

# Polish nursing into the future – challenges and opportunities

Przyszłość polskiego pielęgniarstwa – wyzwania i możliwości

Fiona Timmins

School of Nursing and Midwifery, Trinity College Dublin, 24 D'Olier Street, Dublin 2, Ireland

ORCID:

Fiona Timmins: 0000-0002-7233-9412

CORRESPONDING AUTHOR:

**Fiona Timmins, Associate Professor  
Editor in Chief, Journal of Nursing Management,  
School of Nursing and Midwifery Studies  
Trinity College Dublin  
24 D'Olier St., Dublin 2, Ireland  
e-mail: timminsf@tcd.ie  
tel. 003531-8963699**

## STRESZCZENIE

### PRZYSZŁOŚĆ POLSKIEGO PIELĘGNIARSTWA – WYZWANIA I MOŻLIWOŚCI

**Wstęp.** Polskie pielęgniarstwo doświadczyło szybkiego i bezprecedensowego rozwoju. Ostatnio wprowadzone i kontynuowane zmiany do przygotowawczej edukacji pielęgniarek są zwiastunem gruntownych przekształceń w tej profesji. Jednocześnie w samym zawodzie pielęgniarki doszło do bezprecedensowego rozwoju, w tym ewolucji ról i poszerzenia zakresu praktyki. W miarę rozwoju profesji musimy się jednak mierzyć z wieloma wyzwaniami, takimi jak niedobór pracowników i ich rosnący wiek czy zmieniające się wzorce chorobowe. Jako pełna oddania kadra pracownicza, pielęgniarki stoją przed wyzwaniem utrzymania standardów jakości w kontekście tych wyzwań.

**Cel.** W niniejszym opracowaniu przeanalizowano reakcje i obowiązki charakterystyczne dla przedstawicieli tego zawodu w obliczu ciągłych zmian w medycynie, zdrowiu i społeczeństwie, jak również zmian politycznych i zawodowych. Omówione zostaną również cechy przywódcze niezbędne do skutecznego nadzorowania i wdrażania tego procesu transformacji.

## Słowa kluczowe:

pielęgniarstwo polskie, przywództwo w pielęgniarstwie, badania naukowe w pielęgniarstwie

## ABSTRACT

### POLISH NURSING INTO THE FUTURE – CHALLENGES AND OPPORTUNITIES

**Introduction.** Polish nursing has experienced rapid and unprecedented evolutionary change. Recent and ongoing changes to preparatory nurse education have heralded a profound change for the profession. At the same time the nursing profession itself has experienced unprecedented development in terms of changing roles and expanded practice. While the growth of professional is ongoing there are many challenges to this in terms of staffing shortages, an aging workforce and changing illness trajectories. While a committed workforce, nurses are challenged to maintain quality standards in the context of these challenges.

**Aim.** This paper explores the responses and responsibilities required of the profession to face ongoing changes in medicine, health and society as well as policy and professional changes. The leadership required to successfully steer and negotiate this ongoing transformation will be discussed.

## Key words:

Polish nursing, leadership in nursing, nursing research

## INTRODUCTION

### The historical development of Polish nursing

The historical development of Polish nursing emerged from the foundations of secular nursing schools by Catholic orders in the early 20th century [1]. However its development was anfractuious, punctuated by the implicit moratorium imposed by World War II [2]. The establishment of the Association of Professional Nurses in 1925, and subsequent International Council of Nurses (ICN) membership heralded the start of international networking and sharing of ideas that is still obvious today [3].

Moreover the early nursing schools: the Warsaw School of Nursing in Warsaw (1921), the Catholic School of Nursing in Poznań (1921), the Jewish School in Warsaw (1923) and the University School of Nurses and Hygienists in Kraków (1925) were all positioned close to Universities and held close associations with both the Universities and medical colleagues [1]. As such Polish nursing has consistently displayed great vision and ambition. After the war for example, the Polish Nursing Association of Professional Nurses was reinvigorated (in 1957) as the Polish Nurses Association and its subsequent activity led to the establishment of a three-year nursing degree at the Medical

Academy in Lublin (1969), the establishment of a Nursing Faculty there and cooperation with the World Health Organization (WHO).

