# Pielęgniarstwo Neurologiczne i Neurochirurgiczne THE JOURNAL OF NEUROLOGICAL AND NEUROSURGICAL NURSING

eISSN 2299-0321 ISSN 2084-8021 www.jnnn.pl

DOI: 10.15225/PNN.2019.8.3.4

# Professional Development of Neurosurgical Nurses. Preliminary Reports

# Doskonalenie zawodowe pielęgniarek neurochirurgicznych. Doniesienia wstępne

## Robert Ślusarz

Neurological and Neurosurgical Nursing Department, Faculty of Health Science, Collegium Medicum, Nicolaus Copernicus University, Toruń, Poland

#### Abstract

**Introduction**. Constant updating and expanding the scope of professional knowledge is the responsibility of every nurse/midwife and the basic condition for proper practice. The professional development of nurses in the field of neurology and neurosurgery includes professional activity as part of self-education or organized forms and types of postgraduate education through undergoing specialist training, acquiring professional skills in the narrower fields of nursing or providing specific health services and improvement in other forms of education. The conducted research indicates that the career path for neuro-nurses is unregulated and varies in different countries. **Aim**. The aim of the study was to analyse the professional development of neurosurgical nurses.

**Material and Methods**. The study was conducted on a group of 93 nurses employed in 6 neurosurgical centres in the Kuyavian-Pomeranian voivodeship. Professional improvement was assessed using a diagnostic survey with a survey questionnaire. The issues related to pre- and post-graduate education and professional experience were analysed.

**Results**. The most popular form of postgraduate education is the development course and congress/conference/ symposium. Most people said that their training was financed by the employer or own/private funds. No specific training for neurosurgical nurses was demonstrated. Among the difficulties/problems related to professional development, the lack of time for training and the lack of interesting training topics were indicated most often. Most respondents have no opinion on whether professional training should be based on the award of educational/ credit points.

**Conclusions**. The conducted research indicates a large diversity in the area of pre- and post-graduate education. There was also a lack of a consistent career path for neuro-nurses. (JNNN 2019;8(3):119–123)

Key Words: neuro-nursing, pre- and post-graduate education, professional experience

#### Streszczenie

**Wstęp**. Stała aktualizacja i poszerzanie zakresu wiedzy zawodowej jest obowiązkiem każdej pielęgniarki/położnej oraz podstawowym warunkiem prawidłowego wykonywania zawodu. Doskonalenie zawodowe pielęgniarek w dziedzinie neurologii i neurochirurgii obejmuje aktywność zawodową w ramach samokształcenia lub zorganizowanych formach i rodzajach kształcenie podyplomowego poprzez odbywanie szkolenia specjalizacyjnego, nabywanie umiejętności zawodowych z zakresu węższych dziedzin pielęgniarstwa lub udzielania określonych świadczeń zdrowotnych oraz doskonalenie w innych formach kształcenia. Przeprowadzone badania wskazują, że ścieżka kariery zawodowej dla neuropielęgniarek, jest nieuregulowana i różna w różnych krajach.

Cel. Celem badań była analiza doskonalenia zawodowego pielęgniarek neurochirurgicznych.

**Materiał i metody**. Badania przeprowadzono na grupie 93 pielęgniarek zatrudnionych w sześciu ośrodkach neurochirurgicznych na terenie województwa kujawsko-pomorskiego. Za pomocą sondażu diagnostycznego, techniką ankietową z wykorzystaniem kwestionariusza ankiety dokonano oceny doskonalenia zawodowego. Przeanalizowano zagadnienia dotyczące kształcenia przed i podyplomowego oraz doświadczenia zawodowego.

**Wyniki**. Najbardziej popularną formą kształcenia podyplomowego jest kurs dokształcający oraz zjazd/konferencja/ sympozjum. Większość osób stwierdziła, że ich szkolenia były finansowane przez pracodawcę lub środki własne/

Original

prywatne. Wykazano brak szkoleń specyficznych dla pielęgniarek neurochirurgicznych. Wśród trudności/problemów związanych z doskonaleniem zawodowym, najczęściej wskazywano na brak czasu na szkolenie oraz brak interesującej tematyki szkolenia. Większość badanych nie ma zdania dotyczącego tego czy kształcenie zawodowe powinno być oparte na przyznawaniu punktów edukacyjnych/kredytowych.

