty members' organizational commitment in governmental universities. *Journal of Nursing Management,* 19(4), pp. 556-566.
http://dx.doi.org/10.1111/j.1365-2834.2010.01148.x
PMid:21569152

Allen, N.J. & Meyer, J.P., 1990. The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology,* 63(1), pp. 1-18.
http://dx.doi.org/10.1111/j.2044-8325.1990.tb00506.x

Allen, N.J., 2003. Examining organizational commitment in China. *Journal of Vocational Behaviou,* 62(3), pp. 511-515.
http://dx.doi.org/10.1016/S0001-8791(02)00065-9

Avolio, B.J., Zhu, W. & Koh, W., 2004. Transformational leadership and organizational commitment: mediating role of psychological empowerment and moderating role of structural distance. *Journal of Organizational Behavior,* 25(8), pp. 951–968.
http://dx.doi.org/10.1002/job.283

Carver, L. & Candela, L., 2008. Attaining organizational commitment across different generations of nurses. *Journal of Nursing Management,* 16(8), pp. 984-891.
http://dx.doi.org/10.1111/j.1365-2834.2008.00911.x
PMid:19094111

Casper, W.J. & Buffardi, L.C., 2004. Work-life benefits and job pursuit intentions: the role of anticipated organizational support. *Journal of Vocational Behavior,* 65(2), pp. 391-410.
http://dx.doi.org/10.1016/j.jvb.2003.09.003

Chang, C.S. & Chang, H.H., 2007. Effects of internal marketing on nurse job satisfaction and organizational commitment: example of medical centers in Southern Taiwan**.** *Journal of Nursing Research*, 15(4), pp. 265-274.
http://dx.doi.org/10.1097/01.JNR.0000387623.02931.a3
PMid:18080971

Chang, H.T., Chi, N.W. & Mio, M.C., 2007. Testing the relationship between three-component organizational/ occupational commitment and organizational/occupational turnover intention using a non-recursive model. *Journal of Vocational Behavior,* 70(2), pp. 352-368.
http://dx.doi.org/10.1016/j.jvb.2006.10.001

Chen, Z.X. & Francesco, A.M., 2003. The relationship between the three components of commitment and employee performance in China. *Journal of Vocational Behavior,* 62(3), pp. 490-510.
http://dx.doi.org/10.1016/S0001-8791(02)00064-7

Chen, Z.X., Aryee, S. & Lee, C., 2005. Test of a mediation model of perceived organizational support. *Journal of Vocational Behavior,* 66(3), pp. 457-470.
http://dx.doi.org/10.1016/j.jvb.2004.01.001

Cohen, A., 2007. Commitment before and after: an evaluation and reconceptualization of organizational commitment. *Human Resources Management Review,* 17(3), pp. 336-354.
http://dx.doi.org/10.1016/j.hrmr.2007.05.001

Güleryüz, G., Güney, S., Aydin, E.M. & Aşan, Ö., 2008. The mediating effect of job satisfaction between emotional intelligence and organizational commitment of nurses: a questionnaire survey. *International Journal of Nursing Studies,* 45(11), pp. 1625–1635.
http://dx.doi.org/10.1016/j.ijnurstu.2008.02.004
PMid:18394625

Ingersoll, G.L., Olsan, T., Drew-Cates, J., DeVinney, B. & Davies, J., 2002. Nurses' job satisfaction, organizational commitment and career intent. *Journal of Nursing Administration,* 32(5), pp. 250-263.
http://dx.doi.org/10.1097/00005110-200205000-00005
PMid:12021566

Karsh, B., Booske, B. C. & Sainfor, F., 2005. Job and organizational determinants of nursing home employee commitment, job satisfaction and intent to turnover. *Ergonomics,* 48(10), *pp.* 1260-1281.
http://dx.doi.org/10.1080/00140130500197195
PMid:16253944

Kuokkanen, L., Lieno-Kilpi, H. & Katajisto, J., 2003. Nurse empowerment, job-related satisfaction and organizational commitment. *Journal of Nursing Care Quality,* 18(3), pp. 184-192.
http://dx.doi.org/10.1097/00001786-200307000-00004
PMid:12856902

Kuvaas, B., 2007. An exploration of how the employee–organization relationship affects the linkage between perception of developmental human resource practices and employee outcomes. *Journal of Management Studies,* 45(1), pp. 1-25.

Leach, L.S., 2005. Nurse executive transformational leadership and organizational commitment. *Journal of Nursing Administration,* 35(5), pp. 228–237.
http://dx.doi.org/10.1097/00005110-200505000-00006
PMid:15891486

Lee, C.H., 2005. A study of underemployment among self-initiated expatriates. *Journal of World Business,* 40(2), pp. 172-187.
http://dx.doi.org/10.1016/j.jwb.2005.02.005

Lok, P. & Crawford, J., 2001. Antecedents of organizational commitment and the mediating role of job satisfaction. *Journal of Managerial Psychology,* 16(7/8), pp. 594-614.
http://dx.doi.org/10.1108/EUM0000000006302

Lok, P. & Crawford, J., 2004. The effect of organisational culture and leadership style on job satisfaction and organisational commitment: a cross-national comparison. *Journal of Management Development,* 23(4), pp. 321–338. http://dx.doi.org/10.1108/02621710410529785

Lok, P., Westwood, R. & Crawford, J., 2005. Perceptions of organisational subculture and their significance for organisational commitment. *Applied Psychology,* 54(4), pp. 490–514. http://dx.doi.org/10.1111/j.1464-0597.2005.00222.x

Loke, J.C., 2001. Leadership behaviours: effects on job satisfaction, productivity and organizational commitment. *Journal of Nursing Management*, 9(4), pp. 191-204. http://dx.doi.org/10.1046/j.1365-2834.2001.00231.x

Lu, K.Y., Chang, L.C. & Wu, H.L., 2007. Relationships between professional commitment, job satisfaction, and work stress in public health nurses in Taiwan. *Journal of Professional Nursing,* 23(2), pp. 110–116. http://dx.doi.org/10.1016/j.profnurs.2006.06.005 PMid:17383604

Makanjee, C., Hartzer, Y.F. & Uys, I.L., 2006. The effect of perceived organizational support on organizational commitment of diagnostic imaging radiographers. *Radiography,* 12(2), pp. 118-126. http://dx.doi.org/10.1016/j.radi.2005.04.005

Markovits, Y., Ullrich, J., Dick, R. & Davis, A.J., 2008. Regulatory foci and organizational commitment. *Journal of Vocational Behavior,* 73(3), pp. 485–489. http://dx.doi.org/10.1016/j.jvb.2008.09.004

McColl-Kennedy, J.R. & Anderson, R.D., 2005. Subordinate-manager gender combination and perceived leadership style influence on emotions, self-esteem and organizational commitment. *Journal of Business Research,* 58(2), pp. 115-124. http://dx.doi.org/10.1016/S0148-2963(03)00112-7

McNeese-Smith, D.K., 2001. A nursing shortage: building organizational commitment among nurses. *Journal of Healthcare Management,* 46(3), pp. 173-186. PMid:11372220

Meyer, J.P. & Herscovitch, L., 2001. Commitment in the workplace: toward a general model. *Human Resource Management Review,* 11(3), pp. 299-326. http://dx.doi.org/10.1016/S1053-4822(00)00053-X

Mihalič, R., 2008. *Povečajmo zadovoljstvo in pripadnost zaposlenih*. Škofja Loka: Mihalič & Partner.

Musek Lešnik, K., 2006. *Zadovoljstvo zaposlenih pri delu (z delom) in potrošniki.* Available at: http://www.ipsos.si/web-data/Templates/podjetje-zaposleni-zadovoljstvoprideluinpotrosniki.html [15. 3. 2014].

Nogueras, D.J., 2006. Occupational commitment, education, and experience as a predictor of intent to leave the nursing profession. *Nursing Economics,* 24(2), pp. 86–93. PMid:16676751

Pillai, R. & Williams, E.A., 2004. Transformational leadership, self-efficacy, group cohesiveness, commitment and performance. *Journal of Organizational Change Management,* 17(2), pp. 144-159. http://dx.doi.org/10.1108/09534810410530584

Powell, D.M. & Meyer, J.P., 2004. Side-bet theory and the three-component model of organizational commitment. *Journal of Vocational Behavior,* 65(1), pp. 157-177. http://dx.doi.org/10.1016/S0001-8791(03)00050-2

Redfern, S., Hannan, S., Norman, I. & Martin, F., 2002. Work satisfaction, stress, quality of care and morale of older people in a nursing home. *Health and Social Care in the Community,* 10(6), pp. 512-517. http://dx.doi.org/10.1046/j.1365-2524.2002.00396.x PMid:12485139

Rhodes, L. & Eisenberg, R., 2002. Perceived organizational support: a review of the literature. *Journal of Applied Psychology,* 87(4), pp. 698-714. http://dx.doi.org/10.1037/0021-9010.87.4.698

Trdić, J., Moravec Berger, D., Pribaković Brinovec, R., eds., 2010. *Zdravstveni statistični letopis: Slovenija 2008* [CD-ROM]. Ljubljana: Inštitut za varovanje zdravja Republike Slovenije.

Vandenberghe, C., 2003. Application of the three-component model to China: issues and perspectives. *Journal of Vocational Behavior,* 62(3), pp. 516-523. http://dx.doi.org/10.1016/S0001-8791(02)00066-0

Varona, F., 2002. Conceptualization and management of communication satisfaction and organizational commitment in three Guatemalan organizations. *American Communication Journal,* 5(3). Available at: http://ac-journal.org/journal/vol5/iss3/articles/concept.htm [28. 2. 2014].

Wong, A. & Sohal, A., 2002. An examination of the relationship between trust, commitment and relationship quality. *International Journal of Retail & Distribution,* 30(1), pp. 34-50. http://dx.doi.org/10.1108/09590550210415248

Wu, L. & Norman, I., 2006. An investigation of job satisfaction, organizational commitment and role conflict and ambiguity in a sample of Chinese undergraduate nursing students. *Nurse Education Today,* 26(4), pp. 304-314. http://dx.doi.org/10.1016/j.nedt.2005.10.011 PMid:16338032

Yang, F.H. & Chang, C.C., 2008. Emotional labour, job satisfaction and organizational commitment amongst clinical nurses: a questionnaire survey. *International Journal of Nursing Studies,* 45(6), pp. 879–887.
http://dx.doi.org/10.1016/j.ijnurstu.2007.02.001
PMid:17391673

Yoon, J. & Thye, S., 2002. A dual process model of organizational commitment: job satisfaction and organizational support. *Work and Occupations,* 29(1), pp. 97-124.
http://dx.doi.org/10.1177/0730888402029001005

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Izvirni znanstveni članek/Original scientific article

Samozaupanje medicinskih sester in zdravnikov pri praktičnem izvajanju paliativne oskrbe

Self-confidence of registered nurses and physicians in the delivery of palliative care

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Ključne besede: znanje; paliativna oskrba; komunikacija; odzivi; presečna raziskava

Key words: knowledge; palliative care; communication; responses; cross-sectional research

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IZVLEČEK

Uvod: Zdravstveni delavci so v paliativni oskrbi soočeni s številnimi zapletenimi in neprijetnimi situacijami, ko je potrebno bolnikom lajšati bolečine, jim na različne načine pomagati in hkrati tolažiti družino. Namen raziskave je bil ugotoviti, kako zdravstveni delavci ocenjujejo svoje znanje in stopnjo samozaupanja pri izvajanju paliativne oskrbe.

Metode: Izvedena je bila neeksperimentalna kvantitativna raziskava, v katero so bili vključeni zdravstveni delavci primarnega in sekundarnega nivoja zdravstvene dejavnosti Koroške regije (n = 100). Vzorčenje je bilo namensko nenaključno. S strukturiranim vprašalnikom pridobljeni podatki so bili statistično analizirani s programom SPSS ver. 20.0. Sklopa vprašanj, ki sta se nanašala na izvajanje paliativne oskrbe, sta pokazala dobro mersko zanesljivost instrumenta (Cronbach α = 0,781 in 0,914).

Rezultati: Medicinske sestre in zdravniki so znanje in izkušnje v paliativni oskrbi v največji meri pridobivali v klinični praksi (50 %), svoje znanje so pretežno ocenili le kot zadovoljivo (53 %). Lasten odziv na zdravstvene težave oziroma na svetovanje in komunikacijo z bolnikom so medicinske sestre in zdravniki ocenili s povprečno oceno 2,7 do 3,2, kar pomeni, da pretežno zmorejo situacije pri praktičnem izvajanju paliativne oskrbe rešiti samostojno. Medicinske sestre in zdravniki na primarnem nivoju zdravstvene dejavnosti so navedli večjo stopnjo samozaupanja glede svetovanja o možnostih izbire kraja paliativne oskrbe.

Diskusija in zaključek: Ugotovitve kažejo, da medicinske sestre in zdravniki vprašanj bolnikov o procesu umiranja in njihovih želja niso ocenili kot posebej neprijetnih. Bodoče raziskave bi lahko nadaljevale v tej smeri in ugotavljale, katere situacije zdravstvenemu osebju predstavljajo največje breme in kako se z njimi soočiti.

ABSTRACT

Introduction: Health care professionals are confronted with several difficult and unpleasant situations in palliative care where they are expected to relieve pain, provide various services to patients and offer support to family members. The aim of this study was to evaluate self-confidence of health care staff in the delivery of palliative care.

Methods: A non-experimental quantitative research included registered nurses and physicians from the primary and secondary health care from Carinthia region in the northern Slovenia (n = 100). A purposive non-random sampling was applied. Data gathered by structured questionnaire was statistically analysed by SPSS ver. 20.0. The reliability of the instrument measuring two domains of palliative care was appropriate (Cronbach's α = 0.781 and 0.914).

Results: Health care professionals gained experience in palliative care mainly during clinical practice (50.0 %) and evaluated their knowledge as only satisfactory (53.0 %). Their ability to adequately respond to health care problems, to advise and communicate with patients was assessed in mean values from 2.7 to 3.2., which leads to a conclusion that most of the care providers were able to solve palliative care problems autonomously. Primary health care professionals were more confident in discussing the choice of palliative care environment with patients and family members.

Discussion and conclusion: The health care professionals did not feel particularly disturbed or embarrassed when confronted with the patients' end-of-life questions. Future research should focus on specific distressing situations in palliative care and provide guidelines for management of advanced illness.

V članku je uporabljen del podatkov, obravnavanih v okviru magistrskega dela avtorice Petre Kamnik *Stališča in znanja zdravstvenih delavcev o paliativni oskrbi* (2014).

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Uvod

Literatura navaja, da je paliativna oskrba povezana s številnimi zapletenimi situacijami, ko je potrebno lajšati bolečine, zaradi nastalih zapletov premeščati bolnike z ene lokacije na drugo in hkrati tolažiti družino (Pautex, et al., 2013; Van der Plas, et al., 2013). Svetovna zdravstvena organizacija (World Health Organization, 2004) je paliativno oskrbo definirala kot pristop za izboljšanje kakovosti življenja bolnika in njegove družine, ki se spopada z neozdravljivo boleznijo, in sicer v obliki preprečevanja in lajšanja trpljenja na podlagi zgodnjega prepoznavanja in ocenjevanja bolečine, načrtovanja terapije za obravnavo bolečine in drugih fizičnih, psihosocialnih in spiritualnih težav. Paliativna oskrba se v Evropski uniji (EU) loči na dva nivoja: na splošno oskrbo, ki naj se nudi znotraj primarnega nivoja zdravstvene dejavnosti, in na specialistično v okviru sekundarnega nivoja zdravstvene dejavnosti (The European Association for Palliative Care, 2014). Posamezni tuji avtorji so postavili kriterije oziroma vključitvene postopke za specialistično paliativno oskrbo kroničnih bolnikov (Johnson & Houghton, 2006; Selman, et al., 2007), kot je posvet o specifičnih problemih, sledi lahko celostna paliativna oskrba, ko nastopajo kompleksne psihofizične težave, in nazadnje terminalna oskrba, ko je potrebna hitra kontrola vseh simptomov.

Organizacija paliativne oskrbe v EU je v veliki meri odvisna od tradicije, ali bolniki zaključujejo svojo življenjsko pot doma ali v bolnišnici (The European Association for Palliative Care, 2014). Predvsem severozahodne države EU vlagajo veliko truda v organizacijo paliativne oskrbe, k le-tem bi lahko prišteli še Poljsko in Španijo, kjer ljudje v večji meri (okoli 50 %) umirajo na svojem domu. V Veliki Britaniji ima oziroma želi imeti glavno vlogo v paliativni oskrbi primarni nivo zdravstvene dejavnosti, ki se pri delu opira na paliativni zdravstveni tim in specialiste iz bolnišnic. Vendar Hanratty in sodelavci (2002) v svoji raziskavi ugotavljajo, da je sodelovanje pogosto zapleteno in da bolniki trpijo, ker jih preveč premeščajo iz domačega okolja v bolnišnico in obratno. Razmere so organizacijsko nedorečene, saj so specialisti neradi vključeni v paliativno oskrbo, čeprav hkrati ocenjujejo, da primarni nivo zdravstvene dejavnosti ne more ponuditi ustrezne kakovostne oskrbe. Z vidika zdravnika specialista se kristalizira miselni vzorec, da prehod bolnika v paliativno oskrbo pomeni nekakšen poraz klasične medicine (von Gunten, 2002).

Bolniki umirajo doma, v domovih starejših občanov in v bolnišnicah, zato morajo imeti zdravniki in negovalno osebje na vseh nivojih zdravstvene dejavnosti potrebno znanje, da lahko bolniku pomagajo in hkrati odgovarjajo na neprijetna vprašanja bolnika in družine. Istočasno mora zdravstveno osebje oceniti, koliko informacij o lastnem zdravstvenem stanju bolnik sploh želi imeti in kako komunicirati z družino (Wittenberg-Lyles, et al., 2008). Naslednji problem predstavljajo tudi okoliščine, ko se bolnik v paliativni oskrbi srečuje s številnim zdravstvenim osebjem in mu vsak izmed njih podaja drugačne informacije (Han & Arnold, 2005). Percepcija številnih zdravstvenih delavcev je tudi, da se o nastali situaciji z bolnikom ne pogovarjajo veliko, ampak se omejijo le na razlago terapije, kaj se lahko od terapije pričakuje in kakšni so možni njeni negativni učinki (Wittenberg-Lyles, et al., 2008). Prav tako imajo zdravstveni delavci različno težnjo do komunikacije. V tuji literaturi je bilo ugotovljeno, da se posebej zdravniki specialisti neradi izobražujejo s področja komunikacije, ker ne vidijo, kako bi le-ta doprinesla k njihovi strokovnosti pri delu (Turner, et al., 2011). Nasprotno imajo medicinske sestre veliko večje zanimanje, saj bolniki in svojci v želji pridobiti bolj podrobne informacije skušajo kontaktirati z njimi (Johnston & Smith, 2006).

Skela-Savič (2005) je predstavila korake celovite paliativne oskrbe in aktivnosti za postopno doseganje cilja uvedbe paliativne oskrbe v prakso. Izpostavlja izdelavo kompetenc posameznih poklicnih skupin v timu paliativne oskrbe, priporoča več raziskovanja za ugotavljanje potreb, izdelavo projektov za povezovanje znanja v kakovostnejši palitivni oskrbi, imenovanje timov in ustanovitev oddelkov za paliativno obravnavo. Kot najpomembnejše izpostavlja učinkovito komunikacijo in ustrezno izobražene ter usposobljene medicinske sestre oz. multidisciplinarni paliativni tim. Temeljna vloga medicinske sestre je, da bolniku posreduje pomen paliativne oskrbe; pristop mora temeljiti na medsebojnem zaupanju in vlivanju moči oziroma vzpodbujanju, da terapija dosega rezultate in lajša bolečine (Mok & Chiu, 2004). V Sloveniji paliativno oskrbo načrtuje zdravnik družinske medicine (primarni nivo zdravstvene dejavnosti), ki predpisuje sredstva za lajšanje bolečin in ostalo terapijo, ki jo bolnik potrebuje. Po potrebi obišče bolnika na domu, kjer tudi oceni, ali bolnik potrebuje medicinsko-tehnične pripomočke in pomoč pri zdravstveni negi, ter vključi patronažno medicinsko sestro ali laično pomoč na domu, ki jo nudijo člani neprofitnega, humanitarnega društva Hospic. Kadar bolnikovih težav na domu ni mogoče več obvladovati, je potrebno bolnika napotiti bodisi k usmerjenemu specialistu ali v bolnišnico (Mazej, et al., 2008).

Namen in cilji

Namen in cilj raziskave je bil s pomočjo samoevalvacijskega vprašalnika ugotoviti stopnjo samozaupanja medicinskih sester in zdravnikov pri odzivu na različne situacije in pri komunikaciji v paliativni oskrbi na primarnem in sekundarnem nivoju zdravstvene dejavnosti.

Osrednje raziskovalno vprašanje je bilo: Kako medicinske sestre in zdravniki ocenjujejo svoje znanje in občutke pri odzivu na različne situacije v paliativni oskrbi?

Metode

Izvedena je bila neeksperimentalna kvantitativna raziskava, v katero so bile vključene medicinske sestre in zdravniki primarnega in sekundarnega nivoja zdravstvene dejavnosti Koroške regije.

Opis instrumenta

Tehnika zbiranja podatkov je bilo anketiranje. Kot instrument raziskovanja smo uporabili sklop vprašanj, ki se nanašajo na stopnjo samozaupanja v klinični praksi in so del vprašalnika za izvajalce paliativne oskrbe (angl. *Evaluation tool 2.1 for palliative care providers*) (Eagar, et al., 2003). Vprašanja so bila zapisana zelo jedrnato, zato je vprašalnik iz angleškega v slovenski jezik prevedel učitelj angleškega jezika na Fakulteti za zdravstvene vede Univerze v Mariboru. Vprašanja so bila zaprtega tipa. Stališča v povezavi s stopnjo samozaupanja v klinični praksi (komunikacija, ukrepi) so bila merjena s štiristopenjsko Likertovo lestvico; najnižja možna ocena, tj. 1, je pomenila *potrebujem osnovna navodila*, najvišja možna ocena, tj. 4, pa *zmorem samostojno*.

Vprašalnik je bil sestavljen iz treh vsebinskih sklopov vprašanj. V prvem sklopu so bili zajeti osnovni demografski podatki z delovnim mestom. V drugem sklopu so anketiranci ocenili svoje znanje iz paliativne oskrbe, navedli, kako so pridobili znanje iz paliativne oskrbe, navedli občutke pri soočanju s paliativno oskrbo in ocenili potrebo po organizirani paliativni oskrbi (4 vprašanja, Cronbach α = 0,781). V tretjem sklopu so anketiranci ocenjevali svojo stopnjo samozaupanja v klinični praksi (pri odzivih na razne situacije in pri komunikaciji z bolnikom in družino) (12 vprašanj, Cronbach α = 0,914).

Opis vzorca

Vzorčenje je bilo namensko, nenaključno. Razdeljenih je bilo 130 vprašalnikov, od tega jih je bilo vrnjenih 100. Odzivnost je znašala 76,9 %. Raziskava je zajemala medicinske sestre in zdravnike iz petih največjih javnih zavodov primarnega in sekundarnega nivoja zdravstvene dejavnosti Koroške regije. Glede na podatke Nacionalnega inštituta za javno zdravje (2014) v Koroški regiji deluje skupaj 399 zdravnikov in medicinskih sester, kar pomeni, da je raziskava zajemala približno četrtino medicinskih sester in zdravnikov. Koroška regija ima po statističnih podatkih med letom 2000 in 2010 80% rast incidence malignih obolenj, kar je daleč največ med slovenskimi regijami (Zadnik, et al., 2013).

V raziskavi so sodelovale pretežno medicinske sestre in zdravnice (88 %). Iz primarnega nivoja zdravstvene dejavnosti je sodelovalo 58 %, iz sekundarnega pa 42 % medicinskih sester in zdravnikov. Glede na izobrazbo je bilo 55 % medicinskih sester in 45 % zdravnikov, starosti med 21 in 70 let, v povprečju 42,8 let s standardnim odklonom 11,7 let. Podroben opis vzorca je prikazan v Tabeli 1.

Tabela 1: *Opis vzorca*
Table 1: *Sample description*

Demografske značilnosti/Demographic characteristics	***n***	**%**
Spol		
moški	12	12,0
ženski	88	88,0
Delovno mesto		
zdravnik v ambulanti družinske medicine (primarni nivo)	28	28,0
medicinska sestra v patronažnem varstvu (primarni nivo)	30	30,0
zdravnik specialist v splošni bolnišnici (sekundarni nivo)	17	17,0
medicinska sestra v splošni bolnišnici (sekundarni nivo)	25	25,0

Legenda/Legend: n – število/number; % – odstotek/percentage

Opis poteka raziskave in obdelave podatkov

Pred pričetkom izvedbe raziskave smo pridobili pisno soglasje sodelujočih zavodov, splošne bolnišnice in regijskih zdravstvenih domov. Anketiranci so bile medicinske sestre in zdravniki v javnem zdravstvu. Vprašalnik ni zajemal nobenih spornih osebnih vprašanj, zato dovoljenja etične komisije nismo potrebovali. Raziskava je bila izvedena skladno z etičnimi standardi, ki jih predpisuje Helsinška deklaracija. Sodelovanje v raziskavi je bilo prostovoljno in anonimno, vsak sodelujoči v raziskavi je bil seznanjen z vsebino raziskovanja ter možnostjo odklonitve sodelovanja. Vprašalniki so bili sodelujočim zavodom poslani po pošti. Anketiranci so jih lahko prevzeli v tajništvu zavoda. Izpolnjene vprašalnike so nato oddali v zbirno škatlo, ki se je prav tako nahajala v tajništvu zavoda. Zbrani vprašalniki so bili raziskovalcem vrnjeni po pošti. Prejete odgovore na vprašanja smo vnesli v elektronsko bazo podatkov.

Statistična analiza je zajemala opisno statistiko ter primerjavo med medicinskimi sestrami in zdravniki, zaposlenimi na primarnem in sekundarnem nivoju zdravstvene dejavnosti. Primerjava je bila izračunana s testom χ^2 ali *t*-testom za neodvisne vzorce. Statistična analiza je bila opravljena s programom SPSS verzija 20.0 (IBM Corp., Armonk, NY). Mejo statistične pomembnosti je določala vrednost $p < 0,05$.

