

Educational technologies for teaching nursing history: an integrative review

Tecnologias educacionais para o ensino de história da enfermagem: revisão integrativa
Tecnologías educativas para la enseñanza de la historia de enfermería: revisión integradora

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Abstract

Objective: To analyze the literature in educational technologies for teaching nursing history.

Methods: Integrative review of the literature, with search and selection in CINAHL, MEDLINE via PubMed®, Web of Science, SCOPUS, LILACS, and BDENF via VHL. Seven studies published in Portuguese, English, and Spanish without a time frame were included. We descriptively proceeded with the analysis, and we organized two thematic categories: the digital and non-digital technologies for teaching nursing history.

Results: In the studies, we identified digital technologies, such as websites, virtual learning environments and objects, and non-digital, such as television series, Cordel literature, and printed texts. There was an increasing interest of researchers in the implantation of technologies for teaching nursing history, expressed by the increase in the number of studies in the last ten years.

Conclusion: Digital and non-digital educational technologies contributed to nursing history teaching by being valid, safe, effective, attractive, and motivational for active learning, as well as for the development of the critical and reflective ability in the identity conformation.

Resumo

Objetivo: Analisar na literatura as tecnologias educacionais para o ensino de história da enfermagem.

Métodos: Revisão integrativa, com busca e seleção em: CINAHL, MEDLINE via PubMed®, Web of Science, SCOPUS, LILACS e BDENF, via BVS. Sete estudos publicados em português, inglês ou espanhol e sem recorte temporal foram incluídos. A análise foi procedida de forma descritiva e duas categorias temáticas foram elencadas: as tecnologias digitais e não digitais para o ensino de história da enfermagem.

Resultados: Nos estudos, identificaram-se tecnologias digitais, como sites, objeto e ambiente virtual de aprendizagem e não digitais, como séries de televisão, literatura de cordel e textos impressos. Houve crescente interesse de pesquisadores pela implementação de tecnologias para o ensino e a aprendizagem da história da enfermagem, sendo expresso pelo aumento do número de produções nos últimos 10 anos.

Conclusão: As tecnologias educacionais digitais e não digitais contribuem para o ensino de história da enfermagem, por serem recursos válidos, seguros, efetivos, atrativos e motivacionais para a aprendizagem ativa, assim como para o desenvolvimento da capacidade crítica e reflexiva na conformação identitária.

Resumen

Objetivo: Analizar en la literatura las tecnologías educativas para la enseñanza de historia de la enfermería.

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Educational technology; Digital technology; Education, nursing; History of nursing; Teaching; Nursing

Descriptores

Tecnologia educacional; Tecnología digital; Educação em enfermagem; História da enfermagem; Ensino; Enfermagem

Descripciones

Tecnología educacional; Tecnología digital; Educación en enfermería; Historia de la enfermería; Enseñanza; Enfermería

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Métodos: Revisión integradora, con búsqueda y selección en: *CINAHL*, MEDLINE vía PubMed®, *Web of Science*, SCOPUS, LILACS y BDENF, vía BVS. Se incluyeron siete estudios publicados en portugués, inglés o español y sin recorte temporal. El análisis fue realizado de forma descriptiva y se relacionaron dos categorías temáticas: las tecnologías digitales y las no digitales para la enseñanza de la historia de la enfermería.

Resultados: En los estudios se identificaron tecnologías digitales, como páginas web, objeto y ambiente virtual de aprendizaje y no digitales, como series de televisión, literatura de cordel y textos impresos. Hubo un creciente interés de los investigadores por la implementación de tecnologías para la enseñanza y el aprendizaje de la historia de la enfermería, lo que se expresa por el aumento del número de producciones en los últimos 10 años.

Conclusión: Las tecnologías educativas digitales y no digitales contribuyen para la enseñanza de historia de la enfermería, porque son recursos válidos, seguros, efectivos, atractivos y motivacionales para el aprendizaje activo, así como para el desarrollo de la capacidad crítica y reflexiva en la conformación identitaria.

Introduction

The epistemological support of the being/doing of the nurse and the development of favorable abilities, attitudes, and competencies to the praxis and the identity formation, are reasoned in the knowledge of nursing history, which occurs through the inclusion of it and prioritization in the teaching and training journey of these professionals⁽¹⁾.

Teaching Nursing history is primordial to comprehend the ideas and the obstacles faced in the consolidation and structuration of this profession and to enable the student to the resolution of problems, aiming to understand the past and the possibility of better problematization of the situations of the present⁽²⁾.

