
Original articles

Introducing science for nursing in Croatia: publishing trends in the *Sestrinski Glasnik/Nursing Journal*

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Abstract We reflect on the impact of the Master of Science in Nursing Diploma course, introduced in the two Croatian universities, on the structure and contents of the *Sestrinski Glasnik/Nursing Journal* (SG/NJ), the official journal of the Croatian Nurses Association (CNA). After the introduction of the course, the quantity and quality of the nurses' publications in the journal improved. Education and research work are needed to strengthen position of nursing as an independent scientific discipline in Croatia. SG/NJ can serve as a platform for the joint efforts of specialists from various clinical and research backgrounds to facilitate the transition of nursing towards advanced research reporting and evidence-based practice.

Keywords Nursing education; nursing research; academic title; periodicals as topic.

Introduction

Scientific research is the basis of any discipline. The dissemination of existing and emerging knowledge in the field of nursing should be encouraged to further the development of theory and practice of this relatively new discipline. Scientific journals can be instrumental in this process by publicising creative ideas, promoting innovations and reaching out to readers with related interests.¹⁻³

Proper science writing is an indispensable tool for cultivating scientific tradition and establishing a community of highly skilled nurses.^{4,5} Croatian nurses may acquire writing skills by regularly reading and contributing to high-quality nursing journals. Publishing in good journals will improve their career prospects and build relationships within the medical community.

Most articles published by nurses in Croatia are based on their Master or Doctoral degree courses. The most successful nursing students are incentivised for their studies, but this, however, is not sufficient for advanced nursing education and practice.⁶

The *Sestrinski Glasnik/Nursing Journal* (SG/NJ) is a medium for scholarly communication which focuses on standard and new forms of treatments and overviews the existing guidelines for nursing and midwifery. It also covers current issues in treatment strategies and quality of patient care.⁷ It is widely known that 70% of quality nursing comes from competence and 30% from confidence: our journal strives to improve our nurses' performance in both aspects.

Over the past decades, the education and the working

environment of nurses in Croatia have become increasingly discordant. The new generation of nurses has improved their knowledge and skills, but the working conditions have not changed. Young graduates with a three-year Bachelor degree in nursing are now more competent in their field than their less educated though more experienced older colleagues.

The Master in Nursing programme started at the University of Zagreb and the University of Osijek in the 2011-2012 academic year. One of the main objectives of the programme was to teach nurses how to analyse scientific evidence and translate it into their daily practice. With a robust scientific background, nurses should be capable of taking the lead in specialist clinical teams (eg, nursing care, cardiology) and overcome the discordance between what they are taught and what they encounter in practice. So far, 48 nurses have graduated from the Masters' courses. Additionally, 65 first-year and 61 second-year full-time students are undertaking training.

The SG/NJ has undergone some important changes in the past few years. A new website for the journal was launched in 2011, with the cover page and layout of each issue being improved and the instructions for authors updated. Several sections of the journal were introduced: original articles, reviews, patient safety articles, etc. The journal adopted the ethical publishing guidance of the International Committee of Medical Journal Editors (ICMJE) and the Committee on Publication Ethics (COPE).

The aim of this study was to analyse the influence of the master programme in nursing on some quantitative features of the nurses' publications in Croatia, specifically on the number of articles in the SG/NJ before and after the introduction of the programme.

Methods

We recorded the number and type of the published articles, and the structure of graduate education of all the authors of the SG/NJ before and after the introduction of the Master in nursing courses in Croatia in 2011. The authors' data (number of authors of each article, their level of education, their academic title) and article type (original article, review, patient or workplace safety article, brief communication, case report, and letter) were reported. We reviewed all issues and analysed web traffic data during 2008-2010 and 2011-2013. Web traffic was chosen as an indicator of the global interest of the readership, particularly the nursing community, in the journal.

Results and discussion

Each item had on average 2.0 pages. The material analysed totalled 6 volumes, 18 issues, 182 articles, and 1278 pages (Table 1).

Table 1. Number of articles published in *SG/NJ* during 2008-2010 and 2011-2013 with at least one nurse as author