Rezultati

Medicinske sestre in zdravniki so svoje znanje s področja paliativne oskrbe pretežno ocenili kot zadovoljivo (53 %); višji oceni, dobro in zelo dobro, sta bili navedeni le v 26 %. V največji meri so medicinske sestre in zdravniki navedli, da so znanje pridobili le v praksi (50 %), v 38 % pa tudi s podiplomskim izobraževanjem, kratkimi tečaji in seminarji. Izvajanje paliativne oskrbe je v bilo največji meri povezano z neprijetnimi občutki (45 %) in trpljenjem (14 %), 41 % anketiranih pa tovrstnih težav ni navedlo. Organizirana paliativna oskrba je bila izražena kot zelo potrebna (42 %) oziroma potrebna (57 %). Primerjava deležev med medicinskimi sestrami in zdravniki na primarnem in sekundarnem nivoju zdravstvene dejavnosti ni pokazala statistično pomembnih razlik. Podrobni rezultati so prikazani v Tabeli 2.

V klinični praksi paliativne oskrbe in v interakciji z bolnikom in družino so medicinske sestre in zdravniki dokaj konstantno ocenjevali svoje sposobnosti v različnih situacijah. Rezultati v Tabeli 3 prikazujejo, da so medicinske sestre in zdravniki vse obravnavne situacije ocenili s povprečnimi ocenami med 2,7 in 3,2, kar pomeni, da jim nobena situacija v povprečju ne povzroča težav, a hkrati ni situacije, ki bi jo lahko v klinični praksi zmeraj rešili samostojno. Še najmanj težav so v povprečju navedli pri odzivu na bolnikovo poročanje o težkem odvajanju oz. zaprtju ($\bar{x} = 3,2$), kjer je bila v edinem primeru najpogosteje navedena ocena 4 (46 %), tj. *zmorem samostojno*. Večje težave pri odzivu so medicinske sestre in zdravniki navedli pri obravnavi delirija (zmedenosti) in dispneji (težki sapi) ob koncu življenja. Najmanjša povprečna stopnja samozaupanja je bila navedena pri obveščanju bolnikov in družine o oblikah pomoči, ki so na voljo v okviru paliativne oskrbe ($\bar{x} = 2,7$). Primerjava povprečnih ocen praktičnega izvajanja paliativne oskrbe med medicinskimi sestrami in zdravniki, zaposlenimi na primarnem in sekundarnem nivoju zdravstvene dejavnosti, je pokazala, da so medicinske sestre in zdravniki na primarnem nivoju zdravstvene dejavnosti navedli statistično pomembno višjo stopnjo samozaupanja pri pogovoru o možnostih izbire kraja oskrbe za bolnike ($t = 2,102$, $p = 0,038$).

Tabela 2: *Samoevalvacija znanja, usposabljanje in soočanje s paliativno oskrbo, potreba po organizirani paliativni oskrbi*
Table 2: *Self-evaluation of knowledge, training and palliative care perception, need for organised palliative care*

Splošno o paliativni oskrbi/ Paliative care in general	**Vsi/All *n* = 100**		**PZV *n* = 58**		**SZV *n* = 42**		χ^2	*p*
	n	**%**	***n***	**%**	***n***	**%**		
Samoevalvacija znanja o paliativni oskrbi							6,203	0,102
zelo dobro	3	3,0	3	5,2	0	0,0		
dobro	23	23,0	15	25,9	8	19,0		
zadovoljivo	53	53,0	32	55,2	21	50,0		
slabo	21	21,0	8	13,8	13	31,0		
Pridobivanje znanja o paliativni oskrbi							4,930	0,177
znanja iz paliativne oskrbe, pridobljena v času študija	9	9,0	7	12,1	2	4,8		
kratki tečaji oziroma seminarji iz paliativne oskrbe	29	29,0	20	34,5	9	21,4		
znanje, pridobljeno le s prakso	50	50,0	26	44,8	24	57,1		
brez usposabljanja oz. nimam znanja	12	12,0	5	8,6	7	16,7		
Občutki pri paliativni oskrbi							0,342	0,843
zelo trpim	14	14,0	9	15,5	5	11,9		
neprijetno mi je	45	45,0	25	43,1	20	47,6		
nimam težav	41	41,0	24	41,4	17	40,5		
Potreba po organizirani paliativni oskrbi							1,457	0,483
zelo pogrešam	42	42,0	24	41,4	18	42,9		
pogrešam	57	57,0	34	58,6	23	54,8		
ne pogrešam	1	1,0	0	0,0	1	2,4		

Legenda/Legend: PZV – primarni nivo zdravstvene dejavnosti/primary health care; SZV – sekundarni nivo zdravstvene dejavnosti/ secondary health care; χ^2 – test hi-kvadrat/chi-square test; p – statistična značilnost/statistical significance; n – število/number; % – odstotek/percentage

Tabela 3: *Samoevalvacija o stopnji samozaupanja pri praktičnem izvajanju paliativne oskrbe*
Table 3: *Self-evaluation of self-confidence level in palliative care clinical practice*

Dejavniki pri praktičnem izvajanju paliativne oskrbe/ Factors in the delivery of paliative care	**Vsi/All *n* = 100**				**PZV *n* = 58**		**SZV *n* = 42**		***t***	***p***
	$\bar{x}$	***s***	**modus**	**%**	$\bar{x}$	***s***	$\bar{x}$	***s***		
Odgovarjanje na bolnikova vprašanja o procesu umiranja	2,8	1,0	3	41,0	2,8	0,9	2,8	1,0	0,249	0,804
Pomoč bolniku ali svojcu, ko je vznemirjen	3,0	0,9	3	38,0	3,0	0,9	3,0	0,9	0,233	0,816
Obveščanje ljudi o oblikah pomoči, ki so na voljo	2,7	1,0	3	42,0	2,8	0,9	2,5	1,0	1,251	0,214
Pogovor o možnostih izbire kraja oskrbe (npr. bolnišnica, dom starejših občanov, družina, hospic)	2,8	0,9	3	39,0	3,0	0,9	2,6	0,9	2,102	0,038
Pogovor o željah bolnika za čas po njegovi smrti	2,8	1,0	3	38,0	2,9	1,0	2,6	1,0	1,207	0,230
Odgovarjanje na vprašanja o učinkih določenih zdravil	3,0	0,9	3	35,0	2,9	0,9	3,0	0,9	–0,364	0,717
Odziv na bolnikovo poročanje o bolečinah	3,1	0,8	3	47,0	3,1	0,9	3,0	0,7	0,127	0,899
Odziv na in obravnava delirija (zmedenost) ob koncu življenja	2,7	0,9	3	41,0	2,6	1,0	2,9	0,9	–1,567	0,120
Odziv na in obravnava dispneje (težka sapa) ob koncu življenja	2,8	1,0	3	31,0	2,7	1,1	2,9	0,9	–0,958	0,340
Odziv na in obravnava slabosti/bruhanja	3,1	0,8	3	43,0	3,1	0,8	3,1	0,8	–0,257	0,798
Odziv na in obravnava bolnikovega poročanja o zaprtju	3,2	0,9	4	46,0	3,2	0,9	3,2	0,9	0,291	0,772
Odziv na in obravnava bolnikove omejene zmožnosti odločanja	2,9	0,9	3	44,0	2,9	1,0	3,0	0,9	–0,295	0,768

Legenda/Legend: $\bar{x}$ – povprečna vrednost/mean value; s – standardni odklon/standard deviation; modus – najpogostejša navedba/ most frequent value; t – t-test za neodvisne vzorce/t-test for independent samples; p – statistična značilnost/statistical significance; % – odstotek/percentage

Razprava

Medicinskim sestram in zdravnikom smo postavili dvanajst vprašanj o njihovi zmožnosti odziva v povezavi s fizično paliativno oskrbo, svetovanjem in tolažbo. Anketirani vprašanj o procesu umiranja in bolnikovih željah za čas po njihovi smrti niso ocenili kot posebej neprijetnih. Kljub temu so medicinske sestre in zdravniki izrazili nekoliko večjo stopnjo samozaupanja pri določenih strokovnih fizičnih problemih, npr. v povezavi z odzivom na slabost/ bruhanje ali zaprtje in z razumevanjem učinkov zdravil. V avstralski raziskavi so z istim vprašalnikom zajeli le medicinske sestre, ki so, tudi v skladu z našimi rezultati, navedle manj težav pri fizični oskrbi in več težav pri komunikaciji ob koncu življenja (Phillips, et al., 2011). Nedvomno so tovrstna vprašanja in komunikacija za zdravstveno osebje neprijetna, saj je v prvi meri naloga zdravstvenega osebja, da zdravi in lajša bolečine, skratka pomaga ljudem ozdraveti, kar je tudi glavna usmeritev trenutnega izobraževanja tako v zdravstveni negi kot medicini. Paliativna oskrba pa nedvomno vsebuje elemente dela, ki odstopajo od tradicionalnih izobraževalnih usmeritev (Dobrina, et al., 2014).

Paliativna oskrba se izvaja na primarnem in sekundarnem nivoju zdravstvene dejavnosti, zato smo stopnjo samozaupanja v klinični praksi paliativne oskrbe primerjali tudi med tema dvema nivojema. Statistično pomembna razlika se je pokazala le pri pogovoru o možnostih izbire kraja oskrbe, kjer so medicinske sestre in zdravniki s primarnega nivoja zdravstvene dejavnosti navedli večjo stopnjo samozaupanja. Rezultat je v bistvu pričakovan, saj se svojci ali bolniki o možnostih oskrbe primarno pogovarjajo z zdravnikom družinske medicine ali patronažno medicinsko sestro (Gallagher, 2013). Svojci in bolniki v bistvu pričakujejo, da jim bo zdravstveno osebje primarnega nivoja zdravstvene dejavnosti lahko najbolj strokovno svetovalo in tudi organiziralo vse potrebne storitve paliativne oskrbe, ki bodo omogočile, da bodo bolniki dostojanstveno zaključili življenjsko pot v lastnem domu (DeMiglio & Williams, 2012).

Možnosti izobraževanja iz paliativne oskrbe so žal precej omejene. V Združenih državah Amerike so razvili izobraževalni program za medicinske sestre, ki temelji na devetih centralnih področjih. Med njimi so tako strokovne vsebine, kot na primer načrtovanje paliativne zdravstvene oskrbe, lajšanje in obvladovanje

bolečine, simptomov ipd., ter tudi vsebine, ki se dotikajo pristopa do bolnika ali družine v smislu etike, sočustvovanja in priprave na izgubo (Ferrell, et al., 2010). Izobraževalni program se lahko prilagodi tudi na nivo seminarjev in ga je možno do neke mere etnološko prilagoditi. Tudi sicer so izobraževanja v obliki kratkih tedenskih tečajev številnejša, so bolj instrumentalna in se nanašajo izključno na paliativno oskrbo v smislu izvajanja negovalnih intervencij (Hayes, et al., 2005; Janssen, et al., 2010). V Evropi najbolj izstopa Velika Britanija z natančno opredeljenimi smernicami paliativne oskrbe, paliativna medicina je tam priznana tudi kot zdravniška specializacija, ki ji je dodano posebno šolanje, podiplomski študij iz paliativne oskrbe pa imajo tudi medicinske sestre (Hillier & Wee, 2001).

V presečni študiji kliničnih potreb Skela-Savič (2005) izpostavlja dejstvo, da so paliativna medicina, paliativna zdravstvena nega in paliativna oskrba četrto strokovno področje onkologije, ki ga je potrebno prepoznati, raziskovati in razvijati. Nujno je podiplomsko izobraževanje zdravnikov in medicinskih sester. Le na ta način bomo to pomembno področje, ki je ogledalo vsake razvite družbe, integrirali v delo zdravstvenih zavodov na vseh ravneh zdravstva in širše družbene skupnosti. Iz obsežnih podatkov nacionalne raziskave na vseh ravneh zdravstvene dejavnosti in socialnovarstvenih institucij Peternelj in Simonič (2009) ugotavljata, da so izkušnje, znanje in predstave zdravstvenih delavcev o paliativni oskrbi pri skoraj polovici anketiranih ocenjene kot pomanjkljive. Anketiranci čutijo tudi potrebo po znanju etike v času umiranja in prepoznavanju duševnih stisk ter duhovnih potreb. Dve tretjini anketiranih nista bili deležni formalnega izobraževanja iz paliativne oskrbe. Mimić in sodelavci (2013) navajajo, da imajo medicinske sestre, ki delajo v paliativni oskrbi, z izkušnjami in vseživljenjskim izobraževanjem s področja oskrbe neozdravljivo bolnih pridobljenega že veliko znanja, čeprav se o tem predhodno niso formalno izobraževale. Posebni cilj paliativne oskrbe naj bo tudi umiranje z dostojanstvom. Krčevski Škvarč in sodelavci (2010) priporočajo, da bolnika, ki potrebuje paliativno oskrbo in vanjo privoli, obravnava tim paliativne oskrbe in/ali tim specialistične paliativne oskrbe. Paliativna oskrba posameznika mora predstavljati celoto, v kateri so vsi segmenti oskrbe med seboj povezani in usklajeni. Avtorji še dodajajo, da se v Sloveniji osnovna paliativna oskrba izvaja na vseh ravneh zdravstvenega in socialnovarstvenega sistema, vendar oskrba še ni celostna, ker med različnimi zdravstvenimi in drugimi ustanovami še ni celovitih in kontinuiranih povezav. Tudi Ebert Moltara (2014) ocenjuje, da trenutna mreža paliativne oskrbe potrebam ne zadostuje, je neenakomerno razvejana in neustrezno organizirana, zaradi česar se je potrebno prilagajati regiji, iz katere je bolnik. Pomembno je, da se paliativna oskrba osredotoča na posledice neozdravljive bolezni in ne na specifično zdravljenje osnovne bolezni. Organizirana paliativna oskrba je velik problem tudi v tujini, saj so le redki bolniki deležni ustrezne oskrbe, ostali pa so zdravljeni v okviru primarnega nivoja zdravstvene dejavnosti s strani zdravnika družinske medicine in patronažne medicinske sestre (van der Plas, et al., 2013; Hess, et al., 2014).

Omejitve raziskave

Največjo omejitev raziskave predstavlja predvsem okoliščina, da je raziskava zajemala le nenaključni vzorec medicinskih sester in zdravnikov Koroške regije in ni zajela ostalih slovenskih regij. Čeprav smo v raziskovalni vzorec uspeli zajeti približno enako število medicinskih sester in zdravnikov tako na primarnem kot sekundarnem nivoju zdravstvene dejavnosti, le-ta s sto preiskovanci ni bil velik, zato ne omogoča posploševanja rezultatov.

Zaključek

V raziskavi smo ugotovili, da medicinske sestre in zdravniki poskušajo v nastali situaciji izkazati samozaupanje in samostojno ter strokovno pomagati neozdravljivo bolnemu in njegovi družini. Gotovo je paliativna oskrba ena od občutljivejših zadev, s katero se srečuje vsak posameznik, ki deluje v zdravstveni negi ali medicini. V praksi bo potrebno uskladiti načrtovanje in kontinuiteto zagotavljanja paliativne oskrbe tako na primarnem kot tudi na sekundarnem nivoju zdravstvene dejavnosti, da ne bo izključevanja pomembnosti. Ker je izobraževanje s področja paliativne oskrbe še vedno pomanjkljivo, je potrebno vlagati tako v izobraževanje kot raziskovanje. V prvi vrsti je potrebno podati več znanj iz paliativne oskrbe v dodiplomskem in podiplomskem študijskem programu na področju zdravstvene nege in tudi medicine. Potrebna je specializacija iz paliativne oskrbe. Le z ustreznim znanjem in odprtim odnosom do tematike se bodo zdravstveni delavci lažje spoprijemali z vsemi strokovnimi in osebnimi težavami. Z dobrim profesionalnim znanjem, z jasno izraženimi stališči do paliativne oskrbe in čustveno stabilnimi zdravstvenimi delavci bodo bolniki deležni kakovostne paliativne oskrbe ter tako mirneje zaključili svojo življenjsko pot. Zdravstvena politika pa je odgovorna za zagotavljanje financ, organizacijo in ustrezno infrastrukturo zdravstvenega sistema. Za poglobljeno presečno analizo in oceno razmer v paliativni oskrbi je priporočljivo tovrstno raziskavo opraviti še v drugih slovenskih regijah. Prav tako je treba nadaljevati raziskave v smeri ugotavljanja, katere situacije zdravstvenemu osebju predstavljajo največje breme in kako se z njimi soočiti.

Literatura

DeMiglio, L. & Williams, A., 2012. Shared care: the barriers encountered by community-based palliative care teams in Ontario, Canada. *Health and Social Care in the Community*, 20(4), pp. 420–429.
http://dx.doi.org/10.1111/j.1365-2524.2012.01060.x
PMid:22469189

Dobrina, R., Tenze, M. & Palese, A., 2014. An overview of hospice and palliative care nursing models and theories. *International Journal of Palliative Nursing*, 20(2), pp. 75–81.
http://dx.doi.org/10.12968/ijpn.2014.20.2.75
PMid:24577213

Eagar, K., Senior, K., Fildes, D., Quinsey, K., Owen, A., Yeatman, H., et al., 2003. *The palliative care evaluation tool kit: a compendium of tools to aid in the evaluation of palliative care projects*. Wollongong: Centre for Health Service Development, University of Wollongong.

Ebert Moltara, M., 2014. Paliativna oskrba. *Onkologija*, 18(1), pp. 53–55.

Ferrell, B., Virani, R., Paice, J.A., Coyle, N. & Coyne, P., 2010. Evaluation of palliative care nursing education seminars. *European Journal of Oncology Nursing*, 14(1), pp. 74–79.
http://dx.doi.org/10.1016/j.ejon.2009.08.004
PMid:19815460

Gallagher, J., 2013. The development of a 7-day community specialist palliative care service. *International Journal of Palliative Nursing*, 19(12), pp. 612–618.
http://dx.doi.org/10.12968/ijpn.2013.19.12.612
PMid:24356506

Han, P. & Arnold, R., 2005. Palliative care services, patient abandonment, and the scope of physicians' responsibilities in end-of-life care. *Journal of Palliative Medicine*, 8(6), pp. 1238–1245.
http://dx.doi.org/10.1089/jpm.2005.8.1238
PMid:16351537

Hanratty, B., Hibbert, D., Mair, F., May, C., Ward, C., Capewell, S., et al., 2002. Doctors' perceptions of palliative care for heart failure: focus group study. *British Medical Journal,* 325(7364), pp. 581–585.
http://dx.doi.org/10.1136/bmj.325.7364.581
PMid:12228136; PMCid:PMC124557

Hayes, A., Brumley, D., Habegger, L., Wade, M., Fisher, J. & Ashby, M., 2005. Evaluation of training on the use of Graseby syringe drivers for rural non specialist nurses. *International Journal of Palliative Nursing*, 11(2), pp. 84–92.
http://dx.doi.org/10.12968/ijpn.2005.11.2.17675
PMid:15798500

Hess, S., Stiel, S., Hofmann, S., Klein, C., Lindena, G. & Ostgathe, C., 2014. Trends in specialized palliative care for non-cancer patients in Germany – data from the National Hospice and Palliative Care Evaluation (HOPE). *European Journal of Internal Medicine*, 25(2), pp. 187–192.
http://dx.doi.org/10.1016/j.ejim.2013.11.012
PMid:24389372

Hillier, R. & Wee, B., 2001. From cradle to grave: palliative medicine education in the UK. *Journal of the Royal Society of Medicine*, 94(9), pp. 468–471.
PMid:11535753; PMCid:PMC1282190

Janssen, D.J., Spruit, M.A., Alsemgeest, T.P., Does, J.D., Schols, J.M. & Wouters, E.F., 2010. A patient-centred interdisciplinary palliative care programme for end-stage chronic respiratory diseases. *International Journal of Palliative Nursing*, 16(4), pp. 189–194.
http://dx.doi.org/10.12968/ijpn.2010.16.4.47785
PMid:20559181

Johnson, M.J. & Houghton, T., 2006. Palliative care for patients with heart failure: description of a service. *Palliative Medicine,* 20(3), pp. 211–214.
http://dx.doi.org/10.1191/0269216306pm1120oa
PMid:16764226

Johnston, B. & Smith, L.N., 2006. Nurses' and patients' perceptions of expert palliative nursing care. *Journal of Advanced Nursing*, 54(6), pp. 700–709.
http://dx.doi.org/10.1111/j.1365-2648.2006.03857.x
PMid:16796662

Krčevski Škvarč, N., Pavlin Jež, N., Žargi, T., Štrancar, K., Simonič, A., Peternelj, A., et al., 2010. *Državni program paliativne oskrbe*. Ljubljana: Ministrstvo za zdravje.

Mazej, B., Pelipenko, K. & Kersnik, J., 2008. Umirajoči bolnik in zdravnik družinske medicine. *Medicinski razgledi*, 47(4), pp. 403–410.

Mimić, A., Simonič, A. & Skela Savič, B. 2013. Razumevanje koncepta »umiranja z dostojanstvom« pri medicinskih sestrah v paliativni oskrbi. *Obzornik zdravstvene nege*, 47(4), pp. 325–332.

Mok, E. & Chiu, P.C., 2004. Nurse-patient relationships in palliative care. *Journal of Advanced Nursing*, 48(5), pp. 475–483.
http://dx.doi.org/10.1111/j.1365-2648.2004.03230.x
PMid:15533085

Nacionalni inštitut za javno zdravje, 2014. *Evidenca gibanja zdravstvenih delavcev in mreža zdravstvenih zavodov*. Ljubljana: Zdravstveno podatkovni center NIJZ.

Pautex, S., Curiale, V., van Nes, M.-C., Frühwald, T., Rexach, L. & van den Noortgate, N., 2013. Palliative care in acute geriatric care units across Europe: some reflections about the experience of geriatricians. *European Geriatric Medicine*, 4(4), pp. 288–292.
http://dx.doi.org/10.1016/j.eurger.2013.05.002

Peternelj, A. & Simonič, A., 2009. Izkušnje, znanje in predstave zdravstvenih delavcev in so delavcev o paliativni oskrbi. In: Majcen Dvoršak, S., et al. eds. *Medicinske sestre in babice – znanje je naša moč. 7. kongres zdravstvene in babiške nege Slovenije, 11. do 13. maj 2009*. Ljubljana: Zbornica zdravstvene in babiške nege Slovenije – Zveza strokovnih društev medicinskih sester, babic in zdravstvenih tehnikov Slovenije, pp. 232B (1-7).

Phillips, J., Salamonson, Y. & Davidson, P.M., 2011. An instrument to assess nurses' and care assistants' self-efficacy to provide a palliative approach to older people in residential aged care: a validation study. *International Journal of Nursing Studies*, 48(9), pp. 1096–1100.
http://dx.doi.org/10.1016/j.ijnurstu.2011.02.015
PMid:21377679

Selman, L., Harding, R., Beynon, T., Hodson, F., Hazaldine, C., Coady, E., et al., 2007. Modelling services to meet the palliative care needs of chronic heart failure patients and their families: current practice in the UK. *Palliative Medicine*, 21(5), pp. 385–390.
http://dx.doi.org/10.1177/0269216307077698
PMid:17901097

Skela-Savič, B., 2005. Od besed k dejanju: zdravstvena nega kot integralni del paliativne oskrbe onkoloških bolnikov. *Obzornik zdravstvene nege*, 39(4), pp. 245–253.

The European Association for Palliative Care, 2014. *Promoting palliative care in the community: producing a toolkit to improve and develop primary palliative care in different countries internationally*. Milan: The European Association for Palliative Care, pp. 1–31.

Turner, M., Payne, S. & O'Brien, T., 2011. Mandatory communication skills training for cancer and palliative care staff: does one size fit all? *European Journal of Oncology Nursing*, 15(5), pp. 398–403.
http://dx.doi.org/10.1016/j.ejon.2010.11.003
PMid:21163700

Van der Plas, A.G.M., Deliens, L., van de Watering, M., Jansen, W.J.J., Vissers, K.C. & Onwuteaka-Philipsen, B.D., 2013. Palliative care case management in primary care settings: a nationwide survey. *International Journal of Nursing studies*, 50(11), pp. 1504–1512.
http://dx.doi.org/10.1016/j.ijnurstu.2013.03.002
PMid:23545141

Von Gunten, C.F., 2002. Secondary and tertiary palliative care in US hospitals. *Journal of the American Medical Association*, 287(7), pp. 875–881.
http://dx.doi.org/10.1001/jama.287.7.875
PMid:11851580

Wittenberg-Lyles, E.M., Goldsmith, J., Sanchez-Reilly, S. & Ragan, S.L., 2008. Communicating a terminal prognosis in a palliative care setting: deficiencies in current communication training protocols. *Social Science & Medicine*, 66(11), pp. 2356–2365.
http://dx.doi.org/10.1016/j.socscimed.2008.01.042
PMid:18321625

World Health Organization, 2004. *WHO definition of palliative care*. Available at:
http://www.who.int/cancer/palliative/definition/en/
[17. 4. 2014].

Zadnik, V., Primic Žakelj, M. & SLORA, 2013. *Slovenija in rak. Epidemiologija in register raka*. Ljubljana: Onkološki inštitut. Available at: http://www.slora.si [10. 12. 2013].

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Pregledni znanstveni članek/Review article

Kompetence zdravstvene nege ter opredelitev strategij razvoja kompetenc na dodiplomskem študiju zdravstvene nege

Competence in nursing practice and strategies for the development of competences in the undergraduate nursing curriculum

Irena Trobec, Vesna Čuk, Andreja Istenič Starčič

IZVLEČEK

Uvod: Obseg znanja, ki ga medicinske sestre potrebujejo pri svojem delu, se stalno povečuje in s tem se spreminjajo tudi njihove kompetence. Naloga izobraževalnih ustanov je usposobiti diplomante za učinkovito soočanje z vse kompleksnejšimi zahtevami delovnega okolja in družbe. Osnovni namen pregleda literature je bil preučiti kompetence zdravstvene nege ter vpliv učnih metod na razvoj kompetenc.

Metode: Opravljen je bil pregled literature, objavljene v obdobju 2000 do 2012. Uporabljene so bile baze podatkov CINAHL, Medline, ERIC, Academic Search Premier in Health Source: Nursing/Academic Edition, dostopne preko podatkovnih zbirk EBSCOhost/EIFL Direct, vzajemna bibliografska-kataložna baza podatkov COBIB.SI, relevantne spletne strani strokovnih organizacij zdravstvene nege ter elektronski in drugi tiskani viri.