Although the relevance concerning this knowledge, the teaching still faces considerable challenges. Thus, the utilization of active methodologies is configured as a relevant tool to be implemented by the teaching staff, dismissing simple memorization of facts and phenomena, to invest in active learning as a higher comprehension of reality, awakening the curiosity and stimulating students to the investigation about the genesis of the profession⁽³⁾.

The active methodologies are educational strategies centered on the student's protagonism, in the effective and reflexive relation, in the entire process of learning mediated by the professor⁽⁴⁾. Hence, the incorporation of technologies in the teaching of nursing history may also benefit better performance in the educational processes once they comprehend, in the majority, dynamic, interactive, and collaborative methods, which demands from the professors the rethinking of the pedagogical practices⁽⁵⁾.

Although the use of technologies is constantly associated with the use of computers, multimedia

resources, learning platforms, software, and apps with the advent of the internet⁽⁶⁾, the definitions are wide, involving the technical and scientific knowledge, as well as its utilization for the creation of tools, processes, and instruments used throughout this knowledge⁽⁷⁾.

In education, technologies are a set of scientific, technical, and practical knowledge that cooperates with the reorganization and expansion of the quality of the teaching processes⁽⁸⁾ constituted by digital and non-digital elements. However, it is necessary to know and apply them, so they become effective instruments in nursing history learning or any other field of knowledge.

Hence, teachers of nursing history must search for strategies to develop with students the desire to know the historicity, to problematize the present, and to envision the future of the profession⁽⁹⁾. That is, propose dynamic resources that approximate the student with historical elements that help them find their paths⁽¹⁾.

In this context, this study justifies itself by the need for a literary review regarding the educational technologies in nursing history teaching, which will allow an analysis to expand the body of knowledge about the object. Besides the possibility to apply them in the in-person and remote modalities and different teaching methods, aiming to overcome the centralization of the teacher and the passive transmission of content that does not favor the conformation of the professional identity by the student. Furthermore, this study integrates a micro project intending to develop an educational app for smartphones about the history of nursing class entities.

Considering the potentialities of the technological resources in education, we intend to analyze in literature the educational technologies for teaching nursing history.

Methods

We carried out an integrative review of literature according to the Whittemore and Knaff⁽¹⁰⁾, in which we structured the research question by the PICo strategy⁽¹¹⁾: (P)-educational technologies, (I)-teaching, (Co)nursing history. Hence, we guided this study with the question: "Which are the educational technologies used for nursing history teaching?" We searched the database: Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medical Literature Analysis and Retrieval System Online (MEDLINE via PubMed), Web of Science, SciVerse Scopus (SCOPUS), Latin-American and Caribbean Literature in Health Sciences (LILACS), and Nursing Database (BDENF), via Virtual Library in Health (BVS), from August 2020 to January 2021. For the conduction of the searches, we selected controlled and non-controlled descriptors after consulting the vocabularies: List of Headings do CINAHL Information Systems, Descriptors in Health Science (*DeCS*), and Medical Subject Headings (MeSH). We carried out a combination with the application of OR and AND boolean operators. Chart 1 presents the search strategy we adopted in CINAHL that maintained the patronization and adequacy for each of the other bases searched.

Chart 1. Search strategy conducted in CINAHL

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((MH "Technology") OR "Technology" OR "Technological System" OR "Technological Systems" OR "Technologies and Software Applications" OR "Technologies" OR "Technology and Software Applications" OR (MH "Educational Technology") OR "Educational Technology" OR "Instructional Technology" OR "Technology, Educational" OR "Technology, Instructional") AND ((MH "Education, Nursing") OR "Education, Nursing" OR "Nursing Education" OR "Educations, Nursing" OR "Nursing Educations" OR ("Nursing" OR "Nursings") AND ((MH "Teaching") OR "Teaching" OR (MH "Teaching Methods") OR "Teaching Methods" OR "Educational Techniques" OR "Educational Techniques" OR "Pedagogy" OR "Technics, Educational" OR "Techniques, Educational" AND ("Nursing" OR "Nursings")) AND ((MH "Education, Nursing") OR "Education, Nursing" OR "Educations, Nursing" OR "Nursing" OR "Nursing Education" OR "Nursing Educations" OR ("Nursing" OR "Nursings")) AND (((MH "Teaching") OR "Teaching" OR (MH "Teaching Methods") OR "Teaching Methods" OR "Educational Techniques" OR "Educational Techniques" OR "Pedagogy" OR "Technics, Educational" OR "Techniques, Educational" AND "Nursing" OR "Nursings")))) AND ((MH "History") OR "History" OR "Aspects, Historical" OR (MH "History of Nursing") OR "History of Nursing" OR "Nursing, History" OR "Historical Aspect" OR "Historical Aspects" OR "Histories" OR "History Nursing" OR "Nursing History")