Indeed Sztembis's [2, p.104] outline of Polish nursing's "transformation" outlined political activity and subsequent national incentives, in part under the auspices of the Department of Nursing within the Ministry for Health (which had a long career but was reinvigorated in this context in the 1990s), as other major contributors. However Ślusarska et al. [1, p.119] highlighted the point of "transformation" [of the nursing profession] as being linked to gaining independence from the Soviet Union in the 1980s and obtaining EU membership in 2004. In fact Poland still receives more EU funding than any other state [4]. The resultant activities, including legislative changes that strengthened and informed nursing progress and activity in Poland, including clear delineation of nursing roles, improving curricula and creation of new institution such as the Centre of Postgraduate Education for Nurses and Midwives led to steady progress towards professionalisation [2]. While it is beyond the scope of this paper to describe these changes in detail, Ślusarska et al., [1, p. 124] provided an important "chronological analysis of the most important facts regarding nursing education in Poland" which is worth reading.

## Modern professional development in Polish nursing

Polish nursing has experienced ongoing changes to preparatory and post basic nurse education that have heralded a profound change for the profession. Today Poland has a vibrant and ambitious nursing movement, with an active Polish Nurses Association. Lublin recently celebrated its 50<sup>th</sup> year anniversary of the academic development of nursing, and it is certainly proud of its achievements [5]. Offering, like most other European countries, post-graduate specialist and advanced practice programmes in addition to PhD programmes, the concept of continuous professional development (CPD) is embedded in Polish nursing and enshrined in law insofar as nurses are required to keep their knowledge up to date. These developments are having a profound effect on the discipline, for example one Polish study found that nurses (n=272) educated to Masters level perceived greater autonomy within their current roles as a result of this education [6]. There are also greater opportunities to achieve professional development and expand scope of practice and there are perceived improvements in patient care as a result of these expanding roles [6].

## Challenges

However while professional development is ongoing there are many challenges to this in terms of scope and authority within advanced practice role development [7], staffing shortages [8,9], economic migration of nurses [10], an aging workforce [11] and changing illness trajectories. There are an average number of 5.3 nurses per capita, lower than most European countries, and limited comparative growth in numbers in the last decade [12]. While a committed workforce, Polish nurses are challen-

ged to maintain quality standards in this context. Indeed Marcinowicz et al. [13, p.337] recently expressed concern about these very matters, highlighting their possible negative impact on perceptions of Polish nursing among the public, but also among nurses themselves. Nurses report concerns about low pay and lack of prestige [13]. There is also evidence of a significant pattern of migration among Polish nurses [12].

While the Polish nursing profession has experienced unprecedented development in terms of changing roles and expanded practice and is making a major contribution to the scientific development of the profession [3,14], the extent of this contribution, or the use of evidence based practice (EBP), or nurses' research awareness in Poland is unknown [15]. This is another challenge facing the Polish nursing profession. Brayer et al. [6] found that despite progress, nurses reported limited ability to research or lead to monitor research-based improvements [6]. Recent exploration of EBP policy activity in Poland [16] also expressed the view that this activity seemed mostly voluntary insofar as national guidelines and support for EBP in nursing do not exist. However there is clear direction within national legislative guidance to nurses and code of conduct that practice must be based on scientific evidence [17,18]. There is also limited, but gradually improving, teaching instruction on this topic [15]. In some authors' views EBP in Polish nursing has "fallen behind most western countries in terms of both evidence and implementation" [16, p.69]. Certainly Ślusarska & Nowicki's [15] recent analysis seems to support this. Similarly Mędrzycka-Dąbrowska et al's survey of 1,300 surgical nurses revealed EBP as a relatively novel concept, with English language emerging as a major barrier [19]. This is likely an accurate reflection of the situation, as it has been observed that nursing research has grown at a faster pace in Northern Europe (Norway, Denmark, Finland) compared with many Southern and Eastern European Countries including Poland [20]. Thus while there is clear evidence of a pioneering movement to establish and develop professional nursing in Poland, there is less evidence of a cohesive body of nursing research emerging or a firm commitment to EBP. There is no evidence of a health care research strategy [14]. Overall there is little systematic understanding of the patterns and trends of research being published by Polish nursing scholars, although there have been some attempts recently at local level to conceptualise this [3,14].