Rezultati: Identificiranih je bilo pet opisnih kategorij: kompetence zdravstvene nege, podlage v kompetence usmerjenega učenja, učenje in razvoj kompetenc, učenje v kliničnem okolju ter spremljanje in ocenjevanje kompetenc.

Diskusija in zaključek: Preučevanje kompetenc v zdravstveni negi je aktualna tema, saj so ključne pri opredelitvi sposobnosti, spretnosti in znanj, ki jih medicinske sestre potrebujejo za zagotavljanje učinkovite in kakovostne zdravstvene nege.

Ključne besede: kompetence; zdravstvena nega; aktivne metode učenja in poučevanja; univerzitetno izobraževanje

Key words: competences; nursing; active teaching and learning methods; university education

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ABSTRACT:

Introduction: The expanding knowledge necessary to perform nursing care entails higher standards of nurses' competences. The mission of educational institutions is therefore to educate lifelong learners who have knowledge and skills relevant to ever changing and complex working and social environment. The primary purpose of the literature review was to examine the nursing competences and the influence of competence-based pedagogy on teaching outcomes.

Methods: A literature review was conducted using the CINAHL, Medline, ERIC, Academic Search Premier and Health Source: Nursing/Academic Edition, accessible via EBSCOhost/eIFL Direct, Catalogue bibliographic database COBIB.SI, relevant Web sites of nursing professional organizations and other printed and electronic sources. The sources consulted were published in the period between the year 2000 and 2012.

Results: The review yielded the identification of five descriptive categories: nursing competences, basis of competence-centered learning, learning and competence development, learning in the clinical environment, and monitoring and assessment of competences.

Discussion and conclusion: Since competences are relevant for defining the core aptitudes, skills and knowledge necessary in quality nursing care delivery, they have become a subject of common research and investigation.

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Uvod

Bliskovit razvoj družbe, znanosti, predvsem medicinske, so poglavitni razlogi obsežnih sprememb, ki usmerjajo razvoj zdravstvenega varstva. Vse to postavlja učitelje zdravstvene nege pred zahtevno nalogo (Kantor, 2010). Izziv je še toliko večji zaradi specifičnega položaja zdravstvene nege v sistemu zdravstvenega varstva, saj medicinske sestre svoje delo opravljajo v neprestano spreminjajočem se okolju, v katerem je težko vnaprej predvideti situacije in njihovo reševanje.

Problemi, s katerimi se medicinske sestre srečujejo pri zdravstveni negi posameznika, družine ali skupine, so kompleksni. Malo je »standardnih« pacientov z vnaprej pričakovanimi problemi, veliko več je situacij, v katerih se medicinske sestre srečujejo z negotovostjo, nestabilnostjo in vrednostnimi konflikti. Kompleksna in dinamična klinična situacija še dodatno otežuje strokovne in etične odločitve medicinskih sester. Za uspešno obvladovanje naraščajoče kompleksnosti tako v družbi kot v delovnem okolju je potrebno ljudi opremiti z dodatnimi znanji. Naloga izobraževalnih institucij za trajnostni razvoj je, da poleg pridobivanja in ustvarjanja znanja posameznike usposobijo za odgovorno in premišljeno vedenje in delovanje v družbi (Barth, et al., 2007), ki naj temelji na vrednotah in moralnih prepričanjih.

Pridobivanje znanja in spretnosti za delo s pacienti, družinami ali skupinami, s poudarkom na kritičnem razmišljanju naj bi bila osrednja usmeritev izobraževanja. Stroka se mora odzivati na nova znanja, tehnološke, kulturne, politične in družbenoekonomske spremembe v družbi, če želi biti sposobna prepoznavati potrebe po zdravstveni negi v spremenjenem okolju (Kantor, 2010). Naloga izobraževalnih organizacij je izobraziti strokovnjake, ki bodo sposobni prepoznati spremembe in jih pripravljeni vključevati v svoje delo. Profesionalna usposobljenost temelji na kompetencah. S pojmom »kompetence« je opredeljena dinamična kombinacija lastnosti, sposobnosti in vedenja posameznika (Jormsri, et al., 2005). Strokovnjaki poudarjajo nujnost prehoda iz tradicionalnih metod učenja in poučevanja v zdravstveni negi, ki temeljijo na enosmernem podajanju faktografskega znanja, na v študenta usmerjene aktivne metode učenja in poučevanja (Kantor, 2010). Priprava študentov na uspešno obvladovanje situacije v praksi predstavlja izziv za izobraževalne ustanove, ki v izobraževalne namene uporabljajo simulacije, virtualno poustvarjanje realnosti in številne druge oblike poučevanja in učenja (Koerner, 2003; Nelson, 2006). Aktivne metode učenja in poučevanja so usmerjene v doseganje ciljev višje stopnje, spodbujajo študente, da razvijejo sposobnosti analize, interpretacije, razlage, sklepanja, samoregulacije, skratka sposobnosti, ki jih potrebuje medicinska sestra pri svojem delu (Bowles, 2006).

Namen in cilj

Osnovni namen je bil s pomočjo pregleda literature preučiti kompetence zdravstvene nege. Cilji: 1) opredelitev kompetenc zdravstvene nege; 2) opredelitev dejavnikov, ki vplivajo na razvoj kompetenc; in 3) ugotoviti, katere metode učenja/poučevanja so v posameznih okoljih najprimernejše. Zastavljeno raziskovalno vprašanje je bilo: Kako študenti med študijem zdravstvene nege razvijajo kompetence?

Metode

V raziskavi je bil uporabljen kvalitativni pristop in vsebinska analiza podatkov. Glede na izrazito neenotnost pri definiranju kompetenc je bil izbran integrativni pregled literature, ki ga Whittemore & Knafl (2005) opredeljujeta kot raziskovalno metodo, ki omogoča poglobljeno razumevanje preučevanega fenomena. Kodiranje je potekalo na osnovi procesa kodiranja utemeljitvene teorije (Holton, 2010).

Metode pregleda

Za pregled literature, ki je bila objavljena od januarja 2000 do decembra 2012, smo uporabili iskalnike in zbirke podatkov: CINAHL (Cumulative Index to Nursing and Allied Health Literature), Medline, ERIC (Education Resources Information Center), Academic Search Premier in Health Source: Nursing/Academic Edition, dostopnih preko podatkovnih zbirk EBSCOhost/EIFL Direct, in COBIB.SI (Vzajemna bibliografsko-kataložna baza podatkov). Z namenom pridobivanja dodatnih podatkov smo pregledali tudi spletno stran projekta Tuning Educational Structures in Europe in spletno stran Svetovne zdravstvene organizacije (angl. *World Health Organization*) ter druge elektronske in tiskane vire na to temo.

Za iskanje literature so bile uporabljene ključne besede v angleškem oziroma slovenskem jeziku. Z namenom oženja zadetkov so bili uporabljeni omejitveni kriteriji: recenzirani članki, celotno besedilo in leto objave. Iskanje, preverjanje ter analiza bibliografskih enot je potekala s pomočjo spletnega orodja za upravljanje z referencami End NoteWeb.

Rezultati pregleda

Ključna beseda prvega iskanja je bila kompetence (angl. *competencies*), da bi se izognili strokovni pristranskosti. V naslednjih korakih so bile dodane še ostale ključne besede prav tako v angleščini oziroma v slovenščini za iskanje v slovenski bazi podatkov (Tabela 1). Da bi se izognili povzemanju napačnih interpretacij primarnih virov (Whittemore & Knafl, 2005), so v nabor vključeni tudi nekateri viri literature, pridobljeni s pomočjo referenc v prej izbranih zadetkih, spletni viri ter nekatera teoretična dela, ki

sicer v celoti ne ustrezajo iskalnim kriterijem, vendar ključno pripomorejo k razumevanju samega fenomena in njegovega konteksta (Tabela 2). Kriteriji obdelave podatkov so zastavljeni skladno s cilji raziskave in raziskovalnim vprašanjem.

V prvem koraku je bilo identificiranih 2521 zadetkov ter 32 zadetkov na podlagi sledenja referenc. Po izločitvi podvojenih in za pojasnjevanje raziskovalnega vprašanja nerelevantnih zadetkov je ostalo še 214 zadetkov. Izločitveni kriterij drugega koraka, tj. nizka povezanost z raziskavo, je število zadetkov omejil na 72 zadetkov. Po branju z drugim korakom zbranih besedil so bili v tretjem koraku izključeni še vsi zadetki, ki izbranim kriterijem niso ustrezali v celoti. Izključili smo vse zadetke, ki niso bili povezani s kompetencami in izobraževanjem, in se omejili na članke v angleškem jeziku v izbranem obdobju. Za pojasnjevanje fenomena kompetenca je bilo v končno analizo tako vključenih 37 zadetkov.

Ocena kakovosti pregleda in opis obdelave podatkov

V integrativni pregled literature so zajeti različni teoretični in empirični viri literature (Whittemore & Knafl, 2005), ki povečujejo kompleksnost pregleda, vendar tudi otežujejo celovito oceno kakovosti. Zaradi raznolikosti v končno analizo vključenih virov literature je analiza kakovosti potekala glede na metodološko in teoretično rigoroznost ter podatkovno ustreznost na podlagi dvostopenjske lestvice (visoka/nizka). Ocena ključnih člankov (15) je predstavljena v Tabeli 1. Preostali viri literature (23), ki vključujejo tudi znanstvene monografije (3), poglavja v znanstvenih monografijah (3) in spletne strani (2), so uporabljeni zaradi poglobljenega pojasnjevanja raziskovanega fenomena in so prikazani v Tabeli 2.

Rezultati

Skladno s cilji raziskave in zastavljenim raziskovalnim vprašanjem so ugotovitve vsebinske analize razvrščene v pet kategorij: 1) kompetence zdravstvene nege; 2) podlage v kompetence usmerjenega izobraževanja; 3) učenje in razvoj kompetenc; 4) učenje v kliničnem okolju ter 5) spremljanje in ocenjevanje kompetenc. Vse te kategorije so opisane v naslednjih podpoglavjih.

Tabela 1: *Seznam v končno analizo vključenih člankov*
Table 1: *The list of articles included in the final analysis*

Avtor/ Author	**Metodologija/ Methodology**	**Namen/ Aim**	**Vzorec/ Sample**	**Ugotovitve/ Findings**
Meretoja, et al., 2002	Kvalitativna raziskava	Identificirati indikatorje kompetentne zdravstvene nege in jih validirati v različnih okoljih.	25 skupin strokovnjakov različnih področij je identificiralo niz indikatorjev kompetentne zdravstvene nege, ki jih je nato validirala skupina strokovnjakov (n = 26).	Ugotovljeni indikatorji so uporabni v različnih delovnih okoljih. Sodelovanje in koordinacija ter tudi holističen menedžment v dani situaciji so ključne značilnosti kompetentne zdravstvene nege.
Meretoja & Leino-Kilpi, 2003	Kombinirana metoda	Ugotoviti usklajenost v ocenjevanju medicinskih sester in njihovih vodij, ki se nanaša na nivo usposobljenosti medicinskih sester, in pogostost uporabe kompetenc na bolniških oddelkih.	Vzorec je zajemal medicinske sestre in njihove vodje, zaposlene v večji univerzitetni bolnišnici na Finskem. Izbran je bil kirurški oddelek zaradi velikosti in raznolikosti (največ različnih področij). Sodelovalo je 118 zaposlenih. Pri medicinskih sestrah je bila odzivnost 69 %, pri njihovih vodjih pa 100 %.	Kompetence medicinskih sester se razlikujejo glede na doseženo znanje, ki ga zahteva poklicna vloga. Gre za primerjavo kompetenc, ki jih potrebujejo medicinske sestre menedžerji in medicinske sestre praktiki.
Tzeng & Ketefian, 2003	Kombinirana metoda	Preučiti, kakšne kompetence potrebujejo medicinske sestre na Tajvanu za opravljanje dela na različnih področjih zdravstvene nege.	Kompetence medicinskih sester so bile identificirane s pregledno študijo. Presečna kvantitativna raziskava je bila narejena na vzorcu 89 zaposlenih v zdravstveni negi (direktorji zdravstvene nege, njihovi pomočniki, supervizorji in glavne medicinske sestre). Odzivna stopnja je bila 42,6 %.	Kompetence so na delavnem mestu nujne, vendar se razlikujejo glede zahtev ustanove, področja zaposlitve, nivoja izobrazbe, sistema zdravstvenega varstva in demografskih karakteristik.

Se nadaljuje/Continues

Edwards, et al., 2004	Kvantitativna raziskava	Ugotoviti povezavo med kliničnim okoljem (v ruralnih in urbanih kliničnih ustanovah) in kompetencami.	Sodelovalo je 137 študentov pred začetkom klinične prakse in 121 študentov po zaključeni klinični praksi.	Avtorji so ugotovili, da se študenti počutijo bolj sposobni, samozavestni in organizirani v ruralnem kliničnem okolju.
Meretoja, et al., 2004	Kvantitativna raziskava	Testiranje instrumenta NCS (Nurse Competence Scale) za merjenje kompetenc.	V raziskavi je sodelovalo 498 medicinskih sester. Odzivnost je bila 86,5 %.	Opis razvoja in testiranje kompetenc s pomočjo Nurse Competence Scale – instrumenta za ocenjevanje nivoja kompetenc medicinskih sester na različnih področjih dela.
Chyung, et al., 2006	Kvalitativna raziskava	Predstavitev teoretičnih in praktičnih osnov o kompetencah ter oblikovanju učnih načrtov, ki omogočajo razvoj in uporabo kompetenc.	Pregled in analiza literature.	V okviru izobraževanja naj bi študenti poleg znanja veščin in spretnosti, pridobili tudi sposobnost uporabe tega znanja v praksi.
Khomeiran, et al., 2006	Kvalitativna raziskava	Preučiti in komentirati dejavnike, ki lahko vplivajo na razvoj kompetenc.	Namenski vzorec 27 medicinskih sester, zaposlenih v dveh univerzitetnih bolnišnicah. Podatki so pridobljeni s pomočjo polstrukturiranega intervjuja.	Vpliv osebnih in drugih dejavnikov na razvoj osebnih kompetenc. Poznavanje teh dejavnikov učiteljem in menedžerjem omogoča, da študente oziroma medicinske sestre usposobijo in pripravijo na izvajanje kakovostne zdravstvene nege.
Swider, et al., 2006	Kombinirana metoda	Opis postopka ocenjevanja in revizije podiplomskega študijskega programa z namenom priprave specialističnega študija, ki bi bil usmerjen v razvoj znanja, strokovnosti in vseh potrebnih kompetenc.	Pregled in ocena obstoječe dokumentacije.	Merjenje razvoja kompetenc. Usposabljanje za kompetence naj bi presegalo stroškovno naravnanost. Študent naj pridobi tudi znanje, ki omogoča vključevanje v delovno okolje in izvajanje zadolžitev.
Barth, et al., 2007	Kvalitativna raziskava	Preučiti vpliv formalnega in neformalnega učenja na razvoj kompetenc in njuno medsebojno povezanost.	Presečna študija s pomočjo fokusnih skupin iz formalnega in neformalnega učnega okolja.	Razvoj kompetenc zahteva posebne strategije kot sestavni del izobraževalnega procesa. Razvoj je možno nadzirati le do neke mere. Ob podpori in omogočanju vključevanja neformalnega učenja v sam proces je ključna študentova osebna odgovornost.
McCready, 2007	Kvalitativna raziskava	Na podlagi pregleda literature ugotoviti uporabno vrednost »portfolio assessmenta« pri ocenjevanju kompetenc v okviru izobraževanja za zdravstveno nego.	Pregled in analiza literature. Iskanje virov je potekalo z uporabo baz podatkov CINAHL in Medline in z ročnim iskanjem relevantnih člankov in drugih dokumentov.	Ugotavljanje primernosti inštrumenta za ocenjevanje kompetenc. Podatki kažejo, da »portfolio assessment« izboljša rezultate učenja, čeprav ostaja odprto vprašanje, ali z uporabo »portfolio assessmenta« kompetence lahko merimo ali ne.

Se nadaljuje/Continues

Jonnaert, et al., 2007	Teoretična raziskava	Opredeliti kompetence skozi teoretični in praktični vidik.	Pregled literature.	Na razvoj kompetenc vplivata tako oblika študija kot tudi organizacija prakse zdravstvene nege. Kompetence niso podrejene teoretičnim vplivom, ampak je ključna aktivna udeležba v situaciji.
Epstein & Hundert, 2008	Kvalitativna raziskava	Opredelitev kompetenc in oblikovanje drugačnih metod ocenjevanja.	Pregled in analiza literature.	Avtorja ugotavljata, da ni enotne opredelitve kompetenc. Kritično so ocenjene dosedanje metode ocenjevanja in podan predlog za nova orodja pri ocenjevanju kompetenc študentov medicine.
Vanaki & Memarian, 2009	Kvalitativna raziskava	Ugotoviti vpliv kliničnih kompetenc na profesionalno etiko.	Analiza intervjujev 36 medicinskih sester iz bolnišničnega in univerzitetnega okolja na podlagi utemeljitvene teorije.	Profesionalna etika je ključni dejavnik pri zagotavljanju dobre klinične prakse. Na oblikovanje profesionalnega etičnega pristopa vplivajo: osebne lastnosti, delovno okolje, opravljanje učinkovite klinične prakse.
Istomina, et al., 2011	Kvantitativna raziskava	Preučiti dejavnike, ki vplivajo na razvoj kompetenc medicinskih sester.	Sodelovalo je 218 medicinskih sester na kirurških oddelkih bolnišnic v Litvi. Uporabljena sta bila instrumenta NCS in GNS (Nurse Competence Scale and the Good Nursing Care Scale for Nurses).	Izobrazba, izkušnje in profesionalni razvoj ključno vplivajo na kompetence medicinskih sester in posledično na kakovost zdravstvene nege.
Garside & Nhemachena, 2012	Kvalitativna raziskava	Predstaviti ugotovitve konceptualne analize, s katero so bili preučevani različni vidiki kompetenc predvsem glede interpretacije, vključevanja in preoblikovanja v času znotraj izobraževanja za zdravstveno nego v Združenem kraljestvu.	Pregled in analiza literature.	Ugotovitve konceptualne analize razvoja interpretacije pojmov kompetenca in kompetentnost ter njun vpliv na profesionalni razvoj medicinskih sester.

Tabela 2: *Viri literature, identificirani na podlagi referenc*
Table 2: *Sources identified through reference tracking*

Avtor/ Author	**Vir/ Source**	**Opis izbranega vira/ Description of the selected source**
Benner, 2001	Znanstvena monografija	Učenje v kliničnem okolju
Garrison, et al., 2001	Izvirni znanstveni članek	Učenje in razvoj kompetenc
Giancarlo & Facione, 2001	Pregledni znanstveni članek	Učenje in razvoj kompetenc
WHO, 2001	Spletni vir	Podlage v kompetence usmerjenega izobraževanja
Wass, et al., 2001	Izvirni znanstveni članek	Spremljanje in ocenjevanje kompetenc
Doane, et al., 2004	Pregledni znanstveni članek	Učenje in razvoj kompetenc
Comer, 2005	Strokovni članek	Učenje in razvoj kompetenc
Clayton, 2006	Pregledni znanstveni članek	Učenje in razvoj kompetenc
Istenič Starčič, 2006	Poglavje v znanstveni monografiji	Učenje v kliničnem okolju
Keating, 2006	Poglavje v znanstveni monografiji	Podlage v kompetence usmerjenega izobraževanja
Tuning general broschure, 2006	Spletni vir	Podlage v kompetence usmerjenega izobraževanja
Eraut, 2007	Poglavje v znanstveni monografiji	Učenje v kliničnem okolju
Nelson & Blenkin, 2007	Izvirni znanstveni članek	Učenje in razvoj kompetenc
Riddell, 2007	Pregledni znanstveni članek	Učenje in razvoj kompetenc
Sauvé, et al., 2007	Pregledni znanstveni članek	Učenje in razvoj kompetenc
Simpson & Courtney, 2008	Izvirni znanstveni članek	Učenje in razvoj kompetenc
Anderson & Tredway, 2009	Pregledni znanstveni članek	Podlage v kompetence usmerjenega izobraževanja
Kiger, 2009	Znanstvena monografija	Učenje v kliničnem okolju
Vacek, 2009	Strokovni članek	Učenje in razvoj kompetenc
Clapper, 2010	Strokovni članek	Učenje in razvoj kompetenc
Mortel & Bird, 2010	Pregledni znanstveni članek	Podlage v kompetence usmerjenega izobraževanja
Wangensteen, et al., 2010	Izvirni znanstveni članek	Spremljanje in ocenjevanje kompetenc
Zachary, 2011	Znanstvena monografija	Učenje v kliničnem okolju

Kompetence zdravstvene nege

Pomembna naloga medicinskih sester edukatorjev je pomagati pri integraciji teorije s prakso in ovreči trditev, da izobraževanje za zdravstveno nego sestavljata dva medsebojno ločena nivoja, in sicer akademski nivo in klinična praksa (McCready, 2007). Združevanje obeh nivojev v procesu izobraževanja omogoča pridobivanje in razvoj kompetenc, ki so nujne za učinkovito in kakovostno delo.

Kompetenca je kombinacija veščin, sposobnosti in znanja, ki je potrebno za izvedbo specifične naloge (Chyung, et al., 2006). Posamezniku omogoča, da skladno z zahtevami svojega delovnega mesta dosega kakovostne rezultate. Dejansko so kompetence več kot samo znanje in spretnost pri izvajanju profesionalnih zadolžitev, saj vključujejo tudi sposobnost prenosa znanja in spretnosti v prakso (Edwards, et al., 2004). Posameznik (bodoči profesionalec) mora med izobraževanjem pridobiti kompetence za učinkovito in odgovorno izvajanje specifičnih nalog v okviru svoje stroke.

Epstein in Hundert (2008) sta profesionalne kompetence opredelila kot sposobnost vključevanja smiselne komunikacije, tehničnih sposobnosti, klinične presoje, čustev, vrednot in refleksije v svoje delo, ki ga profesionalec opravlja v korist posameznika ali skupnosti. Kompetence so zgrajene na temeljni klinični usposobljenosti, teoretičnem znanju in moralni razvitosti. Vse to vključuje kognitivno funkcijo pridobivanja in uporabo znanja pri reševanju problemov (Vanaki & Memarian, 2009).

Poudariti je treba, da kompetence niso le preprosta spretnost opravljanja nalog in zadolžitev, ampak je v ospredju sposobnost povezovanja znanja in spretnosti, ki jih naloga zahteva. Poleg tega se je treba zavedati, da vse na veščinah temelječe usposabljanje ni nujno usmerjeno v kompetence. Ni toliko pomembno to, kar nekdo zna in ve o neki nalogi, ampak predvsem to, ali je sposoben to nalogo opraviti in ustvariti rezultat, ki je sprejemljiv za oba, tako za posameznika kot delovno organizacijo (Chyung, et al., 2006).

Kompetence se spreminjajo skladno s potrebami, ki so posledica družbenega razvoja, znanstveno-tehnološkega razvoja, sistemskih sprememb ali zahtev okolja. Obsegajo široko paleto znanj in praktičnih

spretnosti, ki so potrebne za učinkovito klinično prakso (Tzeng & Ketefian, 2003).

Kompetence zdravstvene nege so opisane kot sposobnost izvajanja osnovnih negovalnih spretnosti, ki vključujejo: 1) klinične kompetence – sposobnost ocenjevanja, izvajanja intervencij, klinične presoje ter tehnične spretnosti; 2) splošne kompetence – komunikacijske spretnosti, sposobnost kritičnega razmišljanja ter sposobnost reševanja problemov; 3) moralne kompetence – sposobnost posameznika, da živi skladno z osebnim moralnim kodeksom in profesionalnimi zadolžitvami (Tzeng & Ketefian, 2003; Edwards, et al., 2004; Swider, et al., 2006; Vanaki & Memarian, 2009).

Kompetentno izvajanje zdravstvene nege, kakršno družba dandanes pričakuje od medicinskih sester, predstavlja vedno večji izziv, saj se soočajo z vse bolj kompleksnimi in zahtevnimi storitvami zdravstvene nege, s problemom zmanjševanja števila zaposlenih v zdravstveni negi zaradi zniževanja stroškov zdravstvenega varstva in z drugimi razvojnimi problemi (Tzeng & Ketefian, 2003; Vanaki & Memarian, 2009; Garside & Nhemachena, 2012). Navedeni razlogi še dodatno potrjujejo potrebo po v kompetence usmerjenem izobraževanju.

Podlage v kompetence usmerjenega izobraževanja

V projektu Tuning – educational structures in Europe (Tuning general broschure, 2006) so kompetence opredeljene z vidika doseganja učnih ciljev in kompetenc ter pomembnih udeležencev procesa. Opisujejo pričakovano znanje, razumevanje in/ali sposobnosti študenta po zaključenem učenju. Kompetence študent doseže oziroma razvije med učnim procesom, predstavljajo pa dinamično kombinacijo znanja, razumevanja, spretnosti in sposobnosti.

Dokument Tuning general broschure (2006) kompetence razdeli na generične in predmetno specifične. Generične kompetence so instrumentalne, interpersonalne in sistemske. Instrumentalne kompetence vključujejo kognitivne, metodološke, tehnološke in lingvistične sposobnosti. Interpersonalne kompetence so individualne sposobnosti (npr. socialne spretnosti) socialne interakcije in sodelovanja, medtem ko so sistemske kompetence sposobnosti in spretnosti povezane s celotnim sistemom (kombinacija razumevanja, občutljivosti in znanja, predhodna pridobitev instrumentalnih in medosebnih kompetenc). Posameznik jih večinoma pridobi izven formalnega izobraževanja. Predmetno specifične kompetence so povezane s specifičnimi vsebinami posameznega predmeta ali strokovnega področja in jih je smiselno razvijati znotraj le-tega (Tuning general broschure, 2006).

Visokošolske organizacije so zadolžene za pripravo kurikulumov področij, za katera izobražujejo. Priprava kurikulumov za posamezna področja upošteva spreminjajoče se potrebe družbe, natančneje potrebe specifičnih področij. Kompetenčno naravnanost študijskih programov je opaziti tudi v izobraževanju za zdravstveno nego (Tuning general broschure, 2006).