Wnioski. Przeprowadzone badania wskazują na duże zróżnicowanie w obszarze kształcenia przed i podyplomowego. Wykazano także brak spójnej ścieżki kariery zawodowej dla neuropielęgniarek. (PNN 2019;8(3):119–123) Słowa kluczowe: neuropielęgniarstwo, kształcenie przed i podyplomowe, doświadczenie zawodowe

### Introduction

According to recent reports published by Global Burden of Disease (GBD), neurological diseases are considered to be the leading cause of disability and the second leading cause of death [1]. The prevalence of neurological diseases varies significantly in individual countries and depends, among others, on factors, such as demography, lifestyle, health infrastructure. Nevertheless, the prevalence of neurological disorders is still too little known due to the lack of medical personnel, appropriate training, tools and diagnostic equipment [2].

Neurological patients require coordinated care provided by nurses educated in the field of, among others, appearing deficits in self-care, understanding pathophysiological disease processes and preparing the families and carers for further care of people with complex needs [3]. Health care systems demand that nurses are flexible skilful workers who maintain currency and competency in order to deliver safe effective patient centred care. Constant updating and expanding the scope of professional knowledge is the responsibility of each nurse/midwife and the basic condition for the proper performance of the profession [4].

The aim of the study was to analyse the professional development of neurosurgical nurses.

#### Material and Methods

The study was conducted on a group of 93 nurses employed in 6 neurosurgical centres in the Kuyavian-Pomeranian voivodeship. Professional development was assessed using a diagnostic survey with a survey questionnaire. The issues of pre- and post-graduate education and professional experience were analysed in comparison with selected socio-demographic variables, such as: age, place of work, internship in the department, education. The study was approved by the Ethics Committee (KB: 739/2017)

The hypotheses were verified based on the U Mann– Whitney test and the Kruskal–Wallis test. The statistical significance level was set at P≤0.05. All calculations were made in the Statistica program (version 10.0).

### Results

The most popular form of postgraduate education is a refresher course (87 people) and a congress/conference/ symposium (48 people) (Figure 1).

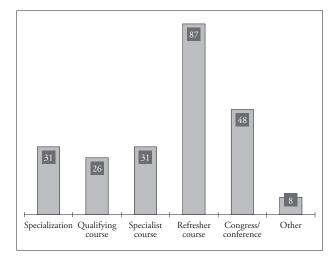


Figure 1. Forms of postgraduate education

Research results indicate that the most common source of financing a professional training are own/private funds (81 people) and co-financing from workplaces (77). The least people indicated professional organizations as a source of financing professional training (Figure 2).

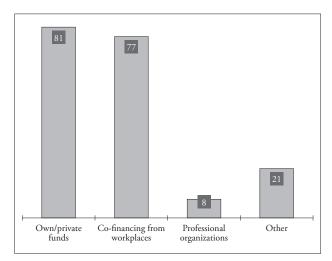


Figure 2. Sources of financing vocationals training

No specific training for neurosurgical nurses was demonstrated (Figure 3). Osteoarthritis of the spine (81 people), vascular diseases (78 people) and intensive neurosurgical therapy (56 people) turned out to be the most preferred subjects (Figure 4).

Among the difficulties/problems related to professional development, the most frequent were the lack of time for training (87 people), the lack of interesting training topics (85 people) and the difficulties with financing of the training (41 people) (Figure 5).

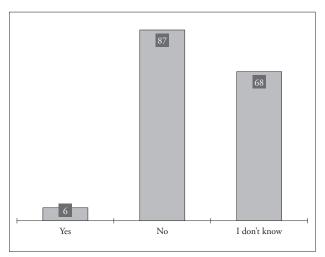


Figure 3. Specific training for neurosurgical nurses

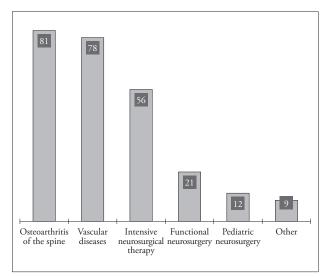


Figure 4. Difficulties/problems related to professional development

Table 1. Analysis of variables and issues related to pre and postgraduate education

Most of the respondents have no opinion on whether professional training should be based on the award of educational/credit points (76 people).