We included fully published studies in Portuguese, English, or Spanish without a time frame. We excluded editorials, dissertations, thesis, reflections, and literature reviews. Moreover, we excluded duplicated studies, maintaining the regis-

ters in the specific databases for nursing, followed by multidisciplinary. We carried out the access to the databases by the Periodic Portal from CAPES, and we followed the steps: identification, screening, eligibility, and inclusion, carried out by two reviewers independently. For the constitution and organization of the database, just like the exclusion of duplicated registers, we used the references manager EndNote®. The search totalized 645 studies. We excluded 163 studies by duplicity, resulting in 482 studies for reading the titles and abstracts. After the application of the eligibility criteria, we constituted the sample with seven studies. Figure 1 describes the flowchart for identification, screening, and eligibility, to inclusion as recommended in the Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)⁽¹²⁾.

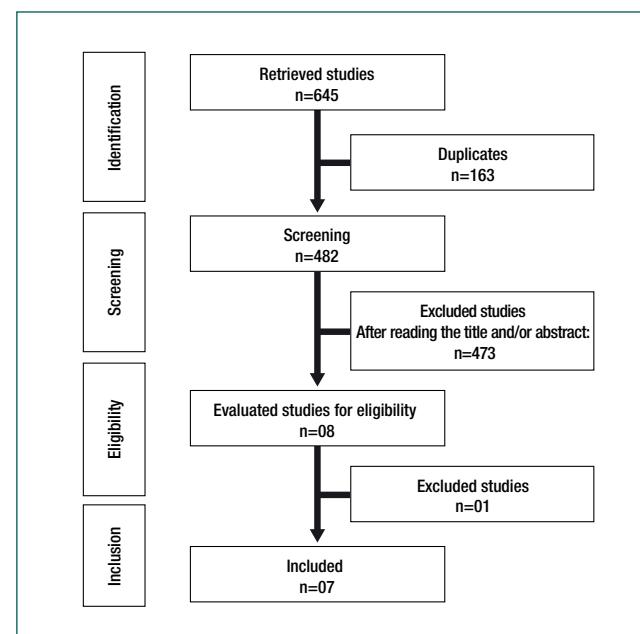


Figure 1. Flowchart of the primary studies included in the integrative review

We used a validated form by the Occupational Health in Nursing Network (RedENSO)⁽¹³⁾ for the data collection. The methodological quality assessments occurred by the identification of the level of evidence (LE) based on the assumptions of Melnyk e Fineout-Overholt⁽¹⁴⁾. We descriptively carried out the analysis, synthesis, and presentation of educational technologies for teaching nursing history. For

this purpose, we constituted a synthesis table with those identified in the articles, which allowed the elaboration of two thematic categories. The categorization emerged from the comprehension that digital technologies have as base the digital language utilizing hypertexts and hypermedia and breaking with the serial and hierarchy structure in the articulation of knowledge, which allows new relations between contents, spaces, time, and different people⁽¹⁵⁾.

Because this is a review, the appreciation by the Research Ethics Committee was not necessary. However, we maintained ethical and legal aspects regarding authorship.

Results

The available evidence about educational technologies for teaching nursing history emerged from the final sample of the seven studies⁽¹⁶⁻²²⁾ presented by the title, year, study type, level of evidence, and educational technology (Chart 2). We verified an

Chart 2. Synthesis of the included studies

Title/Year/Country	Study design/LE	Educational Technology
Reaching Millennials with Nursing History ⁽¹⁶⁾ /2016/USA	Descriptive Experience Report/VI	Website of history of nursing
Illuminating and inspiring: using television historical drama to cultivate contemporary nursing values and critical thinking ⁽¹⁷⁾ /2015/Australia	Case study/VI	Historical television drama series with eight episodes about the nursing during the First World War
Cordel literature: educational technology about History of Nursing in Ceará ⁽¹⁸⁾ /2014/Brazil	Descriptive Experience Report/VI	Cordel literature
Construction of virtual learning objects for teaching the history of nursing ⁽¹⁹⁾ /2014/Brazil	Experience Report/VI	Virtual Learning Objects (VLO)
Building the discipline of nursing history in distance education: experience report ⁽²⁰⁾ /2011/Brazil	Descriptive Experience Report/VI	Virtual learning environment (VLE)
Aptitude for critical reading of theoretical texts about History of Nursing by bachelor nursing students ⁽²¹⁾ /2005/Mexico	Quasi-experiment/V	Experimental Group I - Printed materials, reading guide, individual work, subgroups discussion, and comments confrontation. Control Group - class activity and following of the study program.
Integrating Nursing History Into the Curriculum ⁽²²⁾ /2004/USA	Descriptive with qualitative approach/VI	Videos, photos, slides, newspapers, archives, textbooks, hospital registers, museums, internet, personal diaries, websites, interviews with nurses.