Z bolonjsko prenovo se poudarja potreba po novih ključnih kompetencah zaposlenih v zdravstveni negi. Med njimi tudi sposobnost pridobivanja in uporabe sodobnih znanstvenih izsledkov pri vsakdanjem delu in profesionalnem razvoju (Evidence based practice – EBP) ob podpori informacijsko-komunikacijskih tehnologij (IKT). Študenti s tem razvijajo profesionalne kompetence, sposobnosti prenosa v prakso, spretnosti uporabe IKT in ne nazadnje poglabljajo znanje jezika. Temeljna spretnost pri razvijanju in uporabi kompetenc je kritično razmišljanje, ki vpliva na sam potek učenja in je istočasno pomemben cilj izobraževalnih programov zdravstvene nege (Anderson & Tredway, 2009). Kritično razmišljanje je tudi eden ključnih kriterijev vrednotenja pri akreditaciji izobraževalnih programov zdravstvene nege. Skladno s tem morajo biti medicinske sestre edukatorji usposobljene za pripravo in načrtovanje kurikuluma, ki omogoča spremljanje oziroma ugotavljanje pozitivnih sprememb v kritičnem razmišljanju izobražujočih se študentov (Giancarlo & Facione, 2001).

Pojem kurikulum pomeni v najbolj osnovni razlagi smer ali pot poučevanja. Širša interpretacija pojma vključuje študentove učne izkušnje ter interaktivni proces učenja in poučevanja (Mortel & Bird, 2010). Keating (2006) kurikulum opredeljuje kot formalni načrt študija, ki zagotavlja filozofsko osnovo, definira cilje in navodila za izvedbo specifičnega izobraževalnega programa. Torej gre za usmeritve pri opredeljevanju vsebin poučevanja in učenja, katerega funkcija je trojna: 1) uskladitev izobraževalnega sistema s trenutnimi izobrazbenimi potrebami družbe; 2) usmerjanje za implementacijo potrebnih ukrepov ter 3) priprava izvedbenega načrta tako na administrativni kot izobraževalni ravni (Jonnaert, et al., 2007).

Učenje in razvoj kompetenc

Doane in sodelavci (2004) ter Clayton (2006) ugotavljajo, da je v zadnjih desetletjih prišlo do sprememb na področju izobraževanja za zdravstveno nego predvsem glede izbire strategij učenja in poučevanja. Učitelji zdravstvene nege se zavedajo, da morajo študenti poleg teoretičnega znanja razviti tudi kritično razmišljanje, da bodo sposobni reševati probleme na različnih kliničnih področjih, kar pa zahteva aktivne strategije poučevanja in učenja za smiselno znanje v nasprotju s tradicionalnimi metodami, ki so usmerjene predvsem v pomnjenje.

Garrison in sodelavci (2001) kritično razmišljanje definirajo kot fenomen in ga opisujejo kot proces ter rezultat učenja in poučevanja, pogosto prisoten kot

navidezni cilj na visokošolski stopnji izobraževanja.

Avtorji, ki so zadnja desetletja raziskovali kritično razmišljanje, so oblikovali različne razlage in definicije niso mogli poenotiti (Vacek, 2009), dokaj enotni pa so si bili glede sestavnih elementov in značilnosti, po katerih je mogoče kritično razmišljanje prepoznati (Riddell, 2007). Posamezniki, ki izkazujejo sposobnost kritičnega razmišljanja, združujejo niz kognitivnih in afektivnih spretnosti, ki so pomembne pri odločanju. Lastnosti, ki jih pripisujemo posamezniku, ki kritično razmišlja, so: radovednost, sistematičnost, preudarnost, resnicoljubnost, analitičnost, odprtost in samozavestnost. Simpson in Courtney (2008) kritično razmišljanje opisujeta kot opredelitev predpostavk in problemov, razjasnitev vprašanj, porajanje novih vprašanj in oblikovanje rešitev. V zdravstveni negi je sposobnost kritičnega razmišljanja nujna predvsem zaradi kompleksnosti in hitro spreminjajočih se situacij, v katerih medicinske sestre vsakodnevno rešujejo probleme in sprejemajo strokovne in etične odločitve na podlagi pogosto pomanjkljivih informacij.

Kakorkoli, pridobivanje kompetenc bi le težko primerjali z učenjem, katerega rezultat je znanje. Barth in sodelavci (2007) opisujejo kompetence kot nekaj, kar se da naučiti, vendar ne poučevati (angl. *Competencies are described as learnable but not teachable*). Vedeti je treba, da pridobivanje kompetenc ne temelji zgolj na individualnih procesih, ampak se vedno dogaja v socialnem kontekstu in vsaj delno skozi sodelovanje. Da bi zagotovili učinkovito pridobivanje kompetenc je treba ustvariti ustrezno skupinsko situacijo in uporabiti učno metodo, ki omogoča medosebno izmenjavo mnenj (Barth, et al., 2007). Ugotavljamo, da je pridobivanje kompetenc proces, ki zahteva aktivno vključevanje študenta v učni proces ob istočasnem povečanem nadzoru nad njegovim delom, kar zahteva večjo individualizacijo pri študiju.

Vprašanja prenosa teorije v prakso in aplikacije kompetenc v avtentičnem okolju uspešno rešuje učenje s simulacijami in igrami. Pri učenju razumevanja prepletenih vidikov resničnega življenja je s simulacijo omogočena bolj pregledna predstavitev in analiza parametrov pri pojasnjevanju procesov, odnosov in sistemov. Bistvena značilnost simulacije v izobraževanju je vzpostavitev poenostavljenega modela realnosti (Sauvé, et al., 2007), ki omogoča dinamično obravnavo, pri čemer študent sam nadzira in usmerja parametre. Učenje v okolju, ki daje občutek »resničnega sveta« (Istenič Starčič, 2006), vzpostavljajo simulacijske igre. Igra spodbuja razvoj veščin, potrebnih za razvoj v strokovnjaka, z inovativnim in ustvarjalnim reševanjem problemov, česar v tradicionalnem univerzitetnem poučevanju primanjkuje. Klinična simulacija realne negovalne situacije, neposredno povezane s snovjo, obravnavano v učilnici, študentom omogoča pridobivanje negovalnih spretnosti z uporabo teoretičnega znanja v kontroliranem okolju. S simulacijo študenti utrdijo naučeno snov v aktivnem učnem okolju (Comer, 2005). Simulacija omogoča zelo realne učne izkušnje, tesno povezane z realno situacijo. Igra vlog je oblika simulacije, ki omogoča utrjevanje spretnosti, ki jih študent pozneje potrebuje za delo v kliničnem okolju (Clapper, 2010). Igra vlog v virtualnem okolju prav tako ponuja v študenta usmerjeno strategijo učenja in poučevanja. Virtualno okolje je dinamičen medij, ki učečemu se omogoča gradnjo lastnega znanja na osnovi interakcije, kar pomeni, da je študentova izkušnja rezultat njegovega delovanja. Spletna igra vlog študente zaposli v kompleksni kontekstualni vaji, ki podpira globinsko učenje (Nelson & Blenkin, 2007). Skratka, simulacija je (ne glede na okolje, v katerem poteka) učna strategija pri poučevanju zdravstvene nege, ki omogoča aktiven proces učenja na podlagi simulacije realnih kliničnih situacij. Študentom omogoča, da se poglobijo v situacijo, kritično razmišljajo in iščejo rešitev problemov, ki jih situacija izpostavlja, ter povečujejo svoje komunikacijske spretnosti.

Učenje v kliničnem okolju

Razvoj kompetenc in pridobivanje usposobljenosti v zdravstveni negi poteka tudi v realnem kliničnem okolju. Meretoja in sodelavci (2004) so opredelili splošne profesionalne in specifične klinične kompetence ter holističen vidik kompetenc kot sposobnosti izvajanja specifičnih nalog v klinični praksi, zmožnosti vključevanja teoretičnega znanja, spretnosti, sposobnosti in vrednot v aktualno klinično okolje z integracijo kognitivnih, efektivnih in psihomotoričnih zahtev v praksi ter razvoj sposobnosti za profesionalni razvoj. V zadnji fazi razvoja kompetenc je profesionalec že pripravljen na širjenje profesionalnega znanja v skupnosti.

Pridobivanje znanja in razvijanje kompetenc poteka postopno preko prenosa teoretičnih vsebin v prakso na različnih področjih kliničnega usposabljanja. S prenosom teoretičnega znanja v klinično prakso se študenti učijo obvladovanja različnih kliničnih situacij (Edwards, et al., 2004). Z refleksijo konkretnih izkušenj pri poučevanju in učenju zdravstvene nege v kliničnem okolju se le-ti razvijajo v bodoče samostojne strokovnjake. Študenti, novinci kot napredni začetniki, na začetku svoje profesionalne poti potrebujejo veliko podpore, vodenja in pomoči, saj je veliko novosti in pravil, ki se jih morajo najprej naučiti in zapomniti in potem uporabiti v realnih kliničnih situacijah (Benner, 2001).

Študentove predhodne izkušnje in teoretično znanje vplivajo na razvoj kompetenc v zdravstveni negi (Kiger, 2009). Reflektivno prakso v zdravstveni negi navaja tudi Benner (2001), ki pravi, da »razvoj kompetenc v kliničnem okolju poteka s pridobivanjem znanja, spretnosti in sposobnosti ter tehničnega znanja. Reflektivna praksa v zdravstveni negi ni povezana samo z razvojem kompetenc (pristojnosti), ampak je

definirana kot pregled lastne prakse zdravstvene nege za določanje učnih potreb, ki vključujejo učenje za izboljšanje lastne prakse. Osrednja točka tega procesa je refleksija, ki pomeni razmislek o lastni klinični praksi v primerjavi s standardi zdravstvene nege«. Študentom je treba zagotoviti možnost refleksije o lastnih aktivnostih in pomenu pridobivanje znanja in izkušenj. Poleg navedenega je Zachary (2011) izpostavila še medsebojni odnos, ki pomeni izziv ter nudi podporo in vizijo. Refleksija in samoocenjevanje delovnega kliničnega okolja in medsebojnih odnosov sta torej pomembna pri sprotnem vrednotenju lastne klinične prakse in standardov kakovosti zdravstvene nege.

Smiselnost učenja s sodelovanjem v delovnem okolju opisuje tudi Eraut (2007). Slednji ugotavlja, da se ključne značilnosti takega modela kažejo kot situacijsko praktično ocenjevanje, proces sprejemanja odločitev, izvajanje aktivnosti in metakognitivno znanje. Z delovnimi izkušnjami v kliničnem okolju se študenti učijo zdravstvene nege pacientov, učijo se na kliničnih primerih, z zgledom ob vodenju kliničnih mentorjev, usposobljenih medicinskih sester in drugih zdravstvenih delavcev v kliničnem timu.

Pridobivanje neposrednih izkušenj v kliničnem okolju z učenjem na delovnem mestu pomembno vpliva na pridobivanje znanja, spretnosti in kompetenc, tako splošnih kot poklicno specifičnih (Khomeiran, et al., 2006).

Spremljanje in ocenjevanje kompetenc

Za dobro klinično prakso in prakso nasploh je smiselno vzpostaviti standarde, ki omogočajo spremljanje razvoja posameznikovih kompetenc in inštrumente za merjenje kompetenc. Wass, et al. (2001) v svojem članku predlagajo stopenjsko izvajanje in pridobivanje kompetenc v kliničnem okolju in ocenjevanje kompetenc, ki temeljijo na znanju (vedeti da), na pristojnostih (vedeti kako) in zmožnostih (pokazati kako). V navedenem prepoznamo številne podobnosti s procesom pridobivanja kompetenc v kliničnem okolju, ki je značilen tudi za zdravstveno nego.

V zdravstveni negi je temelje za raziskovanje kompetenc postavila Benner (2001). Njen teoretični okvir temelji na raziskovanju in opazovanju klinične prakse in oblikovanju zahtev za razvoj kompetenc, spretnosti in vrednot v zdravstveni negi. Avtorica je ugotovila, da imajo izkušeni praktiki v zdravstveni negi znanje, ki ga ni mogoče pridobiti v razredu, ter da le učenje in poučevanje v kliničnem okolju omogoča razvoj kompetenc. Benner (2001) je tudi utemeljila profesionalni razvoj izvajalcev zdravstvene nege s stopenjskim doseganjem kompetenc od novinca do eksperta. Ugotovila je, da na profesionalni razvoj v zdravstveni negi vplivajo praktično izkustveno učenje, znanstvena spoznanja, podprta z opazovanjem, ter na dokazih temelječe raziskave, izvedene v klinični praksi zdravstvene nege. V večini tujih strokovnih virov je Benner (2001) navedena kot ključna raziskovalka na področju profesionalnega razvoja in ključnih kompetenc v zdravstveni negi.

Njen koncept o razvoju in stopenjskem doseganju kompetenc v zdravstveni negi je bil osnova za merski inštrument NCS (angl. *Nurse competence scale*), ki so ga številni avtorji (Meretoja, et al., 2002; Mertoja & Leino-Kilpi, 2003; Meretoja, et al., 2004; Wangensteen, et al., 2010; Istomina, et al., 2011) uporabili pri raziskovanju kompetenc v zdravstveni negi. Vprašalnik vključuje sedem ključnih področij kompetenc zdravstvene nege, od katerih je vsako področje opisano z različnimi merili. Za ocenjevanje stopnje kompetenc so uporabili lestvico VAS (angl. *Visual analogue scale*), za ocenjevanje pogostosti uporabe pa štiristopenjsko Likertovo lestvico.

Diskusija

Iz ugotovitev pregleda literature je razvidno, da so se raziskovalci usmerili predvsem v definiranje kompetenc, vplive na razvoj ter spremljanje razvoja kompetenc v študijskem obdobju in po končanem študiju.

Kompetence v zdravstveni negi so težko opredeljiv pojem, ki izhaja iz kontroverznosti in zmede, prisotne v zdravstveni negi kot poklicno orientirani profesiji (Khomeiran, et al., 2006). Garside in Nhemachena (2012) pravita, da so kompetence v zdravstveni negi obravnavane kot bistvena poklicna sestavina in lastnost medicinskih sester, ki jim omogoča zagotavljanje učinkovite zdravstvene nege. Za razliko od sposobnosti, ki so v veliki meri podedovane, se kompetenc posameznik lahko nauči (Pekljaj, 2006).

Številni avtorji (DeBack & Mentkowski, 1986; Archibald & Bainbridge, 1994) kompetence zdravstvene nege definirajo kot osebne sposobnosti, ki jih medicinske sestre razvijejo med študijem in so rezultat vključenosti v študijski proces. Kompetence določenega področja vključujejo spoznavno raven (sposobnost kompleksnega razmišljanja in reševanja problemov ter znanje na določenem področju), čustveno-motivacijsko raven (stališča, vrednote, pripravljenost za aktivnost) ter vedenjsko raven (sposobnost ustrezno aktivirati, uskladiti in uporabiti svoje potenciale v kompleksnih situacijah). Učinkovito reševanje problemov na različnih kliničnih področjih je v veliki meri odvisno od sposobnosti kritičnega razmišljanja. Facione (1990) je v svoji študiji identificiral različne kognitivne spretnosti, značilne za kritično razmišljanje, le-te so: analiza, sklepanje, interpretacija, razlaga in samoregulacija. Spodbujanje razvoja teh spretnosti je nujna osnova v kompetence usmerjenega izobraževanja.

Po Benner (2001), ki je preučevala razvoj kompetenc pri medicinskih sestrah od pripravništva dalje,

medicinske sestre kompetence razvijajo na osnovi delovnih izkušenj, ki jih pridobivajo skozi čas znotraj ponavljajočih se situacij, s katerimi se srečujejo v okviru svojega dela. Upoštevajoč njen teoretični model fenomen kompetence ni povezan le s časovno dimenzijo (delovno dobo), ampak tudi s preučevanjem teoretičnih podlag in razvojem sposobnosti, ki so rezultat realnih izkušenj pri delu. Študenti, novinci kot napredni začetniki, na začetku svoje profesionalne poti potrebujejo veliko podpore, vodenja in pomoči, saj je veliko novosti in pravil, ki se jih morajo najprej naučiti in zapomniti in potem uporabiti v realnih kliničnih situacijah (Čuk, 2014).

Obseg in vrste kompetenc, ki jih potrebujejo študenti zdravstvene nege, morajo temeljiti tudi na zaznanih potrebah v praksi, ki pripomorejo k oblikovanju študijskega kurikuluma. Kurikulum naj bi omogočal pridobivanje znanja in spretnosti, potrebnih za odgovorno in učinkovito delo na ključnih področjih kliničnega delovanja (Swider, et al., 2006). Ključno pri oblikovanju kurikuluma, usmerjenega v kompetence, je usmeritev v pomoč študentom pri uporabi njihovega znanja, spretnosti in sposobnosti za uspešno razrešitev problema, izvedbo naloge, sprejem odločitve oziroma vse, kar je mogoče opredeliti kot izid oziroma rezultat njihove aktivnosti. Kompetence omogočajo opis študijskih izidov na način, da so prenosljivi v prakso (Trobec, 2013).

Rezultati analiziranih raziskav kažejo, da je usmerjenost v klasične oblike učenja in poučevanja v visokošolskih programih zdravstvene nege še vedno prisotna, čeprav strokovnjaki s področja izobraževanja poudarjajo, da so pri usposabljanju študentov zdravstvene nege ključne v študenta usmerjene strategije, ki študenta aktivno vključijo v učni proces. Upoštevati je treba, da je učenje kompetenc možno le skozi izkušnjo, česar klasične metode učenja in poučevanja ne omogočajo. Skladno s priporočili Svetovne zdravstvene organizacije (WHO, 2001) v okviru Strategije razvoja izobraževanja za zdravstveno in babiško nego ter projekta Tuning – educational structures in Europe (Tuning general broschure, 2006) je treba v programe izobraževanja vključiti aktivne metode učenja in poučevanja, ki omogočajo uspešen razvoj splošnih in specifičnih poklicnih kompetenc. Specifičnost izobraževanja v zdravstveni negi je v odnosu do nekaterih drugih znanstvenih in strokovnih disciplin v tem, da se že v okviru formalnega študija prepletata teoretična in praktična dimenzija, ki bi ju bilo po mnenju številnih avtorjev (Zhang, et al., 2001; Meretoja, et al., 2003; Swider, et al., 2006) potrebno bolj sistematično povezati in s tem ustvariti ugodne pogoje za razvoj kompetenc. Reševanje problemov na različnih kliničnih področjih zahteva kritično razmišljanje.

Meretoja in sodelavci (2004) so ugotovili, da splošne in specifične kompetence omogočajo izvajanje specifičnih nalog v zdravstveni negi ter vključevanje teoretičnega znanja in spretnosti v prakso. Zato je klinično usposabljanje izjemno pomemben del izobraževanja medicinskih sester, v katerem študenti pridobivajo neposredne izkušnje v realnem kliničnem okolju pod nadzorom izkušenih in ustrezno izobraženih mentorjev. Poleg specifičnih poklicnih kompetenc razvijajo tudi splošne kompetence kot npr. sposobnost komunikacije, sodelovanje, timsko delo in druge medosebne spretnosti. Po ugotovitvah Benner (2001) in številnih drugih avtorjev (Meretoja, et al., 2002; Kantor, 2010; Zachary, 2011) je za razvoj kompetenc zdravstvene nege ključno klinično okolje, v katerem posameznik pridobiva izkušnje z delom, opazovanjem in vnašanjem znanstvenih dognanj v svoje delo. Nikakor pa ne moremo mimo njene ugotovitve, da imajo izkušeni in kompetentni praktiki znanje, ki ga je mogoče pridobiti le v kliničnem okolju (Benner, 2001). S tem dokazuje, da je klinično usposabljanje enakovreden del izobraževanja medicinskih sester, ki nikakor ne sme izostati. Še več, načrtovalci študijskih programov zdravstvene nege morajo posebno skrb posvetiti prav načrtovanju kliničnega usposabljanja. Prav tako pa je potrebno posameznikov profesionalni razvoj in razvoj njegovih kompetenc spremljati tudi v okviru njegovega dela v kliničnem okolju na osnovi strokovnih standardov, ki to omogočajo.

Pri učenju v kliničnem okolju je bistvenega pomena izkustveno učenje, pri katerem gre za izkušnjo (Kolb, 1984), ki jo spremljata refleksija in kritično razmišljanje. Kompetence, ki jih študenti razvijajo v kliničnem okolju, so tudi spretnosti sodelovanja, timskega dela in kakovostni delovni odnosi ter kompetence doseganja pričakovanih standardov kakovosti in varnosti v zdravstveni negi (Čuk, 2014).

Pridobivanje znanja in razvijanje kompetenc poteka postopno preko prenosa teoretičnih vsebin v prakso na različnih področjih kliničnega usposabljanja. S prenosom teoretičnega znanja v klinično prakso se študenti učijo obvladovanja različnih kliničnih situacij. Z refleksijo konkretnih izkušenj pri poučevanju in učenju zdravstvene nege v kliničnem okolju se le-ti razvijajo v bodoče samostojne strokovnjake.

Na podlagi pregleda literature lahko povzamemo, da se strokovnjaki strinjajo glede nujnosti tako splošnih kot specifičnih področnih kompetenc v zdravstveni negi. Ne glede na to, da okrog definiranja kompetenc vlada precejšnja zmeda, so si avtorji enotni glede metod učenja in poučevanja, katerih rezultat so kompetence. Kompetence študenti lahko pridobijo le na podlagi aktivnih metod učenja in poučevanja, ki omogočajo pridobivanje avtentičnih izkušenj v varnem okolju oziroma skozi praktično izkušnjo v kliničnem okolju (Trobec, 2013).

Zaključek

Ključne ugotovitve raziskave so, da obstaja velika zmeda okrog definicije kompetenc, istočasno pa

strinjanje, da so kompetence nujne za učinkovito in kakovostno zdravstveno nego. Prav tako so si strokovnjaki enotni glede metod učenja in poučevanja, ki omogočajo razvoj kompetenc, vendar se tudi zavedajo razkoraka v odnosu do dejanskega stanja. Skladno z ugotovitvijo, da je razvoj kompetenc možen le skozi izkušnjo, bi bilo potrebno posebno pozornost nameniti aktivnim metodam izobraževanja, ki le-to omogočajo, in zavedanju, da se razvoj kompetenc ne sme zaključiti z zaključkom šolanja.

Omejitve raziskave so predvsem v tem, da se leta naslanja skoraj izključno na tuje ugotovitve, ker je ta vidik v domači literaturi slabo zastopan, zato priporočamo sistematični pristop k raziskovanju kompetenc v slovenskem prostoru. Poleg posameznika je za profesionalni razvoj in razvoj kompetenc odgovoren tudi menedžment, ki z različnimi prijemi lahko spodbuja in spremlja njihov razvoj.

Literatura

Anderson, G.L. & Tredway, C.A., 2009. Transforming the nursing curriculum to promote critical thinking online. *Journal of Nursing Education*, 48(2), pp. 111-114.
http://dx.doi.org/10.3928/01484834-20090201-01
PMid:19260405

Archibald, P.J. & Bainbridge, D.D., 1994. Capacity and competence: nurse credentialing and privileging. *Nursing Management*, 25(4), pp. 49-56.
http://dx.doi.org/10.1097/00006247-199404000-00009
PMid:8159345

Barth, M., Godemann, J., Rieckmann, M. & Stoltenberg, U., 2007. Developing key competencies for sustainable development in higher education. *International Journal of Sustainability in Higher Education*, 8(4), pp. 416-430.
http://dx.doi.org/10.1108/14676370710823582

Benner, P., 2001. *From novice to expert: excellence and power in clinical nursing practice.* Addison-Wesley: Menlo Park, pp. 13-214.

Bowles, D.J., 2006. Active learning strategies ... not for the birds! *International Journal of Nursing Education Scholarship*, 3(1), pp. 1-11.
http://dx.doi.org/10.2202/1548-923X.1184
PMid:17049042

Chyung, S.Y., Stepich, D. & Cox, D., 2006. Building a competency-based curriculum architecture to educate 21st-century business practitioners. *The Journal of Education for Business,* 81(6), pp. 307-314.

Clapper, T.C., 2010. Role playing and simulation: returning to teaching for understanding. *Education Digest*, 75(8), pp. 39-43.

Clayton, L.H., 2006. Concept mapping: an effective, active teaching-learning method. *Nursing Education Perspective*, 27(4), pp. 197-203.
PMid:16921805

Comer, S.K., 2005. Patient care simulations: role playing to enhance clinical understanding. *Nursing Education Perspectives*, 26(6), pp. 357-361.
PMid:16430003

Čuk, V., 2014. *Mentorska vloga v kliničnem okolju: razvoj modela izkustvenega učenja v zdravstveni negi: doktorska disertacija.* Koper: Univerza na Primorskem, Pedagoška fakulteta, pp. 195-213.

DeBack, V. & Mentkowski, M., 1986. Does the baccalaureate make a difference? Differentiating nurse performance by education and experience. *Journal of Nursing Education*, 25(7), p. 275.
PMid:3020194

Doane, G., Pauly, B., Brown, H. & McPherson, G., 2004. Exploring the heart of ethical nursing practice: implications for ethics education. *Nursing Ethics*, 11(3), pp. 240-253.
http://dx.doi.org/10.1191/0969733004ne692oa
PMid:15176638

Edwards, H., Smith S., Courtney M., Finlayson, K. & Chapman H., 2004. The impact of clinical placement location on nursing students' competence and preparedness for practice. *Nurse Education Today,* 24(3), pp. 248-255.
http://dx.doi.org/10.1016/j.nedt.2004.01.003
PMid:15110433

Epstein, R.M. & Hundert, E.M., 2008. Defining and assessing professional competence. *JAMA*, 356(4), pp. 226-235.

Eraut, M., 2007. Learning from other people in the workplace. *Oxford Review of Education,* 33(4), pp. 403-422.
http://dx.doi.org/10.1080/03054980701425706

Facione, P.A., 1990. Critical thinking: a statement of expert consensus for purposes of educational assesment and instruction. The Delphy report: research findings and recommendation prepared for the committee on pre-college philosophy. *ERIC Document Reproduction Service*, pp. 315-423.

Garrison, R.D., Anderson, T. & Archer, W., 2001. Critical thinking and computer conferencing: a model and tool to assess cognitive presence. *American Journal of Distance Education*, 15(1) pp. 7-23.
http://dx.doi.org/10.1080/08923640109527071

Garside, J.R. & Nhemachena, J.Z., 2012. A concept analysis of competence and its transition in nursing. *Nurse Education Today*, 33(5), pp. 541-545.