## Polish nursing research outputs

An analysis of nursing publications listed in Scopus [21] from Poland was conducted in September 2019. The number of articles categorised as *nursing* within the Scopus database, with listed authorship in Poland, was 3,953. Articles were mostly published in the following Journals: *Pediatrics Współczesna* (n=545); *Journal of the Science of Food and Agriculture* (n=258); *Nutrients* (n=258); *Polish Journal of Food and Nutrition Sciences* (n=218); *Clinical Nutrition* (104); *British Journal of Nutrition* (n=93); *Stroke* (n=91); *Journal of Functional Foods* (n=84) and *Nutrition* (82). A closer examination of the trends revealed that the top ten authors [those who published most

frequently] in the category of ‘nursing’ were not nursing professors nor did they appear to be affiliated to nursing schools. Most of the literature appears to be dietetic focused. However a closer examination of nursing publications from *one specific* university, the Medical University of Lublin (n=102), reassuringly revealed that most (n=7) of the top ten authors had nursing affiliations (Table 1). Indeed there has been a steady increase in these publications, with more than half (n=57) occurring in the past five years. Dr. Beata Dobrowolska, Department of Nursing Development, Lublin, Poland, was listed as the top publisher in the field in this university (n=12) (Table 1). However none of the top 10 nursing authors have a H-index of more than six (Table 1), when the average internationally (at professorial level) is 12 [22]. So while it is reassuring to see that these scholars have been active since the 1990s, output and impact (in terms of citation) remain modest overall and likely not reflective on the ability or productivity of the scholars concerned. This fact is confirmed by a recent analysis of “field of international research by Polish nurses” revealing only 41 papers in the final analysis, many of which (n=8) did not appear in high ranking Journals [3, p.242].

A closer examination of one nursing journal, the *Journal of Nursing Management* (2019), revealed further insight into publication trends from Polish nursing scholars, with just four papers published in the Journal since its foundation in 1993 [23,24,25,26], representing 0.1% of all publications in the Journal. In a first publication in the Journal Kosinska & Niebroj [26] early on discussed the role of the leader in nursing. This insightful paper offered a practical perspective on the important qualities of nurse leaders, but also drawing on personal wisdom and experience. They also highlighted the importance of training for leaders and the role that experience and learning from history (nursing forefathers) can have on the leadership role. They also introduced the Polish term for leader – “lider” (p69). Following this Górajek-Jóźwik [25]

outlined the historical development of primary nursing in Poland. This paper applies critical thinking to a particular aspect of nursing and questions its relevance or potential applicability in the Polish context using an evidence-based approach. The authors highlight the time lag in dissemination of material to Poland as primary nursing in Poland was being considered at a point when this concept had been superseded by more contemporary issues such as person centred care and when such topics have largely gone out of fashion in the nursing domain [27]. However what is interesting is the impetus within the paper to provide direct translations of English language material to Polish nurses to materialise EBP, largely attributed to the foresight of nurses. More recently EBP was explored by Mędrzycka-Dąbrowska et al. [24] who found that significant gaps existed in care provision in relation to pain management in terms of limited guidelines, lack of systematic approach to pain management and lack of standardised assessment approach among surgical nurses (n=1602). Finally Jarosova et al., [23] demonstrated Polish nursing outreach. They researched with an international team to explore job satisfaction among hospital midwives (n=1190) across seven countries. The results reveal widespread job dissatisfaction although this varied according to local and national circumstances. Other than drawing out differences and similarities no particular action was suggested or initiated. However the extent of Polish nursing’s international collaborations is commendable with Dobrowolska & Chrzan-Rodak [3] noting that more all the Polish research papers that they identified (n=41) were the result of international collaborations, usually (n=24) with more than two partners.