LE – Level of Evidence

increased interest in favorable technologies in the teaching-learning of nursing history expressed by most studies in the last ten years⁽¹⁶⁻²⁰⁾. We identified original studies from Brazil⁽¹⁸⁻²⁰⁾, United States^(16,22), Australia⁽¹⁷⁾, and Mexico⁽¹⁷⁾. Concerning the study design, prevailed the qualitative approach on the experience reports,^(16, 18-20) case study⁽¹⁷⁾, and the descriptive method⁽²²⁾ with the classification of the level of evidence VI. In addition, one study used qualitative approach, one quasi-experimental study with the level of evidence VI⁽²¹⁾.

We organized the evidence into two thematic categories: Digital educational technologies for teaching nursing history and non-digital educational technologies for teaching nursing history.

Discussion

Digital educational technologies for teaching nursing history

We identified in three studies the use of educational technologies: website⁽¹⁶⁾, VLO⁽¹⁹⁾, and VLE⁽²⁰⁾ for teaching nursing history.

We characterize the websites by the access to the internet and a page or set of pages related to each other by an electronic address⁽²³⁾. The VLO is a little reusable technological resource containing information that allows the learning through educational material with didactic content, permeated by interdisciplinarity, and interactivity, besides the complements and exercises.⁽²⁴⁾

The VLE is a multimedia space on the internet in which educational actions take place, being possible the publication, archiving, and distribution of content and activities, as well as interaction with students and the support team⁽²⁵⁾.

These technologies are part of the everyday life of adolescents and youngsters that have them as part of their life and use them to access general information or to comprehend school subjects⁽⁶⁾. Hence, in 2018, 51.4% of students entered higher education, including nurse students, with ages under 24 years old.⁽²⁶⁾ These data demonstrate that these students are, in the majority, adolescents, and youngsters, digital natives, and they access

knowledge through new information and communication technologies⁽²⁷⁾.

Digital technologies reconfigure nursing history teaching, becoming a stimulus for learning. They are innovative and captivate the student's attention besides facilitating in-person and remote teaching^(16,19). In addition, they are a driving force for the continuity of the apprenticeship and attend as a resource for the knowledge construction beyond the classroom^(16, 19-21). Thus, the possibility of utilization of synchronous and/or asynchronous communication transforms the educational relations favoring the interaction and the collaboration of the teaching-learning process of nursing history.

In the current educational perspective, new methods to present nursing history are indispensable because, normally, the historical registers occurred in more traditional formats that may be invisible to this generation of students⁽¹⁶⁾. They aim to break the traditional teaching of transferring, demonstrating, and repeating by boosting the teaching and enabling the utilization of active methods of teaching⁽²⁸⁾. Thus, they are pertinent by instigating changes in the teaching-learning process, contributing to the development of active and critical subjects⁽²⁹⁾.

Hence, the appropriation of digital educational technologies constitutes a challenge to teachers. Regarding the VLE, it includes transitioning to the online media, knowing the hypertext characteristic of this technology, as well as monitoring the interactivity as a possibility of modification of the classical communication process⁽²⁰⁾. Teachers demand knowledge of the strategies, didactic resources, and digital tools to expand the interactions with the students in the in-person and virtual learning environments⁽³⁰⁾.

In the current pandemic context of COVID-19, digital educational technologies are indispensable in all teaching-learning scenarios. Thus, the pandemic accelerated the adoption of these technologies and occasioned the development of apprenticeship environments in a short amount of time, as well as outlined different methods of teaching: mixed, semi-presencial, and hybrid⁽³¹⁾.

We observed, however, the lack of studies that especially approach in the teaching of nursing

history mediated by digital technologies in the COVID-19 context. We reinforce that interactions mediated by digital technologies need to happen actively between nursing teachers and students, which must redefine the respective work processes⁽³²⁾.

