



REVISIONES

Blog of use as continuing education strategy in nursing: an integrative review of literature

O uso do blog como estratégia de educação continuada em enfermagem: uma revisão integrativa da literatura

El uso de blog como estrategia de formación continua en enfermería: una revisión integradora de la literatura

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ABSTRACT:

Objective: To identify scientific papers on the use of blogs by nurses as a tool for continuing education.

Method: This integrative literature review of full-text articles, the formulated research question was: "What is known about the use of blogs by nurses as educational technology?"

Results: Databases, such as CINAHL, IBECs, Web of Science, were searched. Eight articles were selected after using inclusion and exclusion criteria.

Conclusions: It was stated that the use of blogs as a strategy for continuing nursing education has innovative potential and creates an accessible space for information, reflection and collaboration among users, allowing best practices to be spread and professional performance optimization.

Keywords: Blogs; Computer-Assisted Instruction; Continuing Education Nursing.

RESUMO:

Objetivo: Identificar a produção científica acerca da utilização de blogs por enfermeiros como ferramenta para educação continuada.

Método: Trata-se de uma revisão integrativa de literatura de artigos completos, norteada pela questão de pesquisa: "O que se sabe sobre a utilização de blogs por enfermeiros como tecnologia educacional?"

Resultados: Foi realizada busca online nas bases de dados CINAHL, IBECs e *Web of Science*. Após serem aplicados os critérios de inclusão e exclusão, foram selecionados para análise nove artigos.

Conclusões: A utilização do blog como estratégia de educação continuada em enfermagem possui potencial inovador e abre um espaço para a informação, reflexão e colaboração entre os usuários, disseminando boas práticas e melhorando o desempenho profissional.

Palavras chave: Blogs; Instrução por Computador; Educação Continuada em Enfermagem.

RESUMEN:

Objetivo: Identificar la producción científica sobre la utilización de blogs por enfermeros como herramienta para la formación continua.

Método: Se trata de una revisión integradora de literatura de artículos completos, orientada hacia la cuestión de la investigación: "¿Qué se sabe sobre la utilización de blogs por enfermeros como tecnología educacional?"

Resultados: Se realizaron búsquedas on line en las bases de datos CINAHL, IBECs, Web of Science. Después de aplicados criterios de inclusión y exclusión, se seleccionaron nueve artículos para el análisis.

Conclusiones: La utilización de los blogs como estrategia de formación continua en enfermería tiene potencial innovador y abre un espacio para la información, reflexión y colaboración entre los usuarios, diseminando buenas prácticas y optimizando el desempeño profesional.

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Palabras clave: Blogs; Instrucción por Computador; Formación Continua en Enfermería.

INTRODUCTION

The use of new technologies brings along new necessities, often increasing the intensity of work, and requiring knowledge multidisciplinary, along with workers with diverse and complementary specialties. The process for innovation is complex, non-linear, uncertain and requires interaction among professionals, institutions and managers.

Technological innovation, used on behalf of health, contributes directly to the quality, efficacy, effectiveness and safety of care; that is, when used in a proper way, technological innovations create the conditions that contribute to healthy living among the individuals who in society are products and producers. Thus, it is believed that there is room for technology and ethical / humanized care ⁽¹⁾. Digital technology offers opportunities for the health settings to have movable learning strategies ⁽²⁾.

The word "*blog*" is an abbreviation of the term "*Web log*": a *web* record ⁽³⁾. Its screen design resembles a web page. Keeping a log (a kind of diary) means posting regular messages and relatively short information, which may be of interest to other people. Information varies from issue to issue, and may include photos, videos or audio clips, depending on the *blog* capacity, its *host*, and platform. Even though keeping a log is mostly a family activity, what makes *blogging* special is that messages are shared with a large number of people.

Blogs may be in the public domain, allowing everyone which has internet access to read them. They may also be non-public, being accessible through a password system ⁽⁴⁾. A blog aims principally at disseminating information and sharing ideas or experiences with other people.

Blogs are nowadays one of the main communication channels on Internet. They have been used by both companies and independent professionals to easily and quickly disseminate their ideas. Basically, a *blog* is a set of short or long messages that are known as *posts*. These messages are arranged in descending order according to the date of publication.

The increase of blog use clearly shows a great trend, which is the fact that people have the need to share knowledge and make themselves known in the world. The vast network of *blogs* makes up the so-called blogosphere, whose communication power grows day by day⁽⁵⁾.

Thus, considering the importance of blogs, the purpose of the present study was to characterize the scientific production about the use of blogs by nurses as a tool for continuing education.