The research in these four papers, while commendable reflects a concern with day-to-day operations at the expense of more global concerns and strategy [28], a frequent occurrence within this journal [29]. However a more overarching concern is the investigation of fields that are no longer novel or current within other parts of

■ Tab. 1. Top 10 authors from the Medical University of Lublin, Poland [those who published most frequently] in the category of ‘nursing’ cited in Scopus August 2019

Author	Affiliation	Year of first publication**	H-index	Number of Publications**
Dobrowolska, B.	Medical University of Lublin, Department of Management in Nursing, Lublin, Poland.	2007	6	16 (28)
Zarzycka, D.	Medical University of Lublin, Department of Paediatric Nursing, Lublin, Poland.	2004	4	12 (36)
*Pluta, R.	Mirosław Mossakowski Medical Research Center of the Polish Academy of Sciences, Laboratory of Ischemic and Neurodegenerative Brain Research, Warsaw, Poland	2011	36	10 (211)
Palese, A.	Università degli Studi di Udine, Department of Medical Sciences, Udine, Italy.	2014	16	9 (261)
Ślusarska, B.	Medical University of Lublin, Department of Family Medicine and Community Nursing, Lublin, Poland.	2004	4	8 (32)
Aftyka, A.	Medical University of Lublin, Department of Anaesthesiological and Intensive Care Nursing, Lublin, Poland.	2014	4	6 (16)
*Ułamek-Kozioł, M.	Mirosław Mossakowski Medical Research Center of the Polish Academy of Sciences, Laboratory of Ischemic and Neurodegenerative Brain Research, Warsaw, Poland; Institute of Psychiatry and Neurology, Warszawa, Department of Neurology, Warsaw, Poland.	2013	6	6 (29)
Wrońska, I.	Medical University of Lublin, Department of Family Medicine and Community Nursing, Lublin, Poland.	1994	6	6 (46)
*Furmaga-Jabłońska, W.	Medical University of Lublin, Department of Neonate and Infant Pathology, Lublin, Poland.	2012	9	5 (47)
*Rybojad, B.	Medical University of Lublin, Department of Qualified Medical Aid, Lublin, Poland	2014	5	5 (21)

\*Allied Health Professional/related field \*\*According to this search (overall per author in Scopus)

Europe and the USA. Indeed more comprehensive analyses reveal that Polish scholars have largely concerned themselves with aspects of nursing theory, nursing knowledge, nursing care and tasks [14]. There has also been a focus on survey type research aimed at fundamental care activity and nurses' education with a growing number of instrument validation papers [3].

It does appear that the Polish nursing profession despite their commitment and ambition "continues to be disadvantaged by.... a lack of strong and well established infrastructure for nursing" as Tierney remarked on European nursing in 1998. Encouraging research and EBP requires a specific infrastructure around nurses' roles in relation to research [30]. It is acknowledged that this takes time: "building up a cadre of nurse scientists and a strong supportive research culture appears to be a gradual, incremental process in any country, a process that cannot be rushed" [31, p.17] but it does require "agreed national priorities for nursing" [31, p.17]. The process by which this takes place occurs in various ways:

- Emergence as a "bottom up" initiative, pioneered by forward-looking individual nurses or avant-garde establishments.
- Collective activity in the form of "top down" initiatives- e.g. government support for research training for nurses- and national nurses' association support.
- Gradual growth of a research infrastructure, mainly the result of entry to, or affiliation with, the university system
- A shift from ad-hoc, opportunistic initiatives to a more strategic approach [31, p.15].

Polish scholars now need to harness their heritage in terms of influential "bottom up" and also move from the aforementioned sporadic research initiatives to a more strategic approach [31, p.15]. Determining priorities could involve some type of Delphi approach to prioritize research themes informed by already developed frameworks. The World Health Organization [32] for example, identified four important themes in global strategic development for nursing firstly ensuring an "educated, competent and motivated" workforce within effective and responsive health systems at all levels and in different setting. Secondly "optimizing policy development" and "effective leadership", management and governance in the context of (thirdly) intra- and interprofessional collaborative partnerships, education and continuing professional development and finally "mobilizing political will to invest in building effective evidence based nursing and midwifery workforce development" [32,p.1]. Similarly the European Nursing Research Foundation (ENRF) [33] identified [20] research priority areas as follows:

- Positive practice environments for professional nursing
- Self-care: improvement of health outcomes in chronic processes
- Education and training of nurses in Europe
- Innovation for the improvement of nursing clinical practice

Current approaches to nursing research risk overlap with international research, but also leave considerable gaps in the type of translational impactful research needed for the future [14, p. 171]. What is needed for the future is "multidisciplinary, high-quality research with practical implications", indeed the professional status of nurses in Poland depends on this [34,p.238].