Giancarlo, C.A. & Facione, P.A., 2001. A look across four years at the disposition toward critical thinking among undergraduate students. *The Journal of General Education*, 50(1), pp. 29-55.
http://dx.doi.org/10.1353/jge.2001.0004

Holton, J.A., 2010. The coding process and its challenges. *Grounded Theory Rewiev*, 9(1), pp. 21-40.

Istenič Starčič, A., 2006. *Mentorstvo v kliničnem okolju*. Ljubljana: Univerza v Ljubljani, Filozofska fakulteta, pp. 42-71.

Istomina, N., Suominen, T., Razbadauskas, A., Martinkenas, A., Meretoja, R. & Leino-Kilpi, H., 2011. Competence of nurses and factors associated with it. *Medicina (Kaunas)*, 47(4), pp. 230-237.

Jonnaert, P., Masciotra, D., Barrette, J., Morel, D. & Mane Y., 2007. From competence in the curriculum to the competence in action. *Prospects,* 37(2), pp. 187-203.
http://dx.doi.org/10.1007/s11125-007-9027-9

Jormsri, P., Kunaviktikul, W., Ketefian, S. & Chaowalit, A., 2005. Moral competence in nursing practice. *Nursing Ethics*, 12(6), pp. 582-594.
http://dx.doi.org/10.1191/0969733005ne828oa
PMid:16312087

Kantor, S.A., 2010. Pedagogical change in nursing education: one instructor's experience. *The Journal of Nursing Education*, 49(7), pp. 414-417.
http://dx.doi.org/10.3928/01484834-20100331-06
PMid:20411860

Keating, B.S., 2006. *Curriculum development and evaluation in nursing.* Philadelphia: Lippincot Williams & Wilkins, pp. 5-32.

Khomeiran, T.R., Yekta, Z.P., Kiger, A.M. & Ahmadi, F., 2006. Professional competence: factors described by nurses as influencing their development. *International Nursing Review*, 53(1), pp. 66-72.
http://dx.doi.org/10.1111/j.1466-7657.2006.00432.x
PMid:16430763

Kiger M.A., 2009. *Teaching for health.* Churchill Livingstone: Elsevier, pp. 64-189.

Koerner, J.G., 2003. The virtues of the virtual world: enhancing the technology/knowledge professional interface for life-long learning. *Nursing Administration Quarterly*, 27(1), pp. 9-17.
http://dx.doi.org/10.1097/00006216-200301000-00005
PMid:12674064

Kolb, D., 1984. *Experiental learning: experience as the source of learning and development.* Englewood Cliffs, New Jersey: Prentice-Hall, pp. 21-26, 256-311.

McCready, T., 2007. Portfolios and the assessment of competence in nursing: a literature review. *International Journal of Nursing Study*, 44 (1), pp. 143-151.

Meretoja, R., Eriksson, E. & Leino-Kilpi, H., 2002. Indicators for competent nursing practice. *Journal of Nursing Management*, 10(2), pp. 95-102.
http://dx.doi.org/10.1046/j.0966-0429.2001.00299.x
PMid:11882110

Meretoja, R. & Leino-Kilpi, H., 2003. Comparison of competence assessments made by nurse managers and practising nurses. *Journal of Nursing Management*, 11(6), pp. 404–409.
http://dx.doi.org/10.1046/j.1365-2834.2003.00413.x
PMid:14641722

Meretoja, R., Isoaho, H. & Leino-Kilpi, H., 2004. Nurse competence scale: development and psychometric testing. *Journal of Advanced Nursing*, 47(2), pp. 124-133.
http://dx.doi.org/10.1111/j.1365-2648.2004.03071.x
PMid:15196186

Mortel, T.F. & Bird, J.L., 2010. Continuous curriculum review in a bachelor of nursing program: preventing curriculum drift in improving quality. *Journal of Nursing Education*, 49(10), pp. 592-595.
http://dx.doi.org/10.3928/01484834-20100730-05
PMid:20669873

Nelson, D.L. & Blenkin, C., 2007. The power of online role- play simulations: technology in nursing education. *International Journal of Nursing Education Scholarship*, 4(1), pp. 1-12.

Nelson K., 2006. Ethical theories and principles. In: Bosek, M.S.D. & Savage, T.A. eds. *The ethical component of nursing education.* Philadelphia: Lippincott Williams & Wilkins, pp. 3-30.

Pekljaj, C., 2006. Definiranje učiteljskih kompetenc - začetni korak za prenovo pedagoškega študija. In: Peklaj, C., ed. *Teorija in praksa v izobraževanju učiteljev.* Ljubljana: Center za pedagoško izobraževanje Filozofske fakultete, pp. 19-28.

Riddell, T., 2007. Critical assumptions: thinking critically abouth critical thinking. *Journal of Nursing Education Today*, 46(3), pp. 121.

Sauvé, L., Renaud, L., Kaufman, D. & Marquise, J.-S., 2007. Distinguishing between games and simulations: a systematic review. *Educational Technology & Society*, 10(3), pp. 247-256.

Simpson, E. & Courtney, M., 2008. Implementation and evaluation of critical thinking strategies to enhance critical thinking skills in Middle Eastern nurses. *International Journal of Nursing Practice*, 10(6), pp. 449-454.
http://dx.doi.org/10.1111/j.1440-172X.2008.00719.x
PMid:19126073

Swider, S., Levin, P., Ailey, S., Breakwell, S., Cowell, J., McNaughton, D., et al., 2006. Matching a graduate curriculum in public/community nursing to practice competencies: the Rush University experience. *Public Health Nursing,* 23(2), pp. 190-195.
http://dx.doi.org/10.1111/j.1525-1446.2006.230211.x
PMid:16684194

WHO - World Health Organization, 2001. *European Strategy for nursing and midwifery education*. Available at: http://www.euro.who.int/__data/assets/pdf_file/0005/125744/E72918.pdf [9. 8. 2011].

Trobec, I., 2013. *Primerjava ustreznosti učnih okolij pri razvijanju etičnih kompetenc študentov zdravstvene nege: doktorska disertacija*. Koper: Univerza na Primorskem, Pedagoška fakulteta, pp. 153-175.

Tuning general broschure, 2006. Introduction to tuning. *European union directorate of education and culture*. Brusseles. Available at: http://www.unideusto.org/tuningeu/images/stories/documents/General_Brochure_final_version.pdf [14. 3. 2011].

Tzeng, H.M. & Ketefian, S., 2003. Demand for nursing competencies: an exploratory study in Taiwan's hospital system. *Journal of Clinical Nursing*, 12(4), pp. 509-518. http://dx.doi.org/10.1046/j.1365-2702.2003.00738.x PMid:12790864

Vacek, J.E., 2009. Using a conceptual approach with concept mapping to promote critical thinking. *The Journal of Nursing Education*, 48(1), pp. 45-48. PMid:19227756

Vanaki, Z. & Memarian, R., 2009. Professional ethics: beyond the clinical competency. *Journal of Professional Nursing*, 25(5), pp. 285-291. http://dx.doi.org/10.1016/j.profnurs.2009.01.009 PMid:19751933

Wangensteen, S., Johansso, I.S., Björkström, M.E. & Nordström, G., 2010. Critical thinking dispositions among newly graduated nurses. *Journal of Advanced Nursing*, 66(10), pp. 2170-2181. http://dx.doi.org/10.1111/j.1365-2648.2010.05282.x PMid:20384637; PMCid:PMC2984541

Wass, V., Van der Vleuten, C., Shatzer, J. & Jones, R., 2001. Assessment of clinical competence. *The Lancet*, 35(9260), pp. 945-949.

Whittemore, R. & Knafl, K., 2005. The integrative review: updated methodology. *Journal of Advanced Nursing*, 52(5), pp. 546-553. http://dx.doi.org/10.1111/j.1365-2648.2005.03621.x PMid:16268861

Zachary, L.J., 2011. *The mentor's guide: facilitating effective learning relationships*. 6th ed. San Francisco: Jossey Bass, pp. 15-29.

Zhang, Z.X., Luk, W., Arthur, D. & Wong, T., 2001. Nursing competencies: personal characteristics contributing to effective nursing performance. *Journal of Advanced Nursing*, 33(4), pp. 467-474. http://dx.doi.org/10.1046/j.1365-2648.2001.01688.x PMid:11251734

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Pregledni znanstveni članek/Review article

Telesna dejavnost in zdravje žensk v pomenopavzi
Physical activity and women's health in postmenopause

Maja Marn Radoš, Darija Šćepanović

Ključne besede: srčno-žilne bolezni; depresija; osteoporoza; vročinski oblivi; urinska inkontinenca

Key words: cardiovascular diseases; depression; osteoporosis; hot flushes; urinary incontinence

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IZVLEČEK

Uvod: Kot posledica pomanjkanja estrogenov se po menopavzi pojavi večja verjetnost nastanka kardiovaskularnih bolezni, osteoporoze, depresije in urinske inkontinence. Namen članka je pregled literature in predstavitev rezultatov raziskav, ki so proučevale vpliv telesne dejavnosti na kardiovaskularni in vazomotorni sistem, na urogenitalno in vezivno tkivo ter na duševno zdravje pri ženskah v pomenopavzi.

Metode: Iskanje strokovne in znanstvene literature je bilo opravljeno s pomočjo bibliografskih baz podatkov COBIB.SI, PubMed, CINAHL, EMBASE in registra študij Cochrane Library. Iskanje je bilo omejeno na besedila, dostopna na spletu, v slovenščini ali angleščini (ali drugih jezikih, če so članki vsebovali izvlečke v angleščini), izdana od januarja 2000 do decembra 2012. Glede na vključitvene in izključitvene kriterije je bilo v pregled zajetih enajst randomiziranih kontroliranih raziskav, ki so bile glede na tematiko razdeljene v pet skupin.

Rezultati: Pokazal se je pozitiven vpliv redne telesne dejavnosti na izražanje simptomov, ki so posledica pomanjkanja estrogena v telesu žensk v pomenopavzi. Redna telesna dejavnost ima najboljši vpliv na kardiovaskularni sistem, mentalno zdravje, urinsko inkontinenco in osteoporozo, glede njenega vpliva na izražanje vazomotornih simptomov pa so mnenja deljena.

Diskusija in zaključek: Najkoristnejša telesna dejavnost za zdravje žensk v pomenopavzi je aerobna vadba zmerne intenzitete. Potrebne so nadaljnje raziskave o vplivu telesne dejavnosti na izražanje vazomotornih simptomov pri ženskah v pomenopavzi.

ABSTRACT

Introduction: Postmenopausal estrogen deficiency is associated with a number of health conditions, including cardiovascular disease, osteoporosis, depression and urinary incontinence. The purpose of the study is to discuss the information retrieved from professional and scientific sources addressing the interaction of physical activity and cardiovascular and vasomotor system, genitourinary and connective tissues as well as mental health in women in postmenopause.

Methods: Literature review was carried out manually and via electronic databases COBIB.SI, PubMed, CINAHL, EMBASE and in Cochrane Library register. The literature search was limited to publications in the Slovene, English and other languages where the texts were accompanied by an abstract in English. The study was limited to the literature published from January 2000 till December 2012. According to eligibility criteria, 11 randomised controlled trials were included into the review, thematically divided into five groups.

Results: It has been established that regular physical activity has a positive influence on the symptoms resulting from the estrogenic deficiency in postmenopausal women. Physical activity exerts a positive effect on cardiovascular system, mental health, urine incontinence and osteoporosis while its impact on vasomotor symptoms remains unclear.

Discussion and conclusion: Postmenopausal women are advised to perform regular and moderate aerobic exercises which should be included in the preventive health programs attended by this population of women. Further research is necessary to clearly determine the impact of physical activity on vasomotor symptoms in women in postmenopause.

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Uvod

Na svoji življenjski poti ženska preide tri obdobja – prvo traja od rojstva do pubertete, ki je priprava za drugo obdobje, tj. obdobje spolne zrelosti in plodnosti, tretje obdobje pa je čas, ko reproduktivna doba oziroma reproduktivna sposobnost preneha. Tretja doba se prične z zadnjo menstruacijo. V tej fazi življenja je ženska zaščitena pred stresi in problemi, povezanimi z nosečnostjo, za kar pa plača visoko ceno, prenehanje delovanja jajčnikov namreč povzroči spremembe hormonske aktivnosti drugih žlez z notranjim izločanjem. Obdobje, ki označuje leta pred in po menopavzi imenujemo klimakterij (Andolšek-Jeras, 1997). Pojav in trajanje klimakterija v literaturi različno opredeljujejo. Meden-Vrtovec (2002) to obdobje deli na štiri faze:

- predmenopavza je faza, ki se začne z menstruacijskimi motnjami, psihičnimi in somatskimi spremembami lahko tudi več let pred menopavzo;
- perimenopavza je obdobje, ko so endokrinološke, biološke in klinične značilnosti bližajoče menopavze že očitne, in vsaj prvo leto po menopavzi;
- menopavza je trajno prenehanje menstruacije;
- pomenopavza je obdobje od menopavze naprej; v zgodnji pomenopavzi (leto ali dve po menopavzi) so v ospredju procesi adaptacije in reakcije organizma na spremenjeno notranje okolje.

Naravno menopavzo prepoznamo po dvanajstih mesecih amenoreje, ki nastopi brez drugih patoloških ali psiholoških vzrokov (Abernethy, 2008). Simptomi in znaki, ki se pojavijo zaradi hormonskih sprememb med nastankom menopavze in v pomenopavzi, v splošnem vključujejo fiziološki vidik (boleči sklepi, zmanjšanje mineralne kostne gostote, infekcije sečil, urinska inkontinenca, suhost nožnice, prolaps organov male medenice, spremembe teksture kože, boleči spolni odnosi, kardiovaskularne bolezni, diabetes ipd.) (Al-Qutob, 2001; Meden-Vrtovec, 2002; Abernethy, 2008), vazomotorni vidik (vročinski oblivi, nočno znojenje, mrzlica, povečano znojenje) (Al-Qutob, 2001; Lermer, et al., 2011; Collins Fantasia & Sutherland, 2014) in čustveni vidik (depresija, razdražljivost, menjave razpoloženja, nespečnost, zaskrbljenost, živčnost) (Al-Qutob, 2001; Llaneza, et al., 2012).

Že dolgo je znan pozitiven vpliv telesne dejavnosti na zdravje. Redna telesna dejavnost vpliva na izboljšanje telesne sestave glukozne homeostaze in občutljivosti na inzulin, povečanje mineralne kostne gostote, zmanjšanje krvnih trigliceridov in uravnavanje holesterola ter znižanje krvnega tlaka, kar vse pripomore k zmanjšani incidenci kroničnih bolezni, kot so diabetes, osteoporoza, kardiovaskularne bolezni, hipertenzija, debelost in rakava obolenja (Kirkegard, 1998a; 1998b; Thompson, et al., 2003). Redna telesna dejavnost je povezana z izboljšanjem duševnega zdravja (Warburton, et al., 2006; Abernethy, 2008). Iz navedenega je možno sklepati, da bi redna telesna dejavnost lahko zmanjšala pojavnost simptomov in znakov, ki običajno nastopijo v pomenopavzi.

Namen in cilj

Namen prispevka je na podlagi pregleda literature predstaviti rezultate raziskav, ki so proučevale vpliv telesne dejavnosti na kardiovaskularni in vazomotorni sistem, na urogenitalno in vezivno tkivo ter na duševno zdravje pri ženskah v pomenopavzi. Zanimalo nas je, ali je možno na pojav simptomov in znakov, ki se pojavljajo zaradi hormonskega neravnovesja pri ženskah po menopavzi, vplivati s telesno dejavnostjo in kako je mogoče to izvesti ter ali telesna dejavnost zmanjša pojavnost kardiovaskularnih bolezni, vazomotornih simptomov, osteoporoze, depresije in urinske inkontinence pri ženskah v pomenopavzi.

Metode

Metode pregleda

Uporabljena je bila deskriptivna metoda dela – pregled strokovne in znanstvene literature. Vključitveni kriteriji za izbor literature:

- vrsta raziskav: randomizirane kontrolirane raziskave, ki so obravnavale področje telesne dejavnosti ter simptomov in znakov menopavze (kardiovaskularne bolezni, depresija, vazomotorni simptomi, osteoporoza in urinska inkontinenca);
- vzorec sodelujočih: ženske v pomenopavzi ali v perimenopavzi, vazomotorni simptomi in depresija se namreč začnejo izražati že v perimenopavznem obdobju;
- vrste intervencij: v pregled so bile vključene raziskave, ki so vključevale: a) vodeno aerobno vadbo, hojo, tek; b) nižje intenzivno vadbo, jogo; c) vadbo za povečanje mišične jakosti in vzdržljivosti; d) vadbo mišic medeničnega dna ali električno stimulacijo mišic medeničnega dna;
- vrste opazovanih izvidov: vključene so bile raziskave, kjer so opravljali: a) meritve krvnega tlaka, kardiorespiratorne vzdržljivosti, nivoja serumskih lipidov, HDL- in LDL-holesterola, telesne sestave in ostale meritve, pomembne za določanje tveganja za kardiovaskularne bolezni; b) meritve vazomotornih simptomov: nočno potenje, vročinski oblivi, mrzlica; c) meritve mineralne kostne gostote, mišične jakosti in vzdržljivosti in ostalih parametrov, pomembnih za določanje osteopenije oz. stopnje osteoporoze; d) meritve simptomov depresije, psihološkega stanja; e) meritve volumna izgubljenega urina, jakosti mišic medeničnega dna, subjektivnega zaznavanja stresne urinske inkontinence in ostale meritve, pomembne za določanje urinske inkontinence.

Izključitveni kriteriji za izbor literature so bili: raziskave, kjer je bila v vzorec sodelujočih zajeta preostala populacija; raziskave, kjer so proučevali druge simptome

menopavze; raziskave, ki so obravnavale učinkovitost medikamentoznega ali kirurškega zdravljenja kardiovaskularnih bolezni, osteoporoze, depresije, urinske inkontinence oz. vazomotornih simptomov.

Iskanje literature je bilo opravljeno s pomočjo bibliografskih baz podatkov COBIB.SI (Vzajemna bibliografsko-kataložna baza podatkov), PubMed (Public Medline), CINAHL (Cumulative Index to Nursing and Allied Health Literature), EMBASE (The Excerpta Medica database) in registra študij Cochrane Library. Iskanje je bilo omejeno na besedila, izdana od januarja 2000 do decembra 2012, objavljena v slovenščini, angleščini ali drugih jezikih, če so vsebovala izvlečke v angleščini. Uporabljene so bile ključne besede v različnih kombinacijah: menopause, physical activity, older women, cardiovascular disease, mental health, osteoporosis, vasomotor system, urinary incontinence oz. menopavza, starejša ženska, kardiovaskularne bolezni, mentalno zdravje, osteoporoza, vazomotorni sistem, urinska inkontinenca.

Rezultati pregleda

S ključnimi besedami in časovno omejitvijo je bilo v bibliografskih bazah podatkov dobljenih preko 6000 zadetkov. Pregledanih je bilo 52 raziskav, v pregled literature je bilo na podlagi vključitvenih in izključitvenih kriterijev vključenih enajst randomiziranih kontroliranih raziskav (Chien, et al., 2000; Asikainen, et al., 2003; Lindh-Astrand, et al., 2004; Spruijt, et al., 2003; Kemmler, et al., 2004; Church, et al., 2007; Elavsky & McAuley, 2007; Chattha, et al., 2008; Dalleck, et al., 2009; Bolton, et al., 2012; Pereira, et al., 2012), ostale kriterijem niso ustrezale.

Ocena kakovosti pregleda in opis obdelave podatkov

Izbor literature je temeljil na dostopnosti, znanstvenosti, vsebinski ustreznosti in aktualnosti. Vključenih je enajst randomiziranih kontroliranih raziskav. Članki so obdelani s kvalitativno analizo vsebine.

Rezultati

Zaradi lažje preglednosti so rezultati pregleda literature razdeljeni v pet tematskih skupin.

Tabela 1: *Telesna dejavnost in kardiovaskularni sistem*
Table 1: *Physical activity and cardiovascular system*

Avtor/ji/ Authors	**Populacija/ Population**	**Trajanje raziskave/ Duration of research**	**Telesna dejavnost/ Physical activity**	**Meritve/ Measurements**	**Opis rezultatov/ Description of results**
Dalleck, et al. (2009)	33 neaktivnih žensk v pomenopavzi	12 tednov	- 45 min petkrat na teden, 50 % VO_2 max - 30 min, petkrat na teden, 50 % VO_2 max - kontrolna skupina brez telesne dejavnosti	obseg pasu, telesna kompozicija, HDL-holesterol, VO_2 max	Zaznana je pozitivna povezava med trajanjem vadbe in kardiorespiratorno vzdržljivostjo, telesno maso, telesno kompozicijo, obsegom pasu, HDL-holesterolom. VO_2 max se bolj poveča pri skupini s 45-minutno vadbo.
Church, et al. (2007)	464 neaktivnih žensk v pomenopavzi z visokim krvnim tlakom	6 mesecev	- aerobna vadba, intenziteta, določena kot 50 % VO_2 max - kontrolna skupina	sistolični in diastolični krvni tlak, poraba VO_2 max	VO_2 max je večji pri vadbeni skupini. Pomembnih razlik v spremembi diastoličnega ali sistoličnega krvnega tlaka ni bilo zaznati.
Asikainen, et al. (2003)	246 neaktivnih žensk v pomenopavzi		trening hoje: - intenziteta 65 % VO_2 max s porabo 300 kcal: enkrat ali dvakrat na dan - vadba petkrat na teden pri: - 55 % VO_2 max, 300 kcal - 45 % VO_2 max, 300 kcal - 55 % VO_2 max, 200 kcal - 45 % VO_2 max, 200 kcal	sistolični in diastolični krvni tlak, serumski lipoproteini, krvna glukoza, inzulin na tešče in med dveurnim testom glukozne tolerance	Sistolični krvni tlak, serumski lipoproteini in nivo inzulina se pri nobeni skupini niso spremenili. Pozitivni učinek na diastolični krvni tlak in krvno glukozo se je pokazal pri skupini z vadbo pri 65 % VO_2 max in tedensko porabo 1500 kcal.

Legenda/Legend: VO_2 max – maksimalna aerobna kapaciteta/maximal oxygen consumption; največja količino kisika, ki jo lahko organizem porabi v eni minuti/maximum oxygen consumption per minute

Telesna dejavnost in kardiovaskularni sistem

Vključene so bile tri randomozirane kontrolirane raziskave (Asikainen, et al., 2003; Church, et al., 2007; Dalleck, et al., 2009), ki so proučevale vpliv telesne dejavnosti na kardiovaskularni sistem oz. na dejavnike tveganja za nastanek kardiovaskularnih bolezni. Rezultati so prikazani v Tabeli 1.

Telesna dejavnost in vazomotorni sistem

Vključeni sta bili dve randomizirani kontrolirani raziskavi (Lindh-Astrand, et al., 2004; Chattha, et al., 2008), ki sta proučevali vpliv telesne dejavnosti na izražanje vazomotornih simptomov. Rezultati so prikazani v Tabeli 2.

Tabela 2: *Telesna dejavnost in vazomotorni simptomi*
Table 2: *Physical activity and vasomotor symptoms*

Avtor/ji/ Authors	**Populacija/ Population**	**Trajanje raziskave/ Duration of research**	**Telesna dejavnost/ Physical activity**	**Meritve/ Measurements**	**Opis rezultatov/ Description of results**
Chattha, et al. (2008)	120 žensk med 40. in 55. letom starosti	8 tednov	- joga: dvanajst položajev, vadba dihanja in meditacija - telesna dejavnost pod nadzorom trenerja (ena ura na dan, petkrat na teden)	vazomotorni simptomi, zaznani stres	Med skupinama se je pokazala opazna razlika v zaznavanju vazomotornih simptomov in stresa, boljši je bil vpliv joge.
Lindh-Astrand, et al. (2004)	30 neaktivnih žensk v pomenopavzi z vazomotornimi simptomi	12 tednov	- telesna dejavnost trikrat na teden - oralna terapija z estradioli	vazomotorni simptomi; nočno potenje in vročinski oblivi	Redna telesna vadba lahko zmanjša vazomotorne simptome in poveča kakovost življenja pri ženskah po menopavzi.

Tabela 3: *Telesna dejavnost in osteoporoza*
Table 3: *Physical activity and osteoporosis*

Avtor/ji/ Authors	**Populacija/ Population**	**Trajanje raziskave/ Duration of research**	**Telesna dejavnost/ Physical activity**	**Meritve/ Measurements**	**Opis rezultatov/ Description of results**
Bolton, et al. (2012)	39 žensk v pomenopavzi z osteopenijo	52 tednov	- vadba za povečanje mišične jakosti in izboljšanje ravnotežja trikrat na teden, vadba s poskoki doma - kontrolna skupina brez telesne dejavnosti	mineralna gostota kosti vratu stegnenice in ledvene hrbtenice, mišična jakost, ravnotežje, kakovost življenja	V vadbeni skupini se je mineralna gostota kosti v povprečju povečala za 0,5 % in v kontrolni zmanjšala za 0,9 %. Povečala se je kakovost življenja, vzdržljivost mišic trupa in zgornjih udov.
Kemmler, et al. (2004)	83 žensk v pomenopavzi	26 mesecev	- skupinska vadba dvakrat na teden po 60–70 min pri 65–85 % HR max in vadba doma dvakrat na teden po 25 min - kontrolna skupina brez telesne dejavnosti	največja mišična jakost in kardiovaskularna vzdržljivost, mineralna gostota kosti ledvene hrbtenice, vratu stegnenice in podlaktnice, markerji kostne formacije in resorpcije, nivo krvnih lipidov	Namenski vadbeni program lahko občutno poveča mišično jakost (36,5–39,3 %) in zmanjša izgubljanje kostne mase ter bolečino v križu, zniža nivo holesterola za 5 % in nivo trigliceridov za 14,2 % pri ženskah v pomenopavzi z osteopenijo.
Chien, et al. (2000)	43 žensk v pomenopavzi z osteopenijo	24 tednov	- aerobna vadba: 30 min hoje pri 70 % VO_2 max in 10 min na steperju (20 cm) trikrat na teden - kontrolna skupina brez telesne dejavnosti	mineralna gostota kosti ledvene hrbtenice in vratu stegnenice, telesna sestava, mišična jakost in vzdržljivost, gibljivost	Aerobna vadba poveča jakost štiriglave stegenske mišice, mišično vzdržljivost, VO_2 max, mineralno gostoto kosti ledvene hrbtenice (2 %) in vratu stegnenice (6,8 %).