METHOD

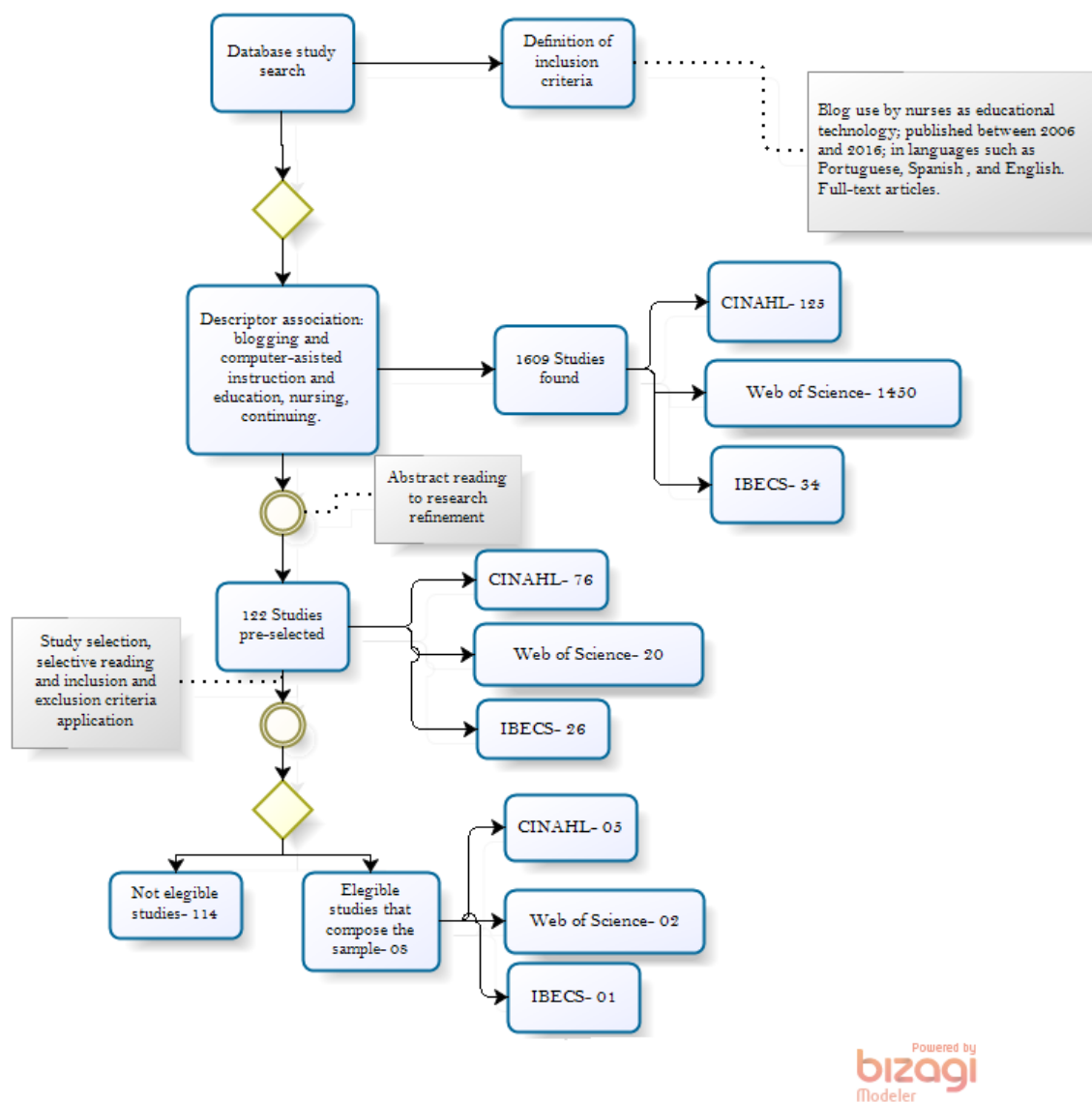
This is an integrative review of the literature⁽⁶⁾, a research method that enabled the search, evaluation and synthesis of available evidence on the use of *blogs* by nurses for continuing education.

Six stages of this method were followed: formulation of the research question, literature review, categorization of the selected studies, evaluation of the studies, interpretation of the results, and presentation of the review. The guiding question for this research was: "What is known about the use of blogs by nurses as educational technology?"

Blogs and Computer-Assisted Instruction and Education, Nursing, Continuing were the descriptors from the Portal Health Sciences Descriptors (DeCs) databases used to identify all the studies. The electronic databases consulted were: *Cumulative Index to Nursing and Allied Health Literature* (CINAHL), *Índice Bibliográfico Español de Ciencias de la Salud* (IBECS), and *Web of Science*. The Boolean operator *and* was replaced by *or* after the descriptor *blogs* in the *Web of Science* database, for research refinement, using the subject heading *nursing*, which enabled a great number of articles to be retrieved.