## Opportunities

Consistent EU funding, and the possibility for grant applications and involvement in EU grants is a very positive opportunity for Polish nursing, one that they have grasped with both hands. There is involvement for example in the European Rancare COST project [35]. There is also currently significant investment in hospitals by local governance agencies and in response to recent reform imposed by the Polish Ministry of Health [4]. eHealth is also high on policy makers agenda in Poland, with plans by the Polish Ministry of Health to introduce widespread eHealth measures including prescriptions, appointment systems and health registers in the coming [4]. Indeed Guillemard [36] recently highlighted rapid technological advancements; digital health and real-world data as priority areas in global healthcare research. Certainly these are overarching elements that may inform Polish nursing research for the future and are worth careful consideration in terms of future direction and strategy. It is important too that researchers ought to take consideration of the use of big data sets and digital technology in the context of patient centered care and increasingly aging population.

## The way forward

The potential strengths of Polish healthcare that could be maximized by a nurse led lobby. It has a population of 38.5 million. Health reform is relatively new in Poland (since the 1990s) and there is a relatively newly developed public healthcare system. All of these features render Polish health opportunistically attractive [4]. Given Polish's nursing's history in bottom up reform, it is conceivable then that the nursing body politic could drive a strategic approach to research capacity building in Poland. While it is large undertaking to move forward on a research strategy and an integrated research plan that aims to improve the quality of patient care, there is clearly impetus for this [14]. The Polish Nurses Association, for example, have a clear focus on a professionalising agenda for nurses. Increasingly Polish nursing scholars have been engaging in international cooperation in research in nursing [3]. There is also a growing awareness of the need to encourage improved evidence based practice among nurses, with increasing efforts in this regard [15].

Rather than re-investigating old concepts (unless contextually important) it might be more useful to take Górajek-Jóźwik's [25] leadership approach and target a key area for improvement and aim to translate the already available evidence for practice development. Certainly Zarzycka et al's [14, p.171] next step recommendations were along the lines of implementation and translational research, and a clear gap in "research aimed at improving the quality of care" was noted. They also noted that improving capacity in skills



in systematic review is needed, and this would certainly help with collating the available evidence [14, p.171], although national or local support with translation would be essential.

There are currently substantive amount of single study research projects being performed in Poland, which if arranged and planned in a more cohesive way, could make a large contribution to improvements in clinical nursing practice, EBP or rigorous educational reform. Certainly a recent suggestion to focus on action research, translation of measurement tools, focus group research and nursing theory [14] while not invaluable, would be a considerable drain on already depleted resources. Polish nursing research papers presented (n=150) at a recent conference [5] for example amounted to the equivalent of at least 15,000 hours of work (using a conservative estimate of 100 hours effort per project). This equates literally into 375 weeks or 1.7 years, but up to 7.2 years using whole time equivalent calculations [37]. Therefore considerable resources are already being invested in research, which, if devoted consistently to a single or small number of integrated projects across Polish healthcare services or within a single university, could make a phenomenal difference in the possible scope and size of projects and the ability to focus on outcome related projects.

## CONCLUSIONS

Leadership is strong in Polish nursing [26] with foresight [24] a particular feature. This “lider” ideologically [26,p.69] needs to be strengthened into political action aimed at developing a nursing research strategy and encouraging a cohesive body of nursing research. The profession faces ongoing changes in medicine, health and society as well as policy and professional changes. Judicious leadership will be required to successfully steer and negotiate this ongoing transformation and developing a clear focus on cutting edge research that will position Polish nurses as trailblazers rather than laggards to showcase the obvious talent, commitment and strong work ethic that exists. Multidisciplinary research is important, and existing close relationships with healthcare colleagues should be maximised in this regard. Continued concentration on descriptive studies is futile, and validation studies, while valuable, need to be considered in this context. A research strategy is needed, perhaps fostered through a bottom up approach, but ultimately requires fiscal support in terms of co-operation with international research institutes and national or EU funding. Longitudinal studies and large scale interventionist approaches that explore effects of clinical nursing interventions (including specialist and advanced practice), the effectiveness of nursing leadership and digital health technologies are but some of the areas that this group are poised to lead on. Leadership is also key in this regard and Polish nursing has a huge commitment and historical legacy in supporting the growth and development of nursing profession and its scientific basis, and harnessing this momentum could have far reaching effects.