Legenda/Legend: HR max – maksimalni srčni utrip/maximal heart rate; VO_2 max – maksimalna aerobna kapaciteta/maximal oxygen consumption; največja količino kisika, ki jo lahko organizem porabi v eni minuti/maximum oxygen consumption per minute

Telesna dejavnost in osteoporoza

Tri randomizirane kontrolirane raziskave (Chien, et al., 2000; Kemmler, et al., 2004; Bolton, et al., 2012) so proučevale vpliv telesne dejavnosti na mineralno kostno gostoto in sestavo kosti pri ženskah v pomenopavzi. Rezultati so prikazani v Tabeli 3.

Telesna dejavnost in depresija

Vpliv telesne dejavnosti na duševno zdravje oz. na depresijo je proučevala ena randomizirana kontrolirana raziskava (Elavsky & McAuley, 2007). Rezultati so prikazani v Tabeli 4.

Telesna dejavnost in urinska inkontinenca

V to skupino sta bili vključeni dve randomizirani kontrolirani raziskavi (Spruijt, et al., 2003; Pereira, et al., 2012), ki sta proučevali vpliv vadbe mišic medeničnega dna na njihovo jakost in s tem na stresno urinsko inkontinenco. Rezultati raziskav so predstavljeni v Tabeli 5.

Diskusija

Hormonske spremembe med nastankom menopavze vplivajo na številne fiziološke spremembe pri ženskah. Telesna dejavnost dokazano pozitivno vpliva na nekatere simptome, ki se pojavijo kot posledica nastopa menopavze in posledičnega zmanjšanja estrogenov v krvi. Namen prispevka je bil predstaviti rezultate raziskav, ki so proučevale vpliv telesne dejavnosti na kardiovaskularni in vazomotorni sistem, na urogenitalno in vezivno tkivo ter na duševno zdravje pri ženskah v pomenopavzi.

Kot posledica pomanjkanja estrogenov se po menopavzi med drugim pojavi tudi večja verjetnost nastanka srčno-žilnih bolezni, zaradi

Tabela 4: *Telesna dejavnost in depresija*
Table 4: *Physical activity and depression*

Avtor/ji/ Authors	Populacija/ Population	Trajanje raziskave/ Duration of research	Telesna dejavnost/ Physical activity	Meritve/ Measurements	Opis rezultatov/ Description of results
Elavsky & McAuley (2007)	164 neaktivnih žensk	4 mesece	- hoja trikrat na teden po 60 min z ogrevanjem in ohlajanjem pri 50–75 % HR max - joga dvakrat na teden po 90 min - kontrolna skupina brez telesne dejavnosti	demografski podatki, simptomi depresije in menopavze, psihološko stanje, fizično zdravje, telesna sestava, kardiorespiratorna vzdržljivost	Hoja in joga izboljšata razpoloženje in kakovost življenja. Zmanjšanje simptomov menopavze pomembno vpliva na zmanjšanje simptomov depresije.

Legenda/Legend: HR max – maksimalni srčni utrip/maximal heart rate

Tabela 5: *Telesna dejavnost in urinska inkontinenca*
Table 5: *Physical activity and urinary incontinence*

Avtor/ji/ Authors	Populacija/ Population	Trajanje raziskave/ Duration of research	Telesna dejavnost/ Physical activity	Meritve/ Measurements	Opis rezultatov/ Description of results
Pereira, et al. (2012)	54 žensk v pomenopavzi s stresno urinsko inkontinenco	6 tednov	dvakrat na teden po 40 min: - vadba MMD z vaginalnimi utežmi - samostojna vadba MMD - kontrolna skupina brez telesne dejavnosti	volumen izgubljenega urina s testom s plenčnimi predlogami, jakost mišic medeničnega dna in kakovost življenja	Zaznano je pomembno izboljšanje jakosti MMD in zmanjšanje uhajanja urina pri obeh vadbenih skupinah; med njima ni bilo pomembnih razlik. Izboljšala se je kakovost življenja.
Spruijt, et al. (2003)	35 žensk v pomenopavzi	8 tednov	- vsakodnevna vadba MMD - električna stimulacija MMD vsak drugi dan	volumen izgubljenega urina s testom s plenčnimi predlogami, jakost MMD, subjektivne spremembe simptomov stresne UI	Pomembnih razlik v rezultatih med skupinama ni zaznati. 29,2 oz. 27,3 % žensk poroča o izboljšanju simptomov stresne UI, izboljšala se je jakost MMD.

Legenda/Legend: MMD – mišice medeničnega dna/pelvic floor muscles; UI – urinska inkontinenca/urinary incontinence

česar kardiovaskularne bolezni ženske prizadenejo drugače kot moške (Kirkegard, 1998a). Rezultati vseh pregledanih raziskav so pokazali pozitiven vpliv telesne dejavnosti na zmanjšanje dejavnikov tveganja za kardiovaskularne bolezni, zaradi česar vadba pozitivno vpliva tudi na pojavnost obolevnosti in smrtnosti žensk v pomenopavzi zaradi kardiovaskularnih bolezni. Raziskava Dalleck and colleagues (2009) poroča o pozitivnih vplivih telesne dejavnosti na kardiorespiratorni sistem, na zmanjšanje telesne mase, boljšo telesno kompozicijo, znižanje HDL-holesterola in na zmanjšanje obsega pasu. Večji vpliv na kardiorespiratorni sistem ima dlje časa trajajoča telesna dejavnost (Church, et al., 2007; Dalleck, et al., 2009). Raziskave so pokazale opazno znižanje diastoličnega krvnega tlaka po telesni dejavnosti večje intenzitete (65 % VO_2 max) (Askainen, et al., 2003), pri nižji intenziteti telesne dejavnosti pa ni bilo vpliva niti na sistolični niti na diastolični krvni tlak (Askiainen, et al., 2003; Church, et al., 2007). Iz rezultatov lahko sklepamo, da je vpliv telesne dejavnosti na krvni tlak odvisen od njene intenzitete, zato morajo biti zdravstveni delavci pri sestavljanju preventivnih vadbenih programov, katerih namen je znižanje krvnega tlaka, pozorni na primerno intenziteto telesne dejavnosti, ki naj bo vsaj 65 % VO_2 max.

Ena izmed posledic pomanjkanja estrogena že v perimenopavzi in tudi kasneje v pomenopavzi je pojav vazomotornih simptomov, od katerih sta najpogostejša nočno znojenje in vročinski oblivi (Kirkegard, 1998a). Rezultati obeh raziskav o vplivu telesne dejavnosti na pogostost in intenziteto nočnega znojenja in vročinskih oblivov so pokazali zmanjšanje vazomotornih simptomov pri ženskah, ki so bile telesno dejavne (Lindh-Astrand, et al., 2004; Chattha, et al., 2008). Raziskava Lindh-Astrand, et al. (2004) je pokazala pozitiven vpliv telesne dejavnosti, kjer je pogostost vročinskih oblivov po dvanajsttedenskem vadbenem programu ostala enaka ali pa se je zmanjšala za eno tretjino. Po podaljšanju vadbenega programa za 24 tednov se je pogostost vročinskih oblivov zmanjšala še za polovico. Toda zaradi majhnega števila preiskovank v vadbeni skupini vzorec te raziskave ni reprezentativen. V raziskavi Chattha and colleagues (2008) so ugotovili večje izboljšanje vazomotornih simptomov v skupini, ki je vadila jogo, kot v kontrolni skupini z enostavnimi vajami. Pregled presečnih in randomiziranih kontroliranih raziskav o vplivu telesne dejavnosti na vazomotorne simptome poroča o neskladju rezultatov; nekatere raziskave poročajo o povečanju vazomotornih simptomov pri telesno bolj dejavnih ženskah, druge pa o njihovem zmanjšanju (Sternfeld, 2010). Za natančnejše in zanesljivejše zaključke bi bile potrebne nadaljnje raziskave z večjim številom preiskovank v programu telesne dejavnosti. Obstoječe raziskave namreč podajajo premalo dokazov o učinkovitosti telesne dejavnosti pri zdravljenju vazomotornih simptomov, kar potrjujejo tudi rezultati drugih primerljivih preglednih raziskav (Daley, et al., 2009; 2011).

Izguba mineralne gostote kosti se pri ženskah znatno pospeši konec perimenopavze in se v podobnem tempu nadaljuje tudi v pomenopavzi (Finkelstein, et al., 2008). Raziskava Snelling and colleagues (2001) je dokazala vpliv starosti, rase, dednosti, količine telesne dejavnosti in indeksa telesna mase na pojav osteoporoze. Pregledane raziskave so dokazale pozitiven vpliv telesne dejavnosti na mineralno gostoto kosti (Chien, et al., 2000; Kemmler, et al., 2004; Bolton, et al., 2012). Vse tri raziskave so dokazale povečanje mineralne gostote kosti v ledvenem delu hrbtenice (L2–L4) in v vratu stegnenice. Iz rezultatov raziskave Kemmler, et al. (2004) lahko sklepamo, da telesna dejavnost ne more povsem zaustaviti kostne razgradnje, lahko pa jo upočasni, kar pripomore h kasnejšemu nastanku osteoporoze. Najboljši rezultati v izboljšanju mineralne gostote kosti so se pokazali pri vadbi, ki je zajemala hitro hojo in tek (Chien, et al., 2000; Kemmler, et al., 2004), hojo po stopnicah (Chien, et al., 2000; Kemmler, et al., 2004), poskoke (Bolton, et al., 2012) in aerobno vadbo (Kemmler, et al., 2004). Te oblike telesne dejavnosti so varne in naj bojo zastopane v preventivnih programih za preprečevanje osteoporoze. Poleg vrste telesne dejavnosti sta pomembna pogostost in trajanje izvajanja telesne dejavnosti – vsaj trikrat na teden (Chien, et al., 2000; Kemmler, et al., 2004; Bolton, et al., 2012) po 40–60 min (Chien, et al., 2000; Kemmler, et al., 2004) najbolje v skupini pod nadzorom strokovno usposobljenih zdravstvenih delavcev. Tako načrtovana telesna dejavnost lahko občutno poveča mišično jakost in vzdržljivost ter zmanjša izgubljanje mineralne kostne gostote (Chien, et al., 2000; Kemmler, et al., 2004; Bolton, et al., 2012). Po sistematičnem pregledu randomiziranih kontroliranih raziskav o učinkovitosti telesne dejavnosti pri ženskah v pomenopavzi lahko zaključimo, da ima pozitivne učinke na zdravje žensk v pomenopavzi vsaj 30 minut zmerne hoje enkrat do trikrat na teden v kombinaciji z vadbo proti uporu dvakrat na teden (Asikainen, et al., 2004).

Pri ženskah v peri- in pomenopavzi se pogosto pojavijo težave z duševnim zdravjem s spremljajočimi simptomi depresije, anksioznosti in slabega počutja, vse to pa vpliva na kakovost življenja posameznice. Znano je, da je pojav depresije pri ženskah pogosto povezan z reproduktivnimi dogodki oz. tudi zaradi intenzivnih hormonskih nihanj v obdobjih pred menstruacijo, po rojstvu in v obdobju prehoda v pomenopavzo (Soares & Zitek, 2008). Simptomi depresije se lahko pojavijo tudi kot sekundarna posledica ostalih težav, ki jih povzroča pomanjkanje estrogena (povečano izpadanje las, suhost sluznic, tanjšanje kože ...), kar vse vpliva na slabšo samopodobo žensk v pomenopavzi. Pregled raziskav je potrdil pozitiven vpliv telesne dejavnosti na zmanjšanje simptomov depresije pri ženskah v

pomenopavzi in njen pozitiven vpliv na razpoloženje in kakovost življenja (Elavsky & McAuley, 2007). Tudi rezultati presečnih raziskav poročajo o manjšem številu simptomov depresije pri ženskah (Brown, et al., 2005; Teychenne, et al., 2008), ki so bile telesno dejavne več kot 3,5 ur na teden, vendar le, če je šlo za telesno dejavnost v prostem času in ne v okviru osemurnega delovnika ali v gospodinjstvu (Teychenne, et al., 2008). Hoja se je na splošno pokazala kot ena izmed najboljših oblik telesne dejavnosti za ženske. Zdravstveni delavci naj pri svojem delu v preventivnih programih, namenjenih ženskam v pomenopavzi, poudarjajo pomen prostočasne telesne dejavnosti, ki mora biti individualno izbrana glede na želje in sposobnosti posameznice.

Težave z uriniranjem in zadrževanjem urina se pojavljajo v različnih fazah perimenopavze, najpogosteje pa pet do deset let po menopavzi. Na atrofične spremembe uretre in sečnega mehurja vpliva poleg pomanjkanja estrogena tudi število in način vodenja porodov in individualne reakcije mišično-vezivnega tkiva male medenice v procesu staranja medenice (Meden-Vrtovec, 2002). Rezultati vseh pregledanih raziskav so pokazali pozitiven vpliv vadbe mišic medeničnega dna na njihovo jakost in s tem tudi na zmanjšanje pogostosti in količine uhajanja urina v pomenopavzi. Rezultati raziskave Pereira in sodelavci (2012) so pokazali, da sta bili za povečanje jakosti mišic medeničnega dna, zdravljenje simptomov stresne urinske inkontinence in izboljšanje kakovosti življenja pri ženskah v pomenopavzi enako učinkoviti tako samostojna vadba mišic medeničnega dna kot vadba mišic medeničnega dna z medeničnimi utežmi. Dodatek električne stimulacije k vadbi mišic medeničnega dna ni imel dodatnega učinka v primerjavi s samostojno vadbo mišic medeničnega dna (Spruijt, et al., 2003). Do takih rezultatov so prišli tudi v drugih randomiziranih kontroliranih raziskavah, ki so jih opravili na populaciji žensk s stresno urinsko inkontinenco (Borello-France, et al., 2008; Castro, et. al., 2008). Z zmanjšanjem pogostosti stresne urinske inkontinence se izboljša kakovost življenja žensk (Pereira, et al., 2012), o čemer poročajo tudi rezultati drugih raziskav (Borello-France, et al., 2008; Castro, et al., 2008).

Zaključek

Redna telesna dejavnost ima v splošnem pozitiven vpliv na izražanje simptomov, ki so posledica pomanjkanja estrogena v telesu žensk v pomenopavzi. Le-ti so lahko še vedno prisotni, vendar so v večini primerov veliko manjši oz. manj moteči. Glede na rezultate pregledanih raziskav lahko zaključimo, da ima telesna dejavnost največji vpliv na kardiovaskularni sistem, duševno zdravje, urinsko inkontinenco in osteoporozo. O učinkovitosti telesne dejavnosti na zmanjševanje vazomotornih simptomov je premalo relevantnih dokazov, potrebne so nadaljnje raziskave.

Zaradi vseh pozitivnih učinkov telesne dejavnosti na zdravje žensk v pomenopavzi bi jo bilo potrebno bolj promovirati pri ženskah v vseh starostnih obdobjih, saj je koristna tako v preventivi kot tudi v kurativi. Prav pri promociji telesne dejavnosti imajo primerno strokovno usposobljeni zdravstveni delavci in sodelavci pomembno vlogo, saj jo lahko preko številnih preventivnih programov približajo ciljni populaciji. Njihova naloga je, da ženske seznanijo s primerno vrsto telesne dejavnosti, jih naučijo pravilne izvedbe in jim dajo napotke glede pogostosti in intenzitete izvajanja. Poseben poudarek bi bilo treba nameniti aerobni vadbi zmerne intenzitete, kot je hitra hoja, hoja po stopnicah, tek, kolesarjenje, plavanje. Taka vrsta telesne dejavnosti je dostopna vsem socialnim skupinam, saj je njeno izvajanje relativno poceni in ne potrebuje stalnega nadzora strokovnjakov, poleg tega pa ima največ pozitivnih učinkov na telo.

Literatura

Abernethy, K., 2008. How the menopause affects the cardiovascular health of women. *Primary Health Care*, 18(6), pp. 42–47. http://dx.doi.org/10.7748/phc2008.07.18.6.41.c6624

Al-Qutob, R., 2001. Menopause-associated problems: types and magnitude. A study in the Ain Al-Basha area, Jordan. *Journal of Advanced Nursing,* 33(5), pp. 613–620. http://dx.doi.org/10.1046/j.1365-2648.2001.01706.x PMid:11298197

Andolšek-Jeras, L., 1997. Menopavza-mejnik v življenju ženske. In: *Šola za menopavzo: zbornik prispevkov, Zdravilišče Dobrna 20. in 21. junij 1997.* Ljubljana: Slovensko menopavzno društvo, pp. 1–4.

Asikainen, T.M., Kukkonen-Harjula, K. & Miilunpalo, S., 2004. Exercise for health for early postmenopausal women: a systematic review of randomised controlled trials. *Sports Medicine,* 34(11), pp. 753–778. http://dx.doi.org/10.2165/00007256-200434110-00004 PMid:15456348

Asikainen, T.M., Miilunpalo, S., Kukkonen-Harjula, K., Nenonen, A., Pasanen, M., Rinne, M., et al., 2003. Walking trials in postmenopausal women: effect of low doses of exercise and exercise fractionization on coronary risk factors. *Scandinavian Journal of Medicine and Science in Sports,* 13(5), pp. 284–292. http://dx.doi.org/10.1034/j.1600-0838.2003.00331.x PMid:14507293

Bolton, K.L., Egerton, T., Wark, J., Wee, E., Matthews, B., Kelly, A., et al., 2012. Effects of exercise on bone density and falls risk factors in post-menopausal women with osteopenia: a randomised controlled trial. *Journal of Science and Medicine in Sport,* 5(2), pp. 102-109. http://dx.doi.org/10.1016/j.jsams.2011.08.007 PMid:21996058

Borello-France, D.F., Downey, P.A., Zyczynski, H.M. & Rause, C.R., 2008. Continence and quality-of-life outcomes 6 months following an intensive pelvic-floor muscle exercise program for female stress urinary incontinence: a randomized trial comparing low- and high-frequency maintenance exercise. *Physical Therapy*, 88(12), pp. 1545-1553.
http://dx.doi.org/10.2522/ptj.20070257
PMid:18820095; PMCid:PMC2599795

Brown, W.J., Ford, J.H., Burton, N.W., Marshall, A.L. & Dobson, A.J., 2005. Prospective study of physical activity and depressive symptoms in middle-aged women. *American Journal of Preventive Medicine*, 29(4), pp. 265-272.
http://dx.doi.org/10.1016/j.amepre.2005.06.009
PMid:16242588

Castro, R.A., Arruda, R.M., Zanetti, M.R., Santos, P.D., Sartori, M.G. & Girão, M.J., 2008. Single-blind, randomized, controlled trial of pelvic floor muscle training, electrical stimulation, vaginal cones, and no active treatment in the management of stress urinary incontinence. *Clinics (Sao Paulo),* 63(4), pp. 465-472.
http://dx.doi.org/10.1590/S1807-59322008000400009
PMid:18719756; PMCid:PMC2664121

Chattha, R., Raghuram, N., Venkatram, P. & Hongasandra, N.R., 2008. Treating the climacteric symptoms in Indian women with an integrated approach to yoga therapy: a randomized control study. *Menopause*, 15(5), pp. 862-870.
http://dx.doi.org/10.1097/gme.0b013e318167b902
PMid:18463543

Chien, M.Y., Wu, Y.T., Hsu, A.T., Yang, R.S. & Lai, J.S., 2000. Efficacy of a 24-week aerobic exercise program for osteopenic postmenopausal women. *Calcified Tissue International,* 67(6), pp. 443-448.
http://dx.doi.org/10.1007/s002230001180
PMid:11289692

Church, T.S., Earnest, C.P., Skinner, J.S. & Blair, S.N., 2007. Effects of different doses of physical activity on cardiorespiratory fitness among sedentary, overweight or obese postmenopausal women with elevated blood pressure: a randomized controlled trial. *Journal of the American Medical Association*, 297(19), pp. 2081-2091.
PMid:17507344

Collins Fantasia, H. & Sutherland, M.A., 2014. Hormone therapy for the management of menopause symptoms. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 43(2), pp. 226–235.
http://dx.doi.org/10.1111/1552-6909.12282
PMid:24502325

Daley, A., Stokes-Lampard, H. & Macarthur, C., 2011. Exercise for vasomotor menopausal symptoms. *The Cochrane Database of Systematic Reviews*, 11(5), p. CD006108.
http://dx.doi.org/10.1002/14651858.CD006108.pub3
PMid: 21563149

Daley, A.J., Stokes-Lampard, H.J. & Macarthur, C., 2009. Exercise to reduce vasomotor and other menopausal symptoms: a review. *Maturitas*, 63(3), pp. 176-180.
http://dx.doi.org/10.1016/j.maturitas.2009.02.004
PMid:19285813

Dalleck, L.C., Allen, B.A., Hanson, B.A., Borresen, E.C., Erickson, M.E. & De Lap, S.L., 2009. Dose-response relationship between moderate-intensity exercise duration and coronary heart disease risk factors in postmenopausal women. *Journal of Women's Health*, 18(1), pp. 105-113.
http://dx.doi.org/10.1089/jwh.2008.0790
PMid:19132882

Elavsky, S. & McAuley, E., 2007. Physical activity and mental health outcomes during menopause: a randomised controlled trial. *Annals of Behavioral Medicine*, 33(2), pp. 132–142.
http://dx.doi.org/10.1007/BF02879894
PMid:17447865

Finkelstein, J.S., Brockwell, S.E., Mehta, V., Greendale, G.A., Sowers, M.R., Ettinger, B., et al., 2008. Bone mineral density changes during the menopause transition in a multiethnic cohort of women. *Journal of Clinical Endocrinology and Metabolism*, 93(3), pp. 861-868.
http://dx.doi.org/10.1210/jc.2007-1876
PMid:18160467; PMCid:PMC2266953

Kemmler, W., Lauber, D., Weineck, J., Hensen, J., Kalender, W. & Engelke, K., 2004. Benefits of 2 years of intense exercise on bone density, physical fitness, and blood lipids in early postmenopausal osteopenic women. *Archives of Internal Medicine*, 16(10), pp. 1084–1091.
http://dx.doi.org/10.1001/archinte.164.10.1084
PMid:15159265

Kirkegard, Y., 1998b. Menopausal systemic changes and their management. In: Sapsford, R., Bullock-Saxton, J. & Markwell, S., eds. *Women's health*. London: Saunders, pp. 318–328.

Kirkegard, Y., 1998a. Physiological and endokrine changes of the menopause. In: Sapsford, R., Bullock-Saxton, J. & Markwell, S., eds *Women's health*. London: Saunders, pp. 311–317.

Lermer, M.A., Morra, A., Moineddin, R., Manson, J., Blake, J. & Tierney, M.C., 2011. Somatic and affective anxiety symptoms and menopausal hot flashes. *Menopause*, 18(2), pp. 129-132.
http://dx.doi.org/10.1097/gme.0b013e3181ec58f8
PMid:20805777

Lindh-Astrand, L., Nedstrand, E., Wyon, Y. & Hammar, M., 2004. Vasomotor symptoms and quality of life in previously sedentary postmenopausal women randomised to physical activity or estrogen therapy. *Maturitas,* 48(2), pp. 97-105.
http://dx.doi.org/10.1016/S0378-5122(03)00187-7
PMid:15172083

Llaneza, P., García-Portillab, M.P., Llaneza-Suáreza, D., Armotta, B. & Pérez-López, F.R., 2012. Depressive disorders and the menopause transition. *Maturitas*, 71(2), pp. 120–130. http://dx.doi.org/10.1016/j.maturitas.2011.11.017 PMid:22196311

Meden-Vrtovec, H., 2002. Hormonsko nadomestno zdravljenje v klimakteriju. In: Meden-Vrtovec, H., ed. *Zdravljenje s hormoni v ginekologiji in andrologiji.* Ljubljana: Klinični center, SPS Ginekološka klinika, Slovensko društvo za reproduktivno medicino, pp. 99–112.

Pereira, V.S., de Melo, M.V., Correia, G.N. & Driusso, P., 2012. Vaginal cone for postmenopausal women with stress urinary incontinence: randomized, controlled trial. *Climacteric,* 15(1), pp. 45–51. http://dx.doi.org/10.3109/13697137.2011.593211 PMid:22066898

Snelling, A.M., Crespo, C.J., Schaeffer, M., Smith, S. & Walbourn, L., 2001. Modifiable and nonmodifiable factors associated with osteoporosis in postmenopausal women: results from the third national health and nutrition examination survey, 1988–1994. *Journal of Women's Health & Gender-based Medicine*, 10(1), pp. 57–65. http://dx.doi.org/10.1089/152460901750067124 PMid:11224945

Soares, C.N. & Zitek, B., 2008. Reproductive hormone sensitivity and risk for depression across the female life cycle: a continuum of vulnerability? *Journal of Psychiatry & Neuroscience*, 33(4), pp. 331–343. PMid:18592034; PMCid:PMC2440795

Spruijt, J., Vierhout, M., Verstraeten, R., Janssens, J. & Burger, C., 2003. Vaginal electrical stimulation of the pelvic floor: a randomized feasibility study in urinary incontinent elderly women. *Acta Obstetricia et Gynecologica Scandinavica,* 82(11), pp. 104–138. http://dx.doi.org/10.1034/j.1600-0412.2003.00130.x

Sternfeld, B., 2010. Is physical activity benefical for hot flushes? *Menopausal Medicine*, 18(2), pp. 6–8.