The search was carried out in June 2016. Eligible studies included articles published in national and international scientific journals that dealt with the issue, "use of *blogs* by nurses as educational technology"; published in the period between 2006 and 2016, and published in Portuguese, English or Spanish. Publications not available in full text; full text publications but without full access, and studies not answering the research question were not eligible. The following flowchart shows the study search and selection strategy (Figure 1).

Figure 1. Flowchart of the search and selection of the productions strategy that composed the sample of the integrative review.



A data collection form, including title / authors, main objective, methodology, level of evidence, main results and conclusions, was used for the extraction and synthesis of the information from the selected studies. The analysis of the extracted data was carried out in a descriptive way, by means of a thematic content analysis technique. This allowed the evaluation of the level and quality of the available evidence on the subject under study, and additionally, the identification of knowledge gaps for the development of future research.

Concerning the level of evidence, the studies that made up the sample of this review were analyzed based on a six-level classification system, as follows: Level I- studies such as meta-analysis of multiple controlled studies; Level II - individual experimental studies; Level III - quasi-experimental studies, such as non-randomized clinical trial, single group pre and post test, in addition to time series or case-control studies; Level IV - non-experimental studies, such as descriptive, correlational and comparative

research, with qualitative approach and case studies; Level V – data evaluation of programs made through a systematic way, and Level VI – opinions of specialists, experiences, consensus, regulations and legislation.⁽⁷⁾

RESULTS

Of 122 studies initially found, those that directly addressed the use of blogs in Nursing as educational technology were selected. After reading the abstracts and applying the inclusion and exclusion criteria of this study, 8 articles were selected for the analysis (Table 1).

Table 1. Studies included in the integrative review according to study design, data source, country and year of publication. Rio de Janeiro, 2016.

Study / Title	Country	Data Source	Study design	Year
S1 - Mobile learning: a workforce development strategy for nurse supervisors ⁽²⁾	Australia	Study Health Technology Information Journal	Quantitative, Descriptive	2014
S2 - Disseminating best practice through a web log ⁽⁴⁾	England	Nursing Standard	Descriptive	2010
S3 - You can lead a horse to water, but you can't make it blog? ⁽⁸⁾	USA	Online Journal of Nursing	Consideration	2012
S4 - Blogging as a venue for faculty development ⁽⁹⁾	USA	Nursing Education Perspectives	Experience report	2006
S5 - The nursing students' attitude toward using blogs in a nursing clinical practicum in Taiwan: a 3-R framework ⁽¹⁰⁾	China	Nurse Education Today	Quantitative, Exploratory	2012
S6 - Use of a blog in an undergraduate nursing leadership course ⁽¹¹⁾	USA	Nurse Education in Practice	Editorial	2015
S7 - Blogged nursing analysis of the phenomenon and contextualization in the spanish setting ⁽¹²⁾	Spain	Computers Informatics Nursing	Quantitative, Descriptive	2015
S8 - Using social media for continuous professional development ⁽¹³⁾	England	Journal of Advanced Nursing	Editorial	2015

Articles mainly from 2015 (37.5%) were identified, followed by 2012 (25%), and 2006, 2010, and 2014 (12.5%, each year). Journals are all related to the Nursing field. Studies found are all written in English. Regarding the study design, a qualitative approach was predominant (75%), followed by quantitative-qualitative studies (25%).

Difficulty in design and methodological type identification of the selected studies to compose the sample is highlighted. Regarding the strength of evidence, two studies report opinion of specialists and one is an experience report, characterized as level of evidence VI; five are descriptive studies, characterized by level of evidence IV. These results evidence that there is little production on the connection between *blog* and

teaching in Nursing, with low ranking at the research level. Thus, it can be pointed out that the use of this tool as educational technology in the *Nursing* field is a novelty.

After reading, analyzing and synthesizing the main findings of the studies, the themes that emerged were grouped into two categories, as theses: Category 1 - Theoretical interface for the construction and use of social media; Category 2 - Nurses' knowledge and practices in the use of the blog (Table 2).

Table 2. Categories and knowledge synthesis of the selected studies. Rio de Janeiro 2016.

Category/Emphasis	Main Findings	Study
1 - Theoretical interface for the construction and use of social media (Theoretical)	A critical mass of skills and knowledge can be developed on account of <i>blogs</i> . They should be planned to disseminate the best practices in Nursing, with a clear and informative purpose. They may contain articles, book reviews to encourage discussion, <i>links</i> to other <i>blogs</i> or related organizations. The increasing use of mobile devices (<i>smartphones</i> and <i>tablets</i>) may reveal a tendency to use <i>micro-blogging</i> with shorter posts and real-time interaction. Social context can be used for the continuous development of the nursing professional.	S2, S3, S8
2 - Nurses' knowledge and practices in the use of the blog (Practice)	Participation in virtual communities can improve professional practice through reflection and debate. It requires skills in information and communication technologies; then, they must be included in Nursing degrees. A <i>Blog</i> is an easy way to connect professors and students in teaching and learning activities, through critical reflection and dialogue. It is also useful to create non-displacement study groups, saving time in the <i>online</i> environment. It encourages solidarity and strengthens professional ties. Educators use <i>blogs</i> as channels to reflect, share and discuss ideas for educative purposes. Students can use a <i>blog</i> to post their papers, discussing in groups and peer reviewing others' papers. They share successes, challenges and new knowledge.	S1, S4, S5, S6, S7