Vol/N/ Year	No. of pages	Subject category							Authors			
	No. of pages per issue	OA	Rev	PSA	WSA	BC	CR	LT	Nurses	Ms nurses	Medical doctors/ others	
Old layout												
13/1/2008	66	2	3	0	0	0	0	0	8	0	4	
13/2/2008	52	2	2	0	0	0	0	0	8	0	3	
13/3/2008	56	1	3	0	0	0	0	0	9	0	3	
13/4/2008	80	3	3	0	0	0	0	0	6	0	4	
14/1/2008	80	2	4	0	0	0	0	0	7	0	2	
14/2/2009	64	3	3	0	0	0	0	0	8	0	4	
14/3/2009	60	2	3	0	0	0	0	0	6	0	4	
14/4/2009	62	1	4	0	0	0	0	0	9	0	4	
15/1-2/2010	60	2	3	0	0	0	0	0	10	0	2	
15/3-4/2010	60	2	2	0	0	0	0	0	11	0	4	
Total issues	10	640	20	30	0	0	0	0	82	0	34	
New layout												
16/1-2/2011	84	7	5	0	1	4	2	4	29	0	4	
16/3/2011	64	3	2	1	0	4	0	2	25	0	3	
17/1/2012	68	5	2	2	0	1	0	4	17	0	4	
17/2/2012	76	4	1	2	0	2	0	4	25	0	0	
17/3/2012	74	5	4	2	1	3	1	3	22	5	2	
18/1/2013	84	6	5	0	0	7	0	5	26	8	6	
18/2/2013	82	8	1	0	0	4	1	0	23	7	2	
18/3/2013	106	7	3	1	1	2	0	0	16	6	2	
Total issues	8	638	45	23	8	3	27	4	22	183	26	23
TOTAL (old + new)	18	1278	65	53	8	3	27	4	22	265	26	57

Key: OA-Original Article; Rev-Review article; PSA-Patient safety article; WSA-Workplace safety article; BC-Brief communication; CR-Case report; LT-Letter to the Editor.

Our results indicate that nurses with a Master's degree publish in the *SG/NJ* more frequently than nurses without master's level education. It may be the result of training in scientific communication as a part of their university studies.

We noted that there were no foreign authors, which highlights the need for facilitating international scientific cooperation. This might raise publication standards in our journal, which, in turn, might lead to better research performance of our nurses and future publications in internationally renowned journals.

When we cross-tabulated article type against author education, it was found that two thirds of the authors (211 out of 348) of original research articles were nurses with a Bachelor degree. Medical doctors (MDs) frequently authored reviews and editorials, while nurses with a Master's degree authored all items on patient or work safety, brief communications, and case reports. This suggests that Master's degree nurses were increasingly involved in research in 2011-2013. Preventive care with a focus on patient and work safety became a key feature of their publications.

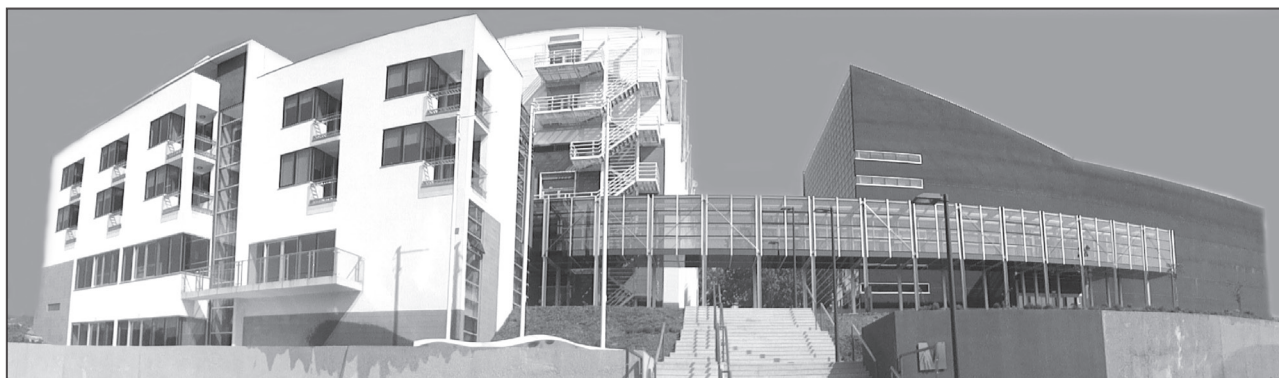
In 2008-2010, the *SG/NJ* was available online at the Croatian Nurses Association website (www.hums.hr), and its annual visits ranged between 4,700 and 5,000. The journal's website became a part of the Croatian Academic Community (HRCAK, www.hrca.hr) in 2011. As a result, the annual traffic increased to 7,029 visits in 2011, 10,016 in 2012, and 17,162 in 2013.

It has long been believed that nurses do not read scholarly journals, mainly because of difficulty in understanding the basics of research reporting and publishing.⁸ However, current trends in the *SG/NJ* indicate that properly educated nurses are confident in scientific writing and are open to communication with the global scientific community. In the current transition phase, it is rewarding to see how Croatian nurses are gaining interest in reading and publishing in our journal. The *SG/NJ* can now be viewed as a tool for the implementation of strategic changes in nursing. We strongly believe that articles on challenges encountered by nurses, especially at the beginning of their career, can be useful for advancing nursing practice and orienting it towards research.

Although articles on nursing issues should primarily accumulate in the journals indexed under the nursing category,⁹ we feel that a multidisciplinary approach is also warranted to enhance nursing research studies and expand collaboration with experts from diverse clinical and research backgrounds.

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