Teychenne, M., Ball, K. & Salmon, J., 2008. Associations between physical activity and depressive symptoms in women. *The International Journal of Behavioral Nutrition and Physical Activity*, 5, p. 27. http://dx.doi.org/10.1186/1479-5868-5-27 PMid:18460191; PMCid:PMC2397437

Thompson, P.D., Buchner, D., Piña, I.L., Balady, G.J., Williams, M.A., Marcus, B.H., et al., 2003. Exercise and physical activity in the prevention and treatment of atherosclerotic cardiovascular disease. A statement from the council on clinical cardiology (Subcommittee on exercise, rehabilitation, and prevention) and the council on nutrition, physical activity, and metabolism (subcommittee on physical activity). *Circulation*, 107(24), pp. 3109–3116. http://dx.doi.org/10.1161/01.CIR.0000075572.40158.77 PMid:12821592

Warburton, D.E.R., Nicol, C.W. & Bredin, S.S.D., 2006. Health benefits of physical activity: the evidence. *Canadian Medical Association Journal*, 174(6), pp. 801–809. http://dx.doi.org/10.1503/cmaj.051351 PMid:16534088; PMCid:PMC1402378

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NAVODILA AVTORJEM

Splošna načela

Članek naj bo pisan v slovenskem ali angleškem knjižnem jeziku, razumljivo in jedrnato, dolg naj bo največ 5.000 besed. Število besed se nanaša na besedilo članka in ne vključuje naslova, izvlečka, tabel, slik in seznama literature. Avtorji naj uporabijo MS-Wordovo predlogo, ki je dostopna na spletni strani uredništva. Vsi članki, ki so uvrščeni v uredniški postopek, so recenzirani s tremi anonimnimi recenzijami. Revija objavlja le izvirna, še neobjavljena znanstvena in strokovna dela. Za trditve v članku odgovarja avtor oziroma avtorji, če jih je več (v nadaljevanju avtor), zato mora le-ta biti podpisan s celotnim imenom in priimkom, treba je navesti strokovne naslove in akademske nazive avtorja. Avtor mora pri oddaji članka dosledno upoštevati navodila glede standardizirane znanstvene opreme, videza in tipologije dokumentov. Članku mora priložiti izjavo o avtorstvu na obrazcu, ki je dostopen na spletni strani Obzornika zdravstvene nege. Izjavo morajo lastnoročno podpisati avtor in vsi soavtorji v zaporedju, kot so navedeni v članku. Članek se ne uvrsti v uredniški postopek, dokler pravilno podpisana izjava ne prispe v uredništvo. Uredništvu je treba, v obliki spremnega dopisa, sporočiti odgovornega (kontaktnega) avtorja (njegov celotni naslov, telefonsko številko in e-naslov), ki bo skrbel za komunikacijo z uredništvom. Članek bo uvrščen v nadaljnjo obravnavo, ko bo pripravljen v skladu z navodili uredništva.

Če članek objavlja raziskavo na ljudeh, naj bo v podpoglavju metod *Opis poteka raziskave in obdelave podatkov* razvidno, da je bila raziskava opravljena skladno z načeli Helsinške deklaracije, opisan naj bo postopek pridobivanja dovoljenj za izvedbo raziskave. Eksperimentalne raziskave, opravljene na ljudeh, morajo imeti soglasje komisije za etiko bodisi na ravni ustanove ali več ustanov, kjer se raziskava izvaja, bodisi na nacionalni ravni.

Naslov članka, izvleček, ključne besede, tabele (opisni naslov in legenda) ter slike (opisni naslov in legenda) morajo biti v slovenščini in angleščini. Kadar je članek napisan v angleščini, morajo biti naslov, izvleček in ključne besede objavljeni v slovenščini. Skupno število slik in tabel naj bo največ pet. Tabele in slike naj bodo v besedilu članka na ustreznem mestu. Na vsako tabelo in sliko se mora avtor v besedilu sklicevati. Uporaba sprotnih opomb pod črto ni dovoljena.

Opredelitev tipologije

Uredništvo razvrsti posamezni članek po veljavni tipologiji za vodenje bibliografij v sistemu COBISS (Kooperativni online bibliografski sistem in servisi) (http://home.izum.si/COBISS/bibliografije/Tipologija_slv.pdf). Tipologijo lahko predlagata avtor in recenzent, končno odločitev sprejme glavni in odgovorni urednik.

Metodološka struktura članka

Naslov, **izvleček** in **ključne besede** naj bodo v slovenščini in angleščini. Naslov naj bo skladen z vsebino članka in dolg največ 120 znakov. Oblikovan naj bo tako, da je iz njega razviden uporabljen raziskovalni dizajn. Navedenih naj bo od tri do šest ključnih besed, ločenih s podpičjem, ki natančneje opredeljujejo vsebino članka in ne nastopajo v naslovu. Izvleček naj bo strukturiran, vsebuje naj 150–200 besed. Napisan naj bo v tretji osebi. V izvlečku se ne citira.

Strukturirani izvleček naj vsebuje naslednje strukturne dele:

Uvod (Introduction): Navesti je treba glavni problem, namen raziskave ter ključne spremenljivke raziskave.

Metode (Methods): Navesti je treba uporabljen raziskovalni dizajn, opisati glavne značilnosti vzorca, instrument raziskave, zanesljivost instrumenta, kje, kako in kdaj so se zbirali podatki, s katerimi metodami so bili obdelani in analizirani rezultati.

Rezultati (Results): Opisati je treba najpomembnejše rezultate raziskave, ki odgovarjajo na raziskovalni problem. Pri kvantitativnih raziskavah je treba navesti vrednost rezultata in raven statistične značilnosti.

Diskusija in zaključek (Discussion and conclusion): Razpravljati je treba o ugotovitvah raziskave, navesti se smejo le zaključki, ki izhajajo iz podatkov, pridobljenih pri raziskavi. Navesti je treba tudi uporabnost ugotovitev in izpostaviti pomen nadaljnjih raziskav za boljše razumevanje raziskovalnega problema. Enakovredno je treba navesti tako pozitivne kot negativne ugotovitve.

Struktura izvirnega znanstvenega članka (1.01)

Izvirni znanstveni članek je samo prva objava originalnih raziskovalnih rezultatov v takšni obliki, da se raziskava lahko ponovi ter ugotovitve preverijo. Revija objavlja znanstvene raziskave, za katere zbrani podatki niso starejši od pet let ob objavi članka v reviji.

Uvod: V uvodu opredelimo raziskovalni problem, in sicer v kontekstu znanja in dokazov, v katerem smo ga razvili. Pregled obstoječe literature mora utemeljiti potrebo po naši raziskavi in je osnova za oblikovanje ciljev raziskave, raziskovalnih vprašanj oz. hipotez in načrta raziskave. Uporabimo znanstvena spoznanja in koncepte aktualnih mednarodnih in domačih raziskav, ki so objavljena kot primarni vir in niso starejša od deset let oziroma pet let, če je raziskovalni problem dobro raziskan. Obvezno je citiranje in povzemanje spoznanj raziskav. Na koncu opredelimo namen in cilje raziskave. Priporočamo zapis raziskovalnih vprašanj (kvalitativna raziskava) oz. hipotez (kvantitativna raziskava).

Metode: V uvodu metod navedemo izbrano raziskovalno paradigmo (kvantitativna, kvalitativna) in uporabljeni dizajn izbrane paradigme. Podpoglavja metod so: *opis instrumenta, opis vzorca, opis poteka raziskave in opis obdelave podatkov*.

Pri *opisu instrumenta* navedemo: opis sestave instrumenta, kako smo oblikovali instrument, spremenljivke v instrumentu, merske značilnosti (veljavnost, zanesljivost, objektivnost, občutljivost). Navedemo avtorje, po katerih smo instrument povzeli, ali navedemo literaturo, po kateri smo ga razvili. Pri kvalitativni raziskavi opišemo tehniko zbiranja podatkov, izhodiščna vprašanja, morebitno strukturo poteka zbiranja podatkov, kriterije veljavnosti in zanesljivosti tehnike zbiranja podatkov.

Pri *opisu vzorca* navedemo: opis populacije, iz katere smo oblikovali vzorec, vrsto vzorca, kolikšen je bil odziv vključenih v raziskavo, opis vzorca po demografskih podatkih (spol, izobrazba, delovna doba, delovno mesto ipd.). Pri kvalitativni raziskavi opredelimo še možnosti vključitve in izbrani način vključitve v raziskavo, vrsto vzorca, velikost vzorca in pojasnimo zasičenost vzorca.

Pri *opisu poteka raziskave in obdelave podatkov* navedemo: etična dovoljenja za izvedbo raziskave, dovoljenja za izvedbo raziskave v organizaciji, predstavimo potek izvedbe raziskave, zagotovila za anonimnost vključenih ter prostovoljnost pri vključitvi v raziskavo, obdobje zbiranja podatkov in kraj zbiranja podatkov, način zbiranja, uporabljene metode analize podatkov, natančno navedemo statistične metode, program in verzijo programa statistične obdelave, meje statistične značilnosti. Pri kvalitativni raziskavi natančno opišemo celoten potek raziskave, način zapisovanja, zbiranja podatkov, število izvedb (opazovanj, intervjujev ipd.), trajanje izvedb, sekvence, transkripcijo podatkov, korake analize obdelave, tehnike obdelave podatkov, in interpretacije podatkov ter receptivnost raziskovalca.

Rezultati: Rezultate prikažemo besedno oz. v tabelah in slikah ter pazimo, da izberemo le en prikaz za posamezen rezultat in da se vsebina ne podvaja. V razlagi rezultatov se osredotočamo na statistično značilne rezultate in tiste, ki so nas presenetili. Rezultate prikazujemo glede na stopnjo zahtevnosti statistične obdelave. Pri prikazu rezultatov v tabelah in slikah je potrebna pojasnitev vseh uporabljenih kratic. Rezultate prikažemo po postavljenih spremenljivkah, odgovorimo na raziskovalna vprašanja oz. hipoteze. Pri kvalitativnih raziskavah prikažemo potek oblikovanja kod in kategorij, za vsako kodo predstavimo eno do dve reprezentativni izjavi vključenih v raziskavo, ki najbolj predstavita oblikovano kodo. Naredimo shematični prikaz dobljenih kod in iz njih razvitih kategorij ter sodbo.

Diskusija: V diskusiji ugotovitve raziskave navajamo na besedni način (številčnih rezultatov ne navajamo). Nizamo jih po posameznih spremenljivkah in z vidika postavljenih raziskovalnih vprašanj oz. hipotez, ki jih ne ponavljamo, temveč nanje besedno odgovarjamo. Rezultate v razpravi pojasnimo z vidika razumevanja, kaj lahko iz njih razberemo, razumemo in kako je to primerljivo z rezultati drugih raziskav in kaj to pomeni za strokovno delo – uporabnost raziskave. Pri tem smo odgovorni in etični ter rezultate pojasnjujemo z vidika spoznanj naše raziskave in z vidika spoznanj, ki so preverljiva, splošno znana in primerljiva z vidika drugih raziskav. Pazimo na posploševanje rezultatov in se pri tem zavedamo omejitev raziskave tako z vidika instrumenta, vzorca in poteka raziskave. Upoštevamo načelo preverljivosti in primerljivosti. Oblikujemo rdečo nit razprave kot smiselne celote, komentiramo pričakovana in nepričakovana spoznanja raziskave. Na koncu razprave navedemo priporočila, ki so plod naše raziskave, navedemo področja, ki jih nismo raziskali, pa bi bilo pomembno, ali pa smo jih, pa naši rezultati ne dajejo ustreznih pojasnil. Navedemo omejitve svoje raziskave.

Zaključek: Na kratko povzamemo svoje ključne ugotovitve, povzamemo predloge za prakso, predlagamo možnosti nadaljnjega raziskovanja obravnavanega problema.

Za zaključkom sledijo navedbe:

- ali članek vključuje del rezultatov večje raziskave;
- ali je članek nastal v okviru diplomskega, magistrskega ali doktorskega dela; v tem primeru je prvi avtor vedno študent;
- ali je bila raziskava financirana; če je bila financirana, je treba navesti financerje in raziskovalno skupino, v kolikor niso vsi člani skupine avtorji članka;
- morebitne zahvale.

Članek naj se zaključi s seznamom literature, ki je bila citirana ali povzeta v članku.

Struktura preglednega znanstvenega članka (1.02)

V kategorijo preglednih znanstvenih raziskav sodijo: pregled literature, analiza koncepta, razpravni članek (v nadaljevanju pregledni znanstveni članek). Revija objavlja pregledne znanstvene raziskave, za katere je bilo zbiranje podatkov končano največ tri leta pred objavo članka v reviji.

Pregledni znanstveni članek je pregled najnovejših raziskav o določenem predmetnem področju z namenom povzemati, analizirati, evalvirati ali sintetizirati informacije, ki so že bile publicirane. Znanstvena spoznanja niso le navedena, ampak tudi razložena, interpretirana, analizirana, kritično ovrednotena in predstavljena na znanstvenoraziskovalen način. Na osnovi kvantitativne obdelave podatkov predhodnih raziskav (metaanaliza) ali kvalitativne sinteze (metasinteza) rezultatov predhodnih raziskav prinaša nova spoznanja in koncepte za nadaljnje raziskovalno delo. Struktura preglednega znanstvenega članka je enaka kot pri izvirnem znanstvenem članku.

V **uvodu** predstavimo znanstveno, konceptualno ali teoretično izhodišče, kot vodilo pregleda literature. Končamo z utemeljitvijo, zakaj je pregled potreben, zapišemo namen, cilje in raziskovalno vprašanje.

V **metodah** natančno opišemo uporabljen raziskovalni dizajn pregleda literature. Podpoglavja metod so: *metode pregleda, rezultati pregleda, ocena kakovosti pregleda in opis obdelave podatkov*.

Metode pregleda vključujejo razvoj, testiranje in izbor iskalne strategije, vključitvene in izključitvene kriterije za uvrstitev v pregled, raziskane podatkovne baze, časovno obdobje objav, vrste objav z vidika hierarhije dokazov, ključne besede, jezik.

Rezultati pregleda vključujejo število dobljenih zadetkov, število pregledanih raziskav, število vključenih raziskav in število izključenih raziskav (tabelarični prikaz).

Ocena kakovosti pregleda in opis obdelave podatkov vključuje oceno uporabljenega pristopa in dobljenih rezultatov ter kakovost vključenih raziskav, uporabljene kriterije za dokončni nabor uporabljenih zadetkov, način obdelave podatkov.

Rezultate prikažemo tako, da uporabimo diagram poteka raziskave skozi faze pregleda, pri izdelavi si lahko pomagamo z mednarodnimi standardi za prikaz rezultatov pregleda literature (primer PRISMA for systematic review). Naredimo analizo kakovosti vključenih raziskav z vidika uporabljenih raziskovalnih metod. Jasno naj bo razvidno, katere vrste raziskav glede na hierarhijo dokazov so vključene v pregled literature. Rezultate prikažemo besedno, v tabelah in slikah, navedemo ključna spoznanja glede na raziskovalni dizajn. Pri kvalitativni sintezi uporabimo kode in kategorije kot rezultat pregleda kvalitativne sinteze. Pri kvantitativni analizi opišemo uporabljene statistične metode obdelave podatkov iz vključenih znanstvenih del.

V **diskusiji** v prvem delu odgovorimo na raziskovalno vprašanje, nato komentiramo ugotovitve pregleda literature, kakovost vključenih raziskav, svoje ugotovitve primerjamo z rezultati drugih primerljivih raziskav, razvijemo nova spoznanja, ki jih je doprinesel pregled literature, njihovo teoretično, znanstveno in praktično uporabnost, navedemo omejitve raziskave, uporabnost v praksi in priložnosti za nadaljnje raziskovanje.

V **zaključku** poudarimo doprinos izvedenega pregleda, opozorimo na mrebiten prepad v znanju in razumevanju, izpostavimo pomen bodočih raziskav, uporabnost pridobljenih spoznanj in priporočila za prakso/raziskovanje/izobraževanje/menedžment, pri čemer upoštevamo omejitve raziskave. Izpostavimo teoretični koncept, ki bi lahko usmerjal raziskovalce v prihodnosti.

Struktura strokovnega članka (1.04)

Strokovni članek je predstavitev že znanega, s poudarkom na uporabnosti rezultatov izvirnih raziskav in širjenju znanja. Struktura strokovnega članka je enaka strukturi izvirnega znanstvenega članka, v kolikor gre za pregled literature pa strukturi preglednega znanstvenega članka. V njem predstavljamo raziskave, ki obogatijo že obstoječe vedenje o strokovnem problemu, pri čemer pa nismo usmerjeni v podajanje novega znanja in znanstvenih dokazov, temveč v uporabnost rezultatov za izboljšave v strokovnem delu.

Literatura

Vsako trditev, teorijo, uporabljeno metodologijo, koncept je treba potrditi s citiranjem. Avtorji naj uporabljajo *harvardski sistem (Anglia 2008)* za navajanje avtorjev v besedilu in seznamu literature na koncu članka. Za navajanje avtorjev **v besedilu** uporabljamo npr.: (Pahor, 2006) ali Pahor (2006), kadar priimek vključimo v poved. Če sta avtorja dva, priimka ločimo z »&«: (Stare & Pahor, 2010). V besedilu navajamo *do dva avtorja*: (Rhodes & Pearson, 2006). Če je avtorjev *več* navedemo le prvega in dopišemo et al. (Chen, et al., 2007). Če navajamo več citiranih del, jih ločimo s podpičji in jih navedemo kronološko v zaporedju od najstarejšega do najnovejšega, če je med njimi v istem letu več citiranih del, jih razvrstimo po abecednem vrstnem redu (Bratuž, 2012; Pajntar, 2013; Wong, et al., 2014). Kadar citiramo več del istega avtorja, izdanih v istem letu, je treba za letnico dodati malo črko po abecednem redu: (Baker, 2002a, 2002b).

Kadar navajamo sekundarne vire, uporabimo »cited in« (Lukič, 2000 cited in Korošec, 2014). Če pisec članka ni bil imenovan oz. je delo anonimno, v besedilu navedemo *naslov* dodamo Anon., ter letnico objave: *The past is the past* (Anon., 2008). Kadar je avtor organizacija oz. gre za korporativnega avtorja, zapišemo ime korporacije (Royal College of Nursing, 2010). Če ni leta objave, to označimo z »no date« (Smith, n. d.). Pri objavi fotografij navedemo avtorja (Foto: Marn, 2009; vir: Cramer, 2012). Za objavo fotografij, kjer je prepoznavna identiteta posameznika, moramo pridobiti dovoljenje te osebe ali staršev, če gre za otroka.

V **seznamu literature** na koncu članka navedemo avtorje po abecednem redu in *vsa v besedilu citirana ali povzeta dela* (in samo ta!). Citiranje in povzemanje v besedilu ter navajanje v seznamu na koncu članka morajo biti skladni! Sklicujemo se le na objavljena dela. Kadar je avtorjev več in smo v besedilu navedli le prvega ter dodali et al., v seznamu navedemo prvih šest avtorjev in dodamo et al., če je avtorjev več kot šest. V seznamu literature si bibliografski opisi sledijo v abecednem zaporedju, velikost črk 12, z enojnim razmikom, levo poravnano ter 12 pik prostora za referencami (paragraph spacing).

Citirane strani navajamo pri citiranju v besedilu, če dobesedno navajamo citirano besedilo (Ploč, 2013, p. 56) ter v seznamu literature za članke, prispevke na konferencah …). Če citiramo več strani iz istega dela, strani navajamo ločene z vejico (npr. pp. 15–23,

29, 33, 84–86). Če je citirani prispevek dostopen na spletu, na koncu bibliografskega zapisa navedemo »Available at:« ter zapišemo URL- ali URN-naslov ter v oglatem oklepaju dodamo datum dostopa [glej primere].

Primeri za citiranje literature v seznamu

Knjige:

Hoffmann Wold, G., 2012. *Basic geriatric nursing*. 5th ed. St. Louis: Elsevier/Mosby, pp. 350–356.

Pahor, M., 2006. *Medicinske sestre in univerza*. Domžale: Izolit, pp. 73–80.

Ricci Scott, S., 2007. *Essentials of maternity, newborn and women's health nursing*. 2nd ed. Philadelphia: Lippincott Williams & Wilkins, pp. 32–36.

Knjige, ki jih je uredil eden ali več urednikov:

Borko, E., Takač, I., But, I., Gorišek, B. & Kralj, B. eds., 2006. *Ginekologija*. 2. dopolnjena izd. Maribor: Visoka zdravstvena šola, pp. 269–276.

Robida, A. ed., 2006. *Nacionalne usmeritve za razvoj kakovosti v zdravstvu*. Ljubljana: Ministrstvo za zdravje, pp. 10–72.

Poglavja oz. prispevki iz knjige, ki jo je uredilo več urednikov:

Berryman, J., 2010. Statewide nursing simulation program. In: Nehring, W.M. & Lashley, F.R. eds. *High-fidelity patient simulation in nursing education*. Sadbury (Massachusetts): Jones and Bartlett, pp. 115–131.

Girard, N.J., 2004. Preoperative care. In: Lewis, S.M., et al. eds. *Medical – surgical nursing: assessment and management of clinical problems.* 6th ed. St. Louis: Mosby, pp. 360–375.

Kanič, V., 2007. Možganski dogodki in srčno-žilne bolezni. In: Tetičkovič, E. & Žvan, B. eds. *Možganska kap – do kdaj?* Maribor: Kapital, pp. 33–42.

Anonimno delo (avtor ni naveden):

Anon., 2008. The past is the past: wasting competent, experienced nurses based on fear. *Journal of Emergency Nursing*, 34(1), pp. 6–7.

Delo korporativnega avtorja:

United Nations, 2011. *Competencies for the future*. New York: United Nations, p. 6.

Članki iz revij:

Cronenwett, L., Sherwood, G., Barnsteiner, J., Disch, J., Johnson, J., Mitchell, P., et al., 2007. Quality and safety education for nurses. *Nursing Outlook*, 55(3), pp. 122–131.

Papke, K. & Plock, P., 2004. The role of fundal pressure. *Perinatal Newsletters*, 20(1), pp. 1–2. Available at: http://www.idph.state.ia.us/hpcdp/common/pdf/perinatal_newsletters/progeny_may2004.pdf [5. 12. 2012].

Pillay, R., 2010. Towards a competency-based framework for nursing management education. *International Journal of Nursing Practice,* 16(6), pp. 545–554.

Snow, T., 2008. Is nursing research catching up with other disciplines? *Nursing Standard*, 22(19), pp. 12–13.

Članki iz suplementa revije in suplementa številke revije:

Halevay, D. & Vemireddy, M., 2007. Is a target hemoglobin A1c below 7% safe in dialysis patients? *American Journal of Kidney Diseases*, 49(2 Suppl 2), pp. S12–S154.

Regehr, G. & Mylopoulos, M., 2008. Maintaining competence in the field: learning about practice, through practice, in practice. *The Journal of Continuing Education in the Health Professions*, 28(Suppl 1), pp. S19–S23.

Rudel, D., 2007. Informacijsko-komunikacijske tehnologije za oskrbo bolnika na daljavo. *Rehabilitacija*, 6(Suppl 1), pp. 94–100.

Prispevki iz zbornika referatov:

Skela Savič B., 2008. Teorija, raziskovanje in praksa v zdravstveni negi – vidik odgovornosti menedžmenta v zdravstvu in menedžmenta v visokem šolstvu. In: Skela Savič, B., et al. eds. *Teorija, raziskovanje in praksa – trije stebri, na katerih temelji sodobna zdravstvena nega: zbornik predavanj z recenzijo. 1. mednarodna znanstvena konferenca, Bled, 25. in 26. september 2008*. Jesenice: Visoka šola za zdravstveno nego, pp. 38–46.

Štemberger Kolnik, T. & Babnik, K., 2012. Oblikovanje instrumenta zdravstvene pismenosti za slovensko populacijo: rezultati pilotske raziskave. In: Železnik, D., et al. eds. *Inovativnost v koraku s časom in primeri dobrih praks: zbornik predavanj z recenzijo. 2. znanstvena konferenca z mednarodno udeležbo s področja zdravstvenih ved, 18. september 2012*. Slovenj Gradec: Visoka šola za zdravstvene vede, pp. 248–255.

Wagner, M., 2007. Evolucija k žensko osrediščeni obporodni skrbi. In: Drglin, Z. ed. *Rojstna mašinerija: sodobne obporodne vednosti in prakse na Slovenskem*. Koper: Univerza na Primorskem, Znanstveno-raziskovalno središče, Založba Annales, Zgodovinsko društvo za južno Primorsko, pp. 17–30.

Diplomska, magistrska dela in doktorske disertacije:

Ajlec, A., 2010. *Komunikacija in zadovoljstvo na delovnem mestu kot del kakovostne zdravstvene nege: diplomsko delo univerzitetnega študija*. Kranj: Univerza v Mariboru, Fakulteta za organizacijske vede, pp. 15–20.

Rebec, D., 2011. *Samoocenjevanje študentov zdravstvene nege s pomočjo video posnetkov pri poučevanju negovalnih intervencij v specialni učilnici: magistrsko delo.* Maribor: Univerza v Mariboru, Fakulteta za zdravstvene vede, pp. 77–79.

Kolenc, L., 2010. *Vpliv sodobne tehnologije na profesionalizacijo poklica medicinske sestre: doktorska disertacija*. Ljubljana: Univerza v Ljubljani, Fakulteta za družbene vede, pp. 250–258.

Zakoni, kodeksi, pravilniki:

Zakon o pacientovih pravicah (ZPacP), 2008. Uradni list Republike Slovenije št. 15.

Zakon o preprečevanju nasilja v družini (ZPND), 2008a. Uradni list Republike Slovenije št. 16.

Zakon o varstvu osebnih podatkov (uradno prečiščeno besedilo) (ZVOP-1-UPB1), 2007. Uradni list Republike Slovenije št. 94.

Kodeks etike medicinskih sester in zdravstvenih tehnikov Slovenije, 2010. Uradni list Republike Slovenije št. 40.

Pravilnik o licencah izvajalcev v dejavnosti zdravstvene in babiške nege Slovenije, 2007. Uradni list Republike Slovenije št. 24.

Zgoščenke (CD-ROMi):

International Council of Nurses, 2005. *ICNP version 1.0: International classification for nursing practice*. [CD-ROM]. Geneva: International Council of Nurses.

Sima, Đ. & Požun, P., 2013. *Zakonodaja s področja zdravstva*. [CD-ROM]. Ljubljana: Društvo medicinskih sester, babic in zdravstvenih tehnikov.

NAVODILA ZA PREDLOŽITEV ČLANKA

Avtor, s katerim bo uredništvo komuniciralo, naj na e-naslov uredništva **obzornik@zbornica-zveza.si** pošlje:

- **elektronsko verzijo članka**, in sicer v enem izmed formatov, ki jih prepozna urejevalnik besedil MS Word, in en izvod v formatu PDF (portable document format); ime datoteke članka naj bo v obliki: PRIIMEKPRVEGAAVTORJA_Prve_tri_besede_naslova_članka (npr. BABNIK_Predstavitev_rezultatov_dela);
- **izjavo o avtorstvu** (obrazec je dostopen na spletni strani revije); natisnjeno izjavo naj podpišejo vsi avtorji v zaporedju, v kakršnem so navedeni v članku; skenirana izjava naj se nato pošlje kot priponka e-pošti; če avtor nima možnosti skeniranja, naj originalni dokument pošlje na naslov uredništva: Obzornik zdravstvene nege, Ob železnici 30a, 1000 Ljubljana;
- spremni dopis, v katerem naj bosta navedena celotni naslov in telefonska številka odgovornega (kontaktnega) avtorja, ki bo skrbel za komunikacijo z uredništvom.

