TELE-EDUCATION IN NURSING CONTINUING EDUCATION PROGRAMMES: A LITERATURE REVIEW

Diogo Jacintho Barbosa MSc1,2, Nadia Cristina Pinheiro Rodrigues PhD2, Inês Nascimento de Carvalho Reis PhD2,3

1 Rio de Janeiro Telehealth Laboratory, Rio de Janeiro State University (UERJ), Brazil
2 Department of Information Technologies and Health Education, Faculty of Medical Sciences, Rio de Janeiro State University (UERJ), Brazil
3 Germano Sinval Faria School Health Centre, Sergio Arouca National School of Public Health (ENSP), Oswaldo Cruz Foundation (FioCruz), Brazil

Abstract
This study is a literature review on the use of tele-education as a tool for the implementation of Continuing Education Programmes in nursing. The purpose was to evaluate the use of the Internet to facilitate the participation of nursing professionals in Continuing Education Programmes, in order to improve and systematise nursing care. We conclude that the Internet constitutes an important tool which can aid in quality assurance in nursing, and in implementing systematisation of nursing care.

Keywords: continuing education; nurses; telemedicine

Introduction
Continuing education is a strategy for training nursing professionals which can be used for constructing technical and scientific, ethical, socio-cultural, and relationship knowledge, involving the day-to-day operations of institutions where professionals work, in order to ensure proper implementation and execution of nursing actions in an organised and systematic manner.1

Brazil’s Unified Health System (SUS) includes strategies for strengthening the National Policy of Continuing Education in Health.2 This states that “Continuing Education is the educational concept in the health sector for providing organic relationships among health education, actions and services, and between teaching and health care. With Brazil’s Health Sector Reform, this was expanded to include the relationship between training and management, institutional development and social control in the health sector.”

The purpose of this study was to evaluate the use of the Internet to facilitate the participation of nursing professionals in Continuing Education Programmes, in order to improve and systematise nursing care.

Methods
This is a literature review on the use of Tele-education in Nursing Continuing Education Programmes. Data collection was performed using the following two databases: the Latin American and Caribbean Centre on Health Sciences Information (LILACS), and the US National Library of Medicine of the National Institutes of Health (PubMed), with articles published from 2000 to 2015. The following keywords were used: “Educação Continuada”, “Enfermagem”, “Telemedicina”, and MeSH terms: “Continuing Education”, “Nurses,” and “Telemedicine”, respectively. The inclusion criteria were based on articles in Portuguese or English involving nursing professionals and students, citing the use of telemedicine and tele-education for implementing nursing education programmes. Articles from the literature review addressing other categories were excluded. The choice of articles was made by reading the abstracts in order to verify which articles were in accordance with the previously established inclusion and exclusion criteria.

Results
The database search returned a total of forty-one articles, 40 in the PubMed and one in the LILACS. Of these, six articles were selected which satisfied the previously established criteria. The data analysed
were: year and country of publication; type of service; professional category of the participants; and professional category of the scientific journal in which the article was published. (Table 1)

Our results show that the first publication on tele-education in Continuing Education Programmes occurred in London in 2001 with subsequent publications in the United States in 2003 and 2006 Australia in 2005 and 2012, and Brazil in 2013. The services covered by Continuing Education Programmes in nursing were: Primary Care (3 papers), Emergency (2 papers), and Mental Health (1 paper).

The use of tele-education in continuing education for different types of services suggests that this type of education can be applied to all levels of nursing professionals (such RNs or LPNs in the US, etc.), to cover the entire nursing staff. Although all the articles selected mention nursing staff, they were published in journals covering Health Information Technology, Telemedicine, and Public Health. All the articles had at least one nurse on their team of authors, which suggests that nursing has been keeping up with the changes occurring not only in the labour market, but also technology.

**Discussion**

Despite the filter involving any of several keywords and the inclusion of articles not only in English but also in Portuguese, only a small number of articles were found, suggesting the need for more research in this area. Based on the papers identified, it was possible to perform a critical reading and later develop the data analysis.

The distribution by year showed that there has been ongoing research into tele-education and its application in health. Our search was however limited to 2015 and there may be more papers published since then. On the other hand, it is interesting to note that in this year, the articles that addressed tele-education and its use in continuing education covered the entire multi-professional team, not just nursing. This fact is consistent with the ongoing need to promote professional qualification through the process of systematic training, ensuring access to sources of quality learning materials.

Access to quality education has been increasingly difficult, given that many professionals do not feel motivated to participate in continuing education projects offered by the institutions, since many of these programmes are conducted “between shifts”. In order to reduce this problem of scheduling conflicts between work shifts and education offerings, the use of tele-education has been proposed for implementing continuing education programmes, whether offered synchronously or asynchronously.

It should be noted that in all the items, the new

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<th>Authors and Year of Publication</th>
<th>Title</th>
<th>Database</th>
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<tr>
<td>Tachakra S et al. 2001³</td>
<td>Using Telemedicine for Distance Education</td>
<td>PubMed</td>
<td>Journal of Telemedicine and Telecare</td>
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<tr>
<td>Foster PH et al. 2005⁴</td>
<td>The role of nurses in telemedicine and child abuse</td>
<td>PubMed</td>
<td>Computer, Informatics, Nursing</td>
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<tr>
<td>Meresman JF et al 2003.⁹</td>
<td>A Case Report: Implementing a Nurse Telecare Program for Treating Depression in Primary Care</td>
<td>PubMed</td>
<td>Psychiatric Quarterly</td>
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<tr>
<td>Bulbrook K et al. 2012⁷</td>
<td>Treating mental health in remote communities: what do remote health practitioners need?</td>
<td>PubMed</td>
<td>Rural and Remote Health</td>
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<tr>
<td>Sanches LMP. 2013⁸</td>
<td>Telehealth: search system of clinical cases for Family Health Strategy</td>
<td>LILACS</td>
<td>Virtual Library Campinas University</td>
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mode of implementing continuing education has had significant positive effects, with participants rating the educational experience as rewarding. Factors for success included the fact that scheduling a class does not depend on group size, in addition to the fact that asynchronous courses give professionals the freedom to set up their own study schedule.\(^7\,^{10}\)

Thus, we emphasise that the use of tele-education as a tool for the implementation of programmes of continuing education has been shown to be a promising strategy, due to its ability to produce a significant impact on the education of health professionals, by incorporating new media in the construction and re-construction of knowledge in health which can favour adherence to courses, thus contributing to enhance the quality of health care delivery.\(^6\)

Meanwhile, it should be pointed out that the articles also indicated a factor which can hinder the implementation of continuing education using these methods, which is the need of the participant have a good or reasonable Internet connection, in order for them to be able to participate actively in the available online activities.\(^9\)

**Conclusions**

The Internet continues to become an increasingly important vehicle for the dissemination of information, and is now being used as a strategy for implementing continuing education, constituting an important tool which can help in ensuring quality in nursing care and implementing systematisation for nursing. However, it is necessary for major investments in online access to be made universally available and improved, in order to provide access to all interested professionals, including in remote regions of the country.

That only a few articles were found suggests a need for more studies on this subject, mainly because the results demonstrated that the participants felt that the online continuing education can be an effective strategy for health professionals – especially in the case of nursing, where tele-education offers the advantage of being able to better accommodate the work schedules of nursing professionals.

**References**