Non-digital educational technologies for nursing history teaching

There are successful experiences in studies that utilized a historical TV show⁽¹⁷⁾, Cordel literature⁽¹⁸⁾, and reference texts with reading guides⁽²¹⁾.

The historical television series instigates the problematization to promote critical thinking and the understanding of the profession through the reflection and discussions of how the historical facts translate into the professional practice through the understanding of what happened before⁽¹⁷⁾.

The Cordel literature showed itself as playful technology in the nursing history teaching with good acceptance by the students, highlighting the creativity, originality, and the lightness, besides rescuing the valorization of popular literature⁽¹⁸⁾. The application of these printed materials, combined with a reading guide, the written construction of arguments, and points of view that substantiate the individual work, with the group discussion, promoted the participation and the increase of critical reading ability of historical nursing texts⁽²¹⁾. This critical reading favors the reflections regarding the current scenario of nursing.

These technologies were incorporated in a context of active methodologies, being the students the protagonists of their own learning process resulting from their involvement and motivation. Although the active methodologies are favored by technologies, highlighting the digital, we cannot restrict them to their use. Thus, we believe that non-digital and digital technologies do not exclude each other but are complementary in the teaching-learning process. The choice of determining the type of technology depends on the determined objectives in the educational process, to help this process and not the object, the substance, or the aim⁽¹⁵⁾.

In that sense, the digital and non-digital technologies in the teaching of nursing history present themselves as means to support the confirmation of a solid

professional identity for the future nurse, capable of reproduction in the praxis. Therefore, to respond satisfactorily to the social health needs of the population and the nursing practice as a scientific and professional field. They enable, thus, to understand how nursing deconstructs and constructs its history, breaks old paradigms, and straightens others more coherent with its understanding as an idea, political and social body⁽³³⁾.

The understanding of contemporary nursing requires revisiting the past by the teaching of nursing history, therefore, perceiving the profession through different social, economic, and political contexts. The history cannot be visualized in an isolated and restricted way as a set of narrated events descriptively and chronologically but must be considered in its integral form, correlating with the nursing, and, thus, understood the conformation and identity of the profession.

The professional identity reflects itself in the attitudes and leadership strengths of the nurses and points out the realization of the individual, as well as the social and collective recognition of nursing, which construction happens inside institutions during the socialization process in education and work⁽³⁴⁾. Thus, we need teachers of nursing history to reinforce the use of active methodologies with the adoption of digital and non-digital technologies, such as videos, photos, slides, newspapers, textbooks, hospital registers, museums, the internet, personal diaries, websites, and interviews that help them to instigate the apprenticeship, to value and to make it more significant the nursing history through the graduation and post-graduation curriculum⁽²²⁾.

Formal education increasingly occurs in an amplified learning space that includes the physical space of classrooms and the digital and integrates different technologies. It is the professor's responsibility to balance the individual and collective integration through face-to-face and digital communication⁽³⁵⁾. Consequently, it contributes to the construction of the critical-reflexive consciousness concerning the profession, the development, and social commitment in different spaces of protagonism of the student in the teaching-learning process of nursing history.

This discipline occupies random periods in nursing courses, in little spaces that remain at the

beginning and the end of the contents, understood as noble, such as assistance disciplines that focus on the professional practice to be exercised⁽¹⁾. Thus, the academic overload became a limitation for the higher development of critical reading of texts regarding the history of nursing once students prioritize other curricular disciplines⁽²¹⁾.

To estimate nursing history is to make it visible to those who are part of it, as students or professionals. That said, it is necessary to appreciate nursing history teaching that is taken unnoticed and as if there was no necessity for discussion agenda⁽³³⁾.

As a limitation of this study, we observed a lack of articles concerning educational technologies for teaching nursing history. Additionally, the selected sample presented a low level of evidence, which hampers the establishment of cause and effect relations among the identified technologies. We infer that the new studies about the validation and evaluation of these technologies by the subjects involved in nursing history teaching-learning are necessary.

Conclusion

We demonstrated that digital and non-digital technologies for teaching nursing history constitute interesting and motivating resources. Furthermore, they positively contribute to the active learning and the development of critical ability, which makes the student a protagonist of their own knowledge by promoting his/hers professional identity. Additionally, the usage of these educational technologies has increased in the last years, presenting potentialities for teaching in different contexts, such as the in-person and remote modalities. We also highlight that digital and non-digital technologies cooperate with the teaching of nursing history and are complementary and auxiliary resources in the teaching-learning process and not an end itself.

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