## REFERENCES

1. Ślusarska B, Zarzycka D, Dobrowolska B, et al. Nursing education in Poland - The past and new development perspectives. *Nurse Education in Practice*. 2018; 31:118-125.
2. Sztembis B. The past, present and future of nurse education in Poland: stages, conditions and activities. *International Nursing Review*. 2006; 53, 102-109.
3. Dobrowolska B, Chrzan-Rodak A. Fields of International Research by Polish Nurses. [In:] Zarzycka D, Ciechaniewicz W (eds.). *The Scientific Achievements of Polish Nursing*. Poland: Medical University of Lublin; 2019. ISBN 978-83-62606-72-6, pp.242-257.
4. Ministry of Foreign Affairs/Netherlands Enterprise Agency (2017) Polish Healthcare Sector Aligning Dutch Smart Solutions to Polish Opportunities. Task Force Healthcare: The Netherlands. Available: <https://www.tfhc.nl/wp-content/uploads/2017/12/TFHC-Market-Study-Poland-2017.pdf> accessed September 17<sup>th</sup> 2019.
5. Polish Nursing Research. Polish Nursing into the Future- challenges and opportunities International Scientific Conference - the scientific achievements of Polish nursing in the context of challenges posed by the process of globalisation of tomorrow. Lublin, Poland, September 13-14<sup>th</sup> 2019. *Book of Abstracts*, Lublin: Gaudium; 2019. ISBN: 978-83-7548-366-6.
6. Brayer A, Foley M, Doroszkiewicz A, et al. Job satisfaction among masters in nursing in central and east poland: a preliminary study. *Family Medicine and Primary Care Review Journal*. 2017; 19(1): 7-11.
7. Jurczak A, Grochans E. The Principles of Advanced Care. [In:] Zarzyckiej D, Ciechaniewicz W. (eds). *The Scientific Achievements of Polish Nursing*. Medical University of Lublin, Poland. ISBN 978-83-62606-72-6, pp.190-213.
8. Marć M, Bartosiewicz A, Burzyńska J, et al. A nursing shortage - a prospect of global and local policies. *International Nursing Review*. 2019; 66(1):9-16.
9. OECD/European Observatory on Health Systems and Policies, Poland: Country Health Profile 2017, State of Health in the EU, OECD Publishing, Paris/European Observatory on Health Systems and Policies, Brussels. 2017. <http://dx.doi.org/10.1787/789264283510-en>
10. Szpakowski R, Zajac PW, Dykowska G, et al. Labour migration of Polish nurses: a questionnaire survey conducted with the Computer Assisted Web Interview technique. *Hum Resour Health*. 2016; 30;14(1):24.
11. Haczyński J, Skrzypczak Z, Winter M. Nurses in Poland – immediate action needed. *Engineering Management in Production and Services*. 2017; 9(2): 97-104.
12. Zgliczyński WS, Cianciara D, Pinka J. Nurses in Poland – staffing and training system. *Postępy Nauk Medycznych*. 2016; 29: 279-283.
13. Marcinowicz L, Owłasiuk A, Perkowski E. Exploring the ways experienced nurses in Poland view their profession: a focus group study. *International Nursing Review*. 2016; 63: 336-343.
14. Zarzycka D, Brodowicz-Król, M, Trojanowska A. The Scope and Methodology of Research Conducted by Polish Nurses. [In:] Zarzyckiej D, Ciechaniewicz W. (eds) *The Scientific Achievements of Polish Nursing*. Medical University of Lublin, Poland. ISBN 978-83-62606-72-6, pp.165-177.
15. Ślusarska B, Nowicki G. Evidence Based Nursing Practice. [In:] Zarzyckiej, D. & Ciechaniewicz, W. (eds) *The Scientific Achievements of Polish Nursing*. Medical University of Lublin, Poland. ISBN 978-83-62606-72-6, pp.178-189.
16. Wąsowska I, Repka I. Promotion of Evidence-Based Nursing by Polish and foreign nursing organizations. *Folia Medica Cracoviensia*. 2015; 54: 65-70.
17. Code of Professional Ethics for Nurses and Midwives in the Republic of Poland, NRPIP, Warsaw 2003.
18. The Act on the Professions of Nurse and Midwife of 15 July 2011. *Journal of Laws of 2011 No.174 item 1039 as amended*.
19. Mędrzycka-Dąbrowska W, Dąbrowski S, Gutysz-Wojnicka A, Basiński A. Polish nurses' perceived barriers in using evidence-based practice in pain management. *International Nursing Review*. 2016; 63(3):316-27.
20. European Nursing Research Foundation (ENRF) (2017) European Nursing Research Foundation (ENRF) Strategic And Operational Research Plan 2017-2020 Nursing. *Nursing Research In Europe: Promoting People's Health and the Sustainability Of Healthcare Systems*. European Nursing Research Foundation. <http://www.enrf.eu/wp-content/uploads/2017/07/ENRF-SORP-2017-2020-Final.pdf> Accessed September 19<sup>th</sup> 2019.
21. Scopus (2019) available at: <https://www.scopus.com/home.uri> accessed 17<sup>th</sup> April 2019.
22. Watson R, Mc Donagh R, Thompson DR. h-indices: an update on the performance of professors in nursing in the *Journal of Advanced Nursing*. 2016; 73(5): 999-1001.
23. Jarosova D, Gurkova E, Palese A, et al. Job satisfaction and leaving intentions of midwives: analysis of a multinational cross-sectional survey. *Journal of Nursing Management*. 2016; 24(1):70-79.
24. Mędrzycka-Dąbrowska W, Sebastian D, Andrzej B. Perception of barriers to postoperative pain management in elderly patients in Polish hospitals - a multicentre study. *Journal of Nursing Management*. 2016; 24(8):1049-1059.