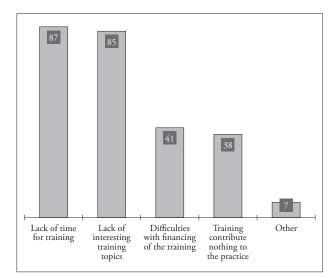


Figure 5. Vocational training and educational/credit points

The conducted analyses showed that age has a statistically significant impact on preferred types/forms of education, sources of financing and opinion on awarding the educational points for professional training. In turn, the workplace statistically significantly affects only the knowledge of training/courses specific to neuro-nursing. It was also shown that the practice in the department influences the preferred types/forms of education, financing of professional training and the opinion regarding the awarding of educational points for professional education. In turn, professional education has a statistically significant impact on the preferred types/forms of education and on the opinion regarding the awarding of educational points for professional education and on the opinion regarding the awarding of educational points for professional education and on the opinion regarding the awarding of educational points for professional education and on the opinion regarding the awarding of educational points for professional education and on the opinion regarding the awarding of educational points for professional education and on the opinion regarding the awarding of educational points for professional education (Table 1).

Variable			
Age*	Place of work**	Internship in the department*	Education**
< 0.0001	>0.05	< 0.001	< 0.0001
< 0.01	>0.05	< 0.001	>0.05
>0.05	< 0.001	>0.05	>0.05
>0.05	>0.05	>0.05	>0.05
< 0.01	>0.05	< 0.01	< 0.001
	<0.0001 <0.01 >0.05 >0.05	Age* Place of work**   <0.0001	Age* Place of work** Internship in the department*   <0.0001

\*Test U Manna–Whitneya; \*\*Test rang Kruskala–Wallisa

### Discussion

The aim of this study was to assess professional development among neurosurgical nurses. This study has shown that there are large variations in pre- and post-graduate education. There was also a lack of a consistent career path for neuro-nurses. However, nurses recognize the need for professional development, and choose a form of training from a rich training offer in the form of refresher courses and conventions/ conferences/symposia. Also the studies conducted by Bidzińska et al. [5] showed that nearly 67% of surveyed nurses raise their qualifications. In turn, in the studies by Braine et al. [3] 90.9% of United Kingdom nurses participate in courses and training on neuroscience. Most respondents, i.e. 77% participated in conferences, 69% in science days. In turn, the employer provided nearly 46% of training. While in my study, the financing of professional training was covered in 88% from own funds and in 83% from the workplace. The results of the survey in the studies by Braine et al. [3] show that employers are very much involved in financing neuroscience nursing, with 84.3% of education/training is fully (59.3%) or partially funded (25%). While 10.2% of respondents covered the costs of qualifications from their own resources. To develop evidence-based neuroscience practice in Europe, more investment in subsidies and funding for education is needed. The purpose of education is to improve the provision of care by improving the skills, knowledge and abilities of obtaining information, analysing, researching and using innovation. This requires quality improvement, evidencebased practice and research that must be linked together. This requires a balance in the development of neuronursing, thanks to which knowledge and skills are raised through scientific research programs, and evidence-based practice is disseminated and available [3,5].

However, it should be pointed out that nurses have limited opportunities to raise professional qualifications. On the one hand, this is due to the shift work system, on the other — it is necessary to pay for various forms of postgraduate education, while it is known that medical staff is not a well-equipped professional group (financial barrier). The study I conducted showed that the biggest difficulties related to professional development are the lack of interesting training topics, the lack of time for training and difficulties in financing them. On the other hand, the study conducted by Bidzińska et al. [6] showed that high costs of education and lack of financial motivation after completing courses are the main reasons for the reduced motivation to undertake education. On the other hand, in the study conducted by Szymczak et al. [7], financial barriers, too big distance between the place of training and the place of residence and inconvenient dates have the most significant impact on

the difficulties encountered by the respondents in raising their qualifications. In turn, Wozowczyk [8] lists the following as the main components impeding education: no training leave (49.2%), absence from work/scheduling difficulties (33.9%), connecting family and home responsibilities, jealousy of friends and a long distance from the place of residence to the university (27.3%).

The motivating factors to participate in professional development also play an important role. Analyses conducted in various studies have shown that the highest-rated motivating factors include: motivation from superiors, financial benefits, willingness to broaden knowledge and skills, as well as maintaining the current professional position, or the possibility of gaining new employment [5,7–9].