DISCUSSION

Beyond its definition, a *blog* is much more than just a personal journal published on the internet. It has potential for interactivity, connecting huge numbers of people. Used as a tool for continuing education, it allows disseminating knowledge, stimulating participation and collaboration among professionals.

Recent information technologies applied in education takes advantage of the increasing availability of Internet access —using fiber optics, Wi-Fi and 3G / 4G mobile

technology, allowing a wide use of contents in various places —workplaces and public places such as libraries, parks, and internet cafés.

Providing a distance education program has advantages easily recognized: low costs, widespread distribution, increased accessibility to information, frequent updates of content and personalized instruction in terms of content and learning pace, being these some of the benefits most cited ⁽¹⁴⁾.

There are many advantages in using a *blog* as educational technology. These include development of management, communication abilities, and research skills. It is a method that promotes the organization of discourse, encourages debate and favors the creation of learning communities ⁽¹⁵⁾. It can also be useful for updating information in the clinical context, promoting communication among professionals. Nurses can use this technology to facilitate teaching and learning in different types of healthcare ⁽¹⁶⁾.

With the increase in the use of social networks, there is a greater interaction, or rather it is evident, as some suggest, the use of social networks as a set of "channels of diffusion" by many people. Engelen quoted by Murray ⁽⁸⁾, for example, who invested a lot of energy in using and exploiting social media, suggests that the social environment "is still used primarily as a shipping channel and not as a two-way corridor" by many hospitals in Europe that have already made progress in their use.

On long-term trends, Murray ⁽⁸⁾ discusses that accessing internet by many people in many countries through mobile devices (*smartphones, tablets*) instead of using "conventional" desktops or *laptops* of average size keyboards is on the rise. Hence, it is possible to start seeing a movement of working with smaller texts, which is more convenient for these types of devices ⁽⁸⁾.

Keeping a blog active is essential for a successful *blog site*. Content must be updated daily in order to maintain a *blog*. Bloggers and users of a specific blog are required to post content regularly, and other users might visit it and comment frequently. Once users visit the blog several times and constantly receive answers, the use of that *blog* becomes habitual and the level of involvement of its users grows ⁽¹⁷⁾.

Globalization and information and communication technology (ICT) continue to change the world we live in. This is a right moment for Nursing, when challenging global health issues, international workforce shortages and massive growth of ICTs combine to create a rather unique space for Nursing leadership and intervention. The opportunities offered by ICTs can be maximized by nurses to increase the efficiency, equity and quality of healthcare, while reducing the impact of geographical distances. The practice of computer science is rapidly becoming part of the expected competence of each nurse and, therefore, it is no longer just a responsibility of each nurse, but also *an opportunity for each nurse*. As nurses, one has the opportunity to renew and innovate, to lead evolution in a way that can promote health for all ⁽¹⁸⁾.

Nurses are in a position to direct the development of science in their field, since many aspects of Nursing care are naturally possible to be delivered in a virtual way, especially in the areas of evaluation, teaching, patient, decision supporting and the early identification of problems ⁽¹⁹⁾.

The use of information technology in health grows exponentially, and nurses need to be prepared. Nursing students continue graduating without adequate preparation for

the use of those technologies. Nursing educators need to embrace the extant skills, but also to include activities that will prepare students to use health information technologies, which, in turn, will lead to clinical transformation ⁽²⁰⁾.

In fact, the context of higher education has changed, and those changes will shape the way nursing education is delivered, in order to prepare the next generation of nurses. Nursing, compared to other health professions, is often seen as one of the first to adopt educational innovations ⁽²¹⁾. Preparing teachers and students to properly use technology in their teaching and learning activities is an essential precursor for the use of technology. When planning education programs for nurses, competences in technology and informatics must be taken into account in order to transform Nursing and health care ⁽²²⁾.

CONCLUSION

On account of the information and communication technologies scope, distances and time are much shorter. Nursing needs to seize these new technologies to reach as many professionals and stakeholder groups as possible in health care issues. The use of *blogs* as educational tool can transform learning because it has the potential to manage individual care, inform the population and share knowledge among professionals. Collaboration among professionals and continuing education in Nursing can become more rapid and participatory, generating positive results for the practice of care.

It is necessary for nurses' educators to take measures to adjust the curriculum to the development of competences which enable the use of available technologies and which improve learning.

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