Za oblikovanje besedila članka naj velja naslednje: velikost strani A4, dvojni razmik med vrsticami, pisava Times New Roman, velikost črk 12 pt in širina robov 25 mm. Priporočamo uporabo oblikovne predloge za članek (word), dostopne na spletni strani Obzornika zdravstvene nege. Članek naj bo pripravljen tako, da si na naslovni strani sledijo: naslov članka v slovenščini in angleščini, ime in priimek avtorja oz. avtorjev, ključne besede in izvleček v slovenščini ter ključne besede in izvleček v angleščini. Sledijo podatki o avtorjih z vsemi strokovnimi naslovi in morebitnimi habilitacijskimi nazivi ter ime ustanove, v okviru katere je delo nastalo. Nujno je navesti korespondenčni oz. kontaktni e-naslov za kontakt z avtorjem. Avtor, ki bo komuniciral z uredništvom, bo v članku naveden kot kontaktni avtor. Sledi morebitna opomba o izvoru članka (npr. diplomsko delo) ter celotno besedilo članka in seznam literature. V članku naj bodo uporabljene enote SI, ki jih dovoljuje Zakon o meroslovju.

Tabele naj bodo označene z arabskimi zaporednimi številkami. Imeti morajo vsaj dva stolpca ter opisni naslov *(nad tabelo)*, naslovno vrstico, morebitni zbirni stolpec in zbirno vrstico in legendo uporabljenih znakov. Opisni naslov, ter legenda morata biti v slovenščini in angleščini. V tabeli morajo biti izpolnjena vsa polja, obsegajo lahko največ 57 vrstic. Za njihovo oblikovanje naj velja naslednje: velikost črk 11, enojni razmik, pred in za vrstico 0,5 točke prostora, v prvem stolpcu in vseh stolpcih z besedilom leva poravnava, v stolpcih s statističnimi podatki sredinska poravnava, vmesne pokončne črte pri prikazu neizpisane. Opisni naslovi in legende razpredelnic naj bodo v slovenščini in angleščini.

Slike naj bodo oštevilčene z arabskimi zaporednimi številkami. Podpisi k slikam *(pod sliko)* naj bodo v slovenščini in angleščini. Izraz slika uporabimo za grafe, sheme in fotografije. Uporabimo le dvodimenzionalne grafične črno-bele prikaze (lahko tudi šrafure) ter resolucijo vsaj 300 dpi (dot per inch), če so slike v dvorazsežnem koordinatnem sistemu, morata obe osi (x in y) vsebovati označbe, katere enote/mere vsebujeta.

Članki niso honorirani. Besedil in slikovnega gradiva ne vračamo, kontaktni avtor prejme objavljeni članek v formatu PDF.

Sodelovanje avtorjev z uredništvom

Članek mora biti pripravljen v skladu z navodili, to je pogoj, da se članek uvrsti v uredniški postopek. Če uredništvo presodi, da članek izpolnjuje kriterije za objavo v Obzorniku zdravstvene nege, bo poslan v zunanjo strokovno (anonimno) recenzijo. Recenzenti prejmejo besedilo članka brez avtorjevih osebnih podatkov, članek pregledajo glede na postavljene kazalnike in predlagajo izboljšave. Avtor je dolžan izboljšave pregledati in jih v največji meri upoštevati. V kolikor katere od predlaganih izboljšav ne upošteva, mora to pisno pojasniti. Po zaključenem recenzijskem postopku uredništvo članek vrne avtorju, da popravke odobri, jih upošteva in pripravi čistopis. Čistopis uredništvo pošlje v jezikovni pregled.

Prvi natis avtor prejme v korekturo s prošnjo, da na njem označi vse morebitne tiskovne napake, ki jih označi v PDF-ju prvega natisa. Spreminjanje besedila v tej fazi ni sprejemljivo. Korekture je treba vrniti v treh dneh, sicer uredništvo meni, da se avtor s prvim natisom strinja.

NAVODILA ZA DELO RECENZENTOV

Recenzentovo delo je odgovorno in zahtevno. S svojimi predlogi in ocenami recenzenti prispevajo k večji kakovosti člankov, objavljenih v Obzorniku zdravstvene nege. Od recenzenta, ki ga uredništvo neodvisno izbere, se pričakuje, da bo odgovoril na vprašanja na obrazcu in ugotovil, ali so trditve in mnenja, zapisani v članku, verodostojni in ali je avtor upošteval navodila za objavljanje. Recenzent mora poleg znanstvenosti, strokovnosti in primernosti vsebine za objavo v Obzorniku zdravstvene nege članek oceniti metodološko ter uredništvo opozoriti na pomanjkljivosti. Ni potrebno, da se recenzent ukvarja z lektoriranjem, vendar lahko opozori tudi na jezikovne pomanjkljivosti. Posebej mora biti recenzent pozoren, ali je naslov članka jasen, ali ustreza vsebini; ali izvleček povzema bistvo članka; ali avtor citira (naj)novejšo literaturo in ali omenja domače avtorje, ki so pisali o isti temi v domačih revijah; ali se avtor izogiba avtorjem, ki zagovarjajo drugačna mnenja, kot so njegova; ali navaja tuje misli brez citiranja; ali je citiranje literature ustrezno, ali se v besedilu navedena literatura ujema s seznamom literature na koncu članka. Dostopno literaturo je potrebno preveriti. Oceniti je treba ustreznost slik ter tabel, preveriti, če se v njih ne ponavlja tisto, kar je v besedilu že navedeno. Recenzentova dolžnost je opozoriti na morebitne nerazvezane kratice. Recenzent mora biti še posebej pozoren na morebitno plagiatorstvo in krajo intelektualne lastnine.

Recenzent se obveže, da vsebine članka ne bo nedovoljeno razmnoževal ali drugače zlorabil. Recenzije so anonimne: recenzent je avtorju neznan in obratno. Recenzent bo v pregled prek e-pošte prejel le vsebino članka brez imena avtorja. Besedilu članka bo priložen obrazec Mnenje in strokovna recenzija, ki je dostopen tudi na spletni strani revije. Če ima recenzent večje pripombe, jih kot utemeljitev za sprejem ali morebitno zavrnitev članka na kratko opiše oz. avtorju predlaga nadaljnje delo. Zaradi večje preglednosti in lažjih dopolnitev s strani avtorja recenzent svoje pripombe in morebitne predloge vnese v besedilo članka, pri tem uporabi možnost, ki jo ponuja MS Word – sledi spremembam (Track changes). Recenzent mora biti pozoren, da pred uporabo omenjene možnosti prikrije svojo identiteto (sledi spremembam, spremeni ime/Track changes, change user name). Končno odločitev o objavi članka sprejme uredniški odbor.

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Obzornik zdravstvene nege: navodila avtorjem in recenzentom, 2014. Available at: http://www.obzornikzdravstvenenege.si/Navodila.aspx [15. 3. 2014].

MANUSCRIPT SUBMISSION GUIDELINES

General policies

The manuscript should be written clearly and succinctly in a standard Slovene or English language and conform to acceptable language usage. Its length must not exceed 5000 words not including the title, abstract, tables, pictures and literature. The authors should use the MS Word template, accessible at the editorial website. All articles considered for publication in the Slovenian Nursing Review will have been subjected to an external, triple-blind peer review. Manuscripts are accepted for consideration by the journal with the understanding that they represent original material, have not been published previously and are not being considered for publication elsewhere. Individual authors bear full responsibility for the content and accuracy of their submissions. The statement of responsibility and publication approval must be signed by the authors' full name. In submitting a manuscript, the authors must observe the standard scientific research paper components, the format and typology of documents. The manuscript must be accompanied by the authorship statement, a copy of which is available on the journal website. The statement must be undersigned by the author and all co-authors in the order in which each is listed in the authorship of the article. The manuscript will not be submitted to editing process before the statement has been received by the editorial office. The latter should also be notified of the designated corresponding author (with their complete home and e-mailing address, telephone number), who is responsible for communicating with the editorial office and other authors about revisions and final approval of the proofs. The title page should include the manuscript title and the full names of the authors, their highest earned academic degrees, and their institutional affiliations and status. The manuscript is eligible for editorial and reviewing process if it is prepared according to the uniform requirements set forth by the editorial committee of the Slovenian Nursing Review.

If the article publishes human subject research, it should be evident from the methodology chapter that the study was conducted in accordance with the Code of Ethics for Nurses and Nurse Assistants of Slovenia and the Declaration of Helsinki. All human subject research including patients or vulnerable groups, health professionals and students requires review and approval by the ethical committee on institutional or national level prior to subject recruitment and data collection.

The title of the article, abstract and key words, tables (descriptive title and legend), illustrations (charts, diagrams, signed photographs) must be submitted in Slovene and English. When the article is written in English, the title, the abstract and the key words must be translated into Slovene. The total of five data supplements per manuscript is allowed and their copyright must be obtained prior to publication.

Tables and other data supplements should adequately accompany the text. The authors should refer to each of these supplements in the text. The use of footnotes and endnotes is not allowed.

Typology of articles

The editors reserve the right re-classify the article in a topic category that may be more suitable than originally submitted. The classification follows the adopted typology of documents/works for bibliography management in COBISS (Cooperative Online Bibliographic System and Services) accessible at: http://home.izum.si/COBISS/bibliografije/Tipologija_eng.pdf). Reclassification can be suggested by the author or reviewer, the final decision rests with the editor-in-chief and the executive editor.

Methodological structure of an article

The title, the abstract and **the key words** should be written in the Slovene and English language. A concise but informative title should convey the nature, content and research design of the paper. It must not exceed 120 characters. Up to six key words separated by a semicolon and not included in the title, define the article content and reflect the article's core topic or message. Articles must be accompanied by an abstract of no more than 150-250 words written in the third person. Abstracts accompanying articles must be structured and should not include references.

A structured abstract is an abstract with distinct, labelled sections for rapid comprehension. It is structured under the following headings:

Introduction: This section states the main question to be answered, and indicates the exact objective of the paper and the major variables of the study.

Methods: This section provides an overview of the research or experimental design, the research instrument, the reliability of the instrument, methods of data collection, and analysis indicating where, how and when the data were collected.

Results: This section briefly summarizes and discusses the major findings. The information indicated in this section should be directly connected to the research question. In quantitative studies it is necessary to state the statistical validity and statistical significance of the results.

Discussion and conclusion: This section states the conclusions and discusses the research findings drawn from the results obtained. Presented in this section are also limitations of the study and the implications of the results for practice and relevant further research.

Both, the positive and the negative research findings should be adequately presented.

Structure of an Original Scientific Article (1.01)

An original scientific article is only the first-time publication of original research results in a way that allows the research to be repeated, and the findings checked. The research should be based on the primary sources which are not older than five years at the time of the publication of the article.

Introduction: In the introductory part the research problem is defined within the context of knowledge and evidence it was developed. The literature review on the topic provides a rationale behind the work and identifies a problem highlighted by the gap in the literature. It frames a purpose for a study, research questions or hypotheses as well as the method of investigation (a research design, sample size and characteristics of the proposed sample, data collection and data analysis procedures). The research should be based on the primary sources of the recent national and international research which are not older than ten or five years respectively, if the topic of has been widely researched. Citation of sources and references to previous research findings is obligatory. Finally, the research intentions and purposes are stated. Recommended is also the framing of research questions (qualitative research) and hypotheses (qualitative research) to investigate or guide the study.

Method: This section states the chosen paradigm (qualitative, quantitative) and outlines the research design. It usually includes sections on research design; sample size and characteristics of the proposed sample; description of research process; and data collection and data analysis procedures.

The *description of the research instrument* includes information about the construction of the instrument, the mode of instrument development, instrument variables and measurement properties (validity, reliability, objectivity, sensitivity). Appropriate citations of the literature used in research development should be included. In qualitative research, a technique of data collection should be given along with the preliminary research questions, a possible format or structure of data collection and process, the criteria of validity and reliability of data collection.

The *description of a sample* defines the population from which the sample has been drawn, the type of the sample, the response rate of the participants, the respondents' demographics (gender, educational level, length of work experience, post currently held, and the like). In qualitative research, the category of sampling technique and the inclusion criteria are also defined and the sample size saturation is explained.

The *description of the research procedure and data analysis* includes ethical approvals to conduct a research, permission to conduct a research in an institution, description of the research process, guarantee of anonymity and voluntariness of the research participants, period and place of data collection, method of data collection and analysis, statistical methods, statistical analysis software and programme version, limits of statistical significance. A qualitative research should include a detailed description of modes of data collection and recording, number and duration of observations, interviews and surveys, sequences, transcription of data, steps in the data analysis and interpretation, and receptiveness of a researcher.

Results: This section presents the research results descriptively or in numbers and figures. A table is included only if it presents new information. Each finding is presented only once so as to avoid repetition and duplication of the content. Explanation of the results is focused on statistically significant or unexpected findings. The results are presented according to the level of statistical complexity. All abbreviations used in figures and tables should be provided with explanatory captions. The results are presented according to the variables, answering all the research questions or hypotheses. In qualitative research, the development of codes and categories should also be presented, including one or two representative statements of participants. A schematic presentation of the codes and ensuing categories are given.

Discussion: The discussion section analyses the data descriptively (numerical data should be avoided) in relation to specific variables from the study. The results are analysed and evaluated in relation to the original research questions or hypotheses. The discussion part integrates and explains the results obtained and relates them with those of previous studies in order to determine their significance and applicative value. Ethical interpretation and communication of research results is essential to ensure the validity, comparability and accessibility of new knowledge. The validity of generalisations from results is often questioned due to the limitations of qualitative research (sample representativeness, research instrument, research proceedings). The principles of reliability and comparability should be observed. The discussion includes comments on the expected and unexpected findings and the areas requiring further or in-depth research as indicated by the study results. The limitations of the research should be clearly stated.

Conclusion: Summarised in this section are the author's principal points and transfer of new findings into practice. The section may conclude with specific further research proposals grounded on the substantive content, conclusions and contributions of the study, albeit limitations cited.

The article concludes with the following statements:

– whether the article publishes results of a larger study;

– whether the article was based on the diploma work, master's thesis or doctorate dissertation; in this case the student is always listed as the first author;
– whether the research was financially supported; in this case the sponsors and other participating researchers must be included at the end of the text;
– personal acknowledgements.

The article concludes with a list of all the published works cited or referred to in the text of the paper.

Structure of a Review Article (1.02)

Included in the category of review scientific research are: literature review, concept analyses, discussion based articles (also referred to as a review article). The Slovenian Nursing Review publishes review scientific research, the data collection of which has been concluded maximum three years before the publication of an article.

A review article is an overview of the latest works in a specific subject area, the works of an individual researcher or a group of researchers with the purpose of summarising, analysing, evaluating or synthesising the information that has already been published. Research findings are not only described but explained, interpreted, analysed, critically evaluated and presented in a scientific research manner. A review article brings either qualitative data processing of the previous research findings (meta-analyses) or qualitative syntheses of the previous research findings (meta-syntheses) and thus provides new knowledge and concepts for further research. The organizational pattern of a review article is similar to that of the original scientific article.

The **introduction** section defines the scientific, conceptual or theoretical basis for the literature review. It also states the necessity for the review along with the aims, objectives and the research question.

The **method** section accurately defines the research methods by which the literature search was conducted. It is further subdivided into: review methods, the results of the review, the quality assessment of the review and the description of data processing.

Review methods include the development, testing and search strategy, predetermined criteria for the inclusion in the review, the researched data bases, limited time period of published literature, types of publications according to hierarchy of evidence, key words and language.

The *results of the review* include the number of hits, the number of reviewed research works, the number of included and excluded sources consulted.

The quality assessment of the review and the description of data processing include the assessment of the research approach and the data obtained as well as the quality of included research works, the final criteria to include or exclude the sources of evidence consulted and the data processing method.

The **results** are presented in the form of a diagram of all the research stages of the review. The international standards for the presentation of the literature review results may be used for this purpose (e.g. PRISMA for systematic review. The results should include a quality analysis of the sources included from the view point of the research methods used. It should be evident which studies are included in the review according to hierarchy of evidence. The results are presented verbally and visually, the main findings concerning the research design should also be included. In qualitative synthesis the codes and categories are used as a result of the qualitative synthesis review. In quantitative analysis, the statistical methods of data processing of the used scientific works are described.

The first section of the **discussion** answers the research question which is followed by the author's observations on literature review findings, the quality of the research works included. The author evaluates the review findings in relation to the results from other comparable studies. The discussion chapter identifies new perspectives and contributions of the literature review, their theoretical, scientific and practical applicability. It also defines research limitations and points the way forward for applicability of the review findings and further research.

The **conclusion** section emphasises the contribution of the literature review conducted, it sheds light on any gaps in previous research, it identifies the significance of further research, the translation of new knowledge and recommendations into practice/research/education/management by taking into consideration the research limitations. It also pinpoints theoretical concept which may guide or direct further research.

Structure of a Professional Article (1.04)

A professional article is a presentation of what is already known, with the emphasis on the applicability of original research results and the dissemination of knowledge. The organisational structure of a professional article is similar to that of an original scientific article, in the case of literature review it follows the structure of review article. It presents the research results which upgrade the current knowledge on the topic. No new knowledge or scientific evidence is presented, it is, however, focused on the applicability of the results with the aim to improve the existing professional practice.

Literature Citation

In academic writing the authors are required to acknowledge the sources from which they draw their information, including all statements, theories or methodologies applied. The authors should follow the *Harvard referencing system (Anglia 2008)* for in-

text citations and in the reference list at the end of the paper. **In-text citations** or parenthetical citations are identified by the authors' surname and the publication year positioned within parenthesis immediately after the relevant word and before the punctuation mark: (Pahor, 2006). If a citation functions as a sentence element, the author's surname is followed by the year of publication within parenthesis: Pahor (2006). In case of two authors, their surnames are separated by a »&«: (Stare & Pahor, 2010). *Up to two authors* only are given in the text: (Rhodes & Pearson, 2006). If there are *more than two authors*, only the first author's last name is noted followed by et al. (Chen, et al., 2007). Several references are listed in the chronological sequence of publication, from the most recent to the oldest. If several references were published in the same year, the are listed in alphabetical order. Semicolon is used to separate each author: (Bratuž, 2012; Pajntar, 2013; Wong, et al., 2014).

In citing works by the same author published in the same year, a lower case letter after the date must be used to differentiate between the works: (Baker, 2002a, 2002b).

In citing secondary sources they are introduced by 'cited in' (Lukič, 2000 cited in Korošec, 2014). In citing a piece of work which does not have an obvious author or the author is unknown, the in-text citation includes the title followed by Anon., and the year of publication: *The past is the past* (Anon., 2008). In citing a piece of work whose authorship is an organization or corporate author, the name of the organization is given, followed by the year of publication (Royal College of Nursing, 2010). If no date of publication is given, it is notified by a »no date« (Smith, n. d.). An in-text citation and a full reference must be provided for any images, illustrations, photographs, diagrams, tables or figures reproduced in the paper as with any other type of work: (Photo: Marn, 2009; source: Cramer, 2012). If a subject on a photo is recognisable, a prior informed consent for publication should be gained from the subject or from a portrayed child's parent or guardian.

All in-text citations should be listed in the **reference list** at the end of the document. When someone's work is cited in the text (an in-text citation), a full reference for it needs to be created at the end of the paper. **The end-of-text citation** or **the reference list** should include all *published* material used in the paper. Therefore, background material or further reading material which is not referred to in the running text should not be included. The reference list is arranged in alphabetical order according to authors' last name. All in-text citations must have a corresponding detailed entry at the end of the paper in the reference list. The in-text citations and the end-of-text citation should be congruent to each other. In- text citations should not refer to unpublished sources. If there are several authors, the in-text citation includes only the last name of the first author followed by the phrase et al. and the publication date. When authors number more than six, the reference list includes the first six authors' names followed by et al. The list of references should be in alphabetical order according to the first author's last name, character size 12pt with single spaced lines, aligned left and with 12pt spacing after references (paragraph spacing).

Cited pages are included in the in-text citation if the original segment of the text is cited (Ploč, 2013, p. 56) and in the reference list of the articles, conference papers, etc. If several pages are cited from the same source, the pages are separated by a comma (e.g. pp. 15–23, 29, 33, 84–86). If a source cited is accessible also on the World Wide Web, the bibliographic information concludes with »Available at«, followed by URL- or URN-address and a date of access in square brackets [See examples].

Citation Examples by Type of Reference

Citing books:

Hoffmann Wold, G., 2012. *Basic geriatric nursing*. 5th ed. St. Louis: Elsevier/Mosby, pp. 350–356.

Pahor, M., 2006. *Medicinske sestre in univerza*. Domžale: Izolit, pp. 73–80.

Ricci Scott, S., 2007. *Essentials of maternity, newborn and women's health nursing*. 2nd ed. Philadelphia: Lippincott Williams & Wilkins, pp. 32–36.

Citing a book edited by one or multiple authors:

Borko, E., Takač, I., But, I., Gorišek, B. & Kralj, B. eds., 2006. *Ginekologija*. 2. dopolnjena izd. Maribor: Visoka zdravstvena šola, pp. 269–276.

Robida, A. ed., 2006. *Nacionalne usmeritve za razvoj kakovosti v zdravstvu.* Ljubljana: Ministrstvo za zdravje, pp. 10–72.

Citing a chapter/essay in a book edited by multiple authors:

Berryman, J., 2010. Statewide nursing simulation program. In: Nehring, W.M. & Lashley, F.R. eds. *High-fidelity patient simulation in nursing education*. Sadbury (Massachusetts): Jones and Bartlett, pp. 115–131.

Girard, N.J., 2004. Preoperative care. In: Lewis, S.M., et al. eds. *Medical – surgical nursing: assessment and management of clinical problems*. 6th ed. St. Louis: Mosby, pp. 360–375.

Kanič, V., 2007. Možganski dogodki in srčno-žilne bolezni. In: Tetičkovič, E. & Žvan, B. eds. *Možganska kap – do kdaj?* Maribor: Kapital, pp. 33–42.

Citing anonymous works (author is not given):

Anon., 2008. The past is the past: wasting competent, experienced nurses based on fear. *Journal of Emergency Nursing*, 34(1), pp. 6–7.

Citing works with society, association, or institution as author and publisher:

United Nations, 2011. *Competencies for the future*. New York: United Nations, p. 6.

Citing a journal article:

Cronenwett, L., Sherwood, G., Barnsteiner, J., Disch, J., Johnson, J., Mitchell, P., et al., 2007. Quality and safety education for nurses. *Nursing Outlook*, 55(3), pp. 122–131.

Papke, K. & Plock, P., 2004. The role of fundal pressure. *Perinatal Newsletters*, 20(1), pp. 1–2. Available at: http://www.idph.state.ia.us/hpcdp/common/pdf/perinatal_newsletters/progeny_may2004.pdf [5. 12. 2012].

Pillay, R., 2010. Towards a competency-based framework for nursing management education. *International Journal of Nursing Practice*, 16(6), pp. 545–554.

Snow, T., 2008. Is nursing research catching up with other disciplines? *Nursing Standard*, 22(19), pp. 12–13.

Citing an article from a journal supplement or issue supplement:

Halevay, D. & Vemireddy, M., 2007. Is a target hemoglobin A1c below 7% safe in dialysis patients? *American Journal of Kidney Diseases*, 49(2 Suppl 2), pp. S12–S154.

Regehr, G. & Mylopoulos, M., 2008. Maintaining competence in the field: learning about practice, through practice, in practice. *The Journal of Continuing Education in the Health Professions*, 28(Suppl 1), pp. S19–S23.

Rudel, D., 2007. Informacijsko-komunikacijske tehnologije za oskrbo bolnika na daljavo. *Rehabilitacija*, 6(Suppl 1), pp. 94–100.

Citing from published conference proceedings:

Skela Savič B., 2008. Teorija, raziskovanje in praksa v zdravstveni negi – vidik odgovornosti menedžmenta v zdravstvu in menedžmenta v visokem šolstvu. In: Skela Savič, B., et al. eds. *Teorija, raziskovanje in praksa – trije stebri, na katerih temelji sodobna zdravstvena nega: zbornik predavanj z recenzijo. 1. mednarodna znanstvena konferenca*, Bled 25. in 26. september 2008. Jesenice: Visoka šola za zdravstveno nego, pp. 38–46.

Štemberger Kolnik, T. & Babnik, K., 2012. Oblikovanje instrumenta zdravstvene pismenosti za slovensko populacijo: rezultati pilotske raziskave. In: Železnik, D., et al. eds. *Inovativnost v koraku s časom in primeri dobrih praks: zbornik predavanj z recenzijo. 2. znanstvena konferenca z mednarodno udeležbo s področja zdravstvenih ved, 18. september 2012*. Slovenj Gradec: Visoka šola za zdravstvene vede, pp. 248–255.

Wagner, M., 2007. Evolucija k žensko osrediščeni obporodni skrbi. In: Drglin, Z. ed. *Rojstna mašinerija: sodobne obporodne vednosti in prakse na Slovenskem*. Koper: Univerza na Primorskem, Znanstveno-raziskovalno središče, Založba Annales, Zgodovinsko društvo za južno Primorsko, pp. 17–30.

Citing diploma theses or master's theses and doctoral dissertations:

Ajlec, A., 2010. *Komunikacija in zadovoljstvo na delovnem mestu kot del kakovostne zdravstvene nege: diplomsko delo univerzitetnega študija*. Kranj: Univerza v Mariboru, Fakulteta za organizacijske vede, pp. 15–20.

Rebec, D., 2011. *Samoocenjevanje študentov zdravstvene nege s pomočjo video posnetkov pri poučevanju negovalnih intervencij v specialni učilnici: magistrsko delo.* Maribor: Univerza v Mariboru, Fakulteta za zdravstvene vede, pp. 77–79.

Kolenc, L., 2010. *Vpliv sodobne tehnologije na profesionalizacijo poklica medicinske sestre: doktorska disertacija.* Ljubljana: Univerza v Ljubljani, Fakulteta za družbene vede, pp. 250–258.

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Zakon o pacientovih pravicah (ZPacP), 2008. Uradni list Republike Slovenije št. 15.

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Sima, Đ. & Požun, P., 2013. *Zakonodaja s področja zdravstva*. [CD-ROM]. Ljubljana: Društvo medicinskih sester, babic in zdravstvenih tehnikov.

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