### Conclusions

The conducted research indicates a large diversity in the area of pre- and post-graduate education. There was also a lack of a consistent career path for neuro-nurses. Therefore, it is necessary to create a development strategy in the neuro-nursing environment. The progressively increasing burden of neurodegenerative diseases as a consequence leads to the need to develop nurses' knowledge and to understanding of the conditions and their care management. Continuing professional development is regarded as part of the nursing role in the National Health Service.

### **Implications for Nursing Practice**

Undertaking professional development by persons practicing medical professions, including nurses, is one of the basic elements of lifelong learning and professional development of the most practiced medical professions. The basic condition for holistic patient care is welltargeted and properly conducted professional education of nurses. Continuous professional development of nurses translates into the improvement of quality, as well as effective and efficient nursing and care for patients with neurological diseases. Personnel training increases the effectiveness of achieving the objectives and the efficiency of the functioning of the health care facility.

#### Acknowledgments

I would like to thank the nursing teams for their kind cooperation and enabling the performance of the research.

## References

- [1] Hay S.I., Abajobir A.A., Abate K.H. et al. GBD 2016 DALYs and HALE Collaborators. Global, regional, and national disability-adjusted life-years (DALYs) for 333 diseases and injuries and healthy life expectancy (HALE) for 195 countries and territories, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet.* 2017;390(10100):1260–344.
- [2] Luna J., Leroi C., Preux P.M., Ngoungou E.B., Marin B., Boumediene F. Screening Questionnaires to Detect Neurological Disorders in Developing Countries: A Systematic Review. *Neuroepidemiology*. 2020;54(1):24– 32. doi: 10.1159/000502234.
- [3] Braine M.E., Cook N. An evaluation of post-registration neuroscience focused education and neuroscience nurses' perceived educational needs. *Nurse Educ Today*. 2015;35(11):1069–1074.
- [4] Govranos M., Newton J.M. Exploring ward nurses' perceptions of continuing education in clinical settings. *Nurse Educ Today*. 2014;34(4):655–660.
- [5] Bidzińska E., Sobczak M.D., Rakowska K.A. Motywy podwyższania wykształcenia przez pielęgniarki Wojewódzkiego Szpitala Zespolonego w Elblągu. *Probl Pielęg.* 2007;15(2–3):197–202.
- [6] Cepero J. Differences among quality improvement, evidence-based practice, and research. J Neurosci Nurs. 2011;43(4):230–232.
- [7] Szymczak B., Gotlib J. Ocena możliwości doskonalenia zawodowego wśród położnych zatrudnionych w wybranych szpitalach na terenie województw: mazowieckiego, podlaskiego, lubelskiego i warmińsko-mazurskiego. *Współczesne Pielęgniarstwo i Ochrona Zdrowia*. 2017;6(3): 91–97.

- [8] Wozowczyk M. Kształcenie podyplomowe pielęgniarek na studiach pomostowych. Zeszyty Naukowe Państwowej Wyższej Szkoły Zawodowej im. Witelona w Legnicy. 2012;8: 73–79.
- [9] Palczewska A. Analiza kształcenia podyplomowego pielęgniarek i położnych na północno-wschodnim Mazowszu. *Probl Pielęg.* 2008;16(3):285–292.

#### **Corresponding Author:**

Robert Ślusarz

Department of Neurological and Neurosurgical Nursing, Faculty of Health Science,

The Ludwik Rydygier Collegium Medicum in Bydgoszcz, The Nicolaus Copernicus University Toruń, Poland Łukasiewicza 1 street, 85-821 Bydgoszcz, Poland e-mail: zpielnin@cm.umk.pl ORCID: 0000-0001-6087-1893

#### Conflict of Interest: None

Funding: Grant of the Polish Association of Neurological Nurses

Author Contributions: Robert Ślusarz<sup>A-I</sup>

(A — Concept and design of research, B — Collection and/or compilation of data, C — Analysis and interpretation of data, D — Statistical analysis, E — Writing an article, F — Search of the literature, G — Critical article analysis, H — Approval of the final version of the article, I — Acquisition of assets [eg financial])

**Received**: 6.06.2019 **Accepted**: 28.07.2019