25. Górajek-Jóźwik J. Primary nursing in Poland: theory and experience. *Journal of Nursing Management*. 2004;12(5):317-321.
26. Kosińska M, Niebrój L. The position of a leader nurse. *Journal of Nursing Management*. 2003; 11: 69-72.
27. Thorne S. Does nursing represent a unique angle of vision? If so, what is it? *Nursing Inquiry*. 2015; 22(4): 283-284.
28. Carney M, Crossan F. From strategy to implementation – clinical and academic perspectives. *Journal of Nursing Management*. 2009; 17: 655-658.
29. Timmins F. An overview of 5-year patterns and trends in the *Journal of Nursing Management*. *Journal of Nursing Management* In press. 2019. *Journal of Nursing Management* available at: <https://onlinelibrary.wiley.com/journal/13652834> accessed 27<sup>th</sup> July 2019.
30. Orton ML, Andersson Å, Wallin L, et al. Nursing management matters for registered nurses with a PhD working in clinical practice. *J Nurs Manag*. 2019;27(5):955-962.
31. Tierney A. Nursing Research in Europe. *International Nursing Review*. 1998;1(45): 15-19.
32. World Health Organisation. European strategic directions for strengthening nursing and midwifery towards Health 2020 goals. World Health Organization, Copenhagen, 2015.
33. European Nursing Research Foundation (ENRF) (2019) European Nursing Research Foundation. <http://www.enrf.eu/mission-objectives/> Accessed September 19<sup>th</sup> 2019.
34. Ksykiewicz-Dorata A. Nursing Management and Leadership. [In:] Zarzyckiej D, Ciechaniewicz W. (eds) *The Scientific Achievements of Polish Nursing*. Medical University of Lublin, Poland. ISBN 978-83-62606-72-6, pp.233-241.
35. Belowska B, Iwanow L, Uchmanowicz I, Gotlib J. Rancare Rationing – Missed Nursing Care: An International And Multidimensional Problem – Report On The First Training At Annual Training School – 2017 In Turku (Finland). 2018. DOI: <https://doi.org/10.20883/pielpol.2018.28>
36. Guillemard M. Health Writing Trends in 2018: What Does the Future Hold. 2018. Available at: <https://www.healthwriterhub.com/health-writing-trends-2018/> April 12<sup>th</sup> 2019.
37. Public Spend Forum (2019). Public Spend Forum. <https://www.publicspendforum.net/blogs/psfeditorial/2019/04/04/calculate-full-time-equivalent-work-hours-year/> accessed October 3<sup>rd</sup> 2019.

Manuscript received: 27.09.2019

Manuscript accepted: 04.11.2019