# Nursing education in the military scope: an integrative review

# La enseñanza de enfermería en el ámbito militar: revisión integrativa

**Abstract:** This study aimed to analyze the scientific productions on the process of nursing education in the military scope. This is an integrative literature review study performed between September 1<sup>st</sup> and 2<sup>nd,</sup> 2019, based on an electronic bibliographic survey in all databases from the Virtual Health Library. The thesauri were the following: Military Nursing; Teaching; Military Personnel; Nursing. Thematic categorization was performed for data analysis and interpretation. Four articles were selected and two categories were elaborated: Main forms of nursing education in the military scope and Use of active methodology in military nursing education. The use of traditional teaching techniques in the military scope is emphasized primarily, but the importance of breaking this paradigm with the use of active methodologies is highlighted. The number of studies focused on education in the military scope is small.

**Keywords:** Military Nursing. Military Personnel. Nursing. Teaching.

Resumen: Este estudio tuvo como objetivo analizar las producciones científicas relacionadas con el proceso de enseñar enfermería en el ámbito militar. Se trata de una revisión integrativa de la literatura, realizada entre los días 1 y 2 de septiembre del 2019, con base en una recopilación bibliográfica electrónica en todas las bases de datos contenidas en la Biblioteca Virtual en Salud (BVS). Los tesauros fueron Enfermería Militar (Military Nursing); Enseñanza (Teaching); Militares (Military Personnel); Enfermería (Nursing). Para el análisis e interpretación de los datos, se optó por la categorización temática. Como resultado, se seleccionaron cuatro artículos y se crearon dos categorías: Principales formas de enseñanza de enfermería en el ámbito militar y Uso de metodología activa en la enseñanza de enfermería militar. Así, se pone de manifiesto el uso prioritario de técnicas de enseñanza tradicionales en el ámbito militar y se resalta la importancia de romper este paradigma con el uso de metodologías activas. Se encontraron pocos estudios con foco en la enseñanza en el ámbito militar.

Palabras clave: Enfermería Militar. Militares. Enfermería. Enseñanza.

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### 1 Introduction

Teaching is the process through which learning is facilitated by another person, allowing students to experience situations that may change their concrete lives. This progress is primarily based on three components: someone who teaches and someone who learns, and something the former teaches to the latter. Learning is a manifest reflection of the student's experience in teaching the specific knowledge facilitated by the educator's instruction, and is based on certain tactics proposed by the expected training, contributing to the student's experience, especially of how to be in the world (BORDENAVE, 2014).

The banking model of education is thus criticized, as the educator only deposits the information in the student. Teaching is not just transferring knowledge but creating possibilities for its own production or construction. The educator must reinforce the student's critical capacity and curiosity,. These conditions imply or require the presence of educators and learners, who function as restless creators and instigators, and who are rigorously curious, humble, and persistent (FREIRE, 2018a).

Teaching involves external and internal aspects; external ones regard the teaching contents, whereas internal ones regard the mental and physical conditions of students for the assimilation of contents. Both are mutually related because on the one hand there is the subject to be incorporated by the student, and on the other there is a student to be "prepared" to incorporate the subject (SANTOS et al., 2018).

When it comes to nursing education in the military scope (navy, army, and aeronautics), it is important to differentiate the insertion forms of contents, as this implies the teaching methodology that will be used. Thus, an individual may join the military as a nursing technician or as a nurse and have only military activities/training in the armed forces; or they may join as a sailor and/or soldier and train to become a nursing technician; or they may improve their training with some graduate courses Professional Update Programs of the Military of Health, as offered in the navy, army, and aeronautics branches.

This study analyzes the teaching methodology used in the graduate courses of the navy, army, or aeronautics, or the teaching methodology in the navy specialization and improvement courses.

The focus of this study is on the nursing education in the military scope, either for the specialization/improvement of low-rank military personnel as nursing technicians – as it is done in the navy –, and for graduate education – as in the navy, army, and aeronautics.

Health training is usually based on the traditional methodology, hence the need for changes in military education, with the adoption of alternative pedagogical methods such as the problematization of reality, aiming at the training of active professionals who can intervene in their reality. In addition, the change is paradigmatic, with explicit needs to incorporate new technologies that address the completeness, diversity, globalization, and uncertainty of the daily lives of health professionals (MARQUES, 2018). From this epistemological challenge, the importance of listening, discussing, and focusing on the students with the use of active methodologies is highlighted. When one imagines the military scope, rigidity immediately comes to mind; however, when observing the teaching process in this institution, one can comprehend that it considers the importance of flexibility in such process, given the importance of improving it with new methodologies and techniques – e.g., dynamic and dialectical movement between acting and thinking about actions.

The discussion and the active methodologies meet the propositions highlighted by Paulo Freire (2018a), especially in the context of dialogic teaching. This process helps student learning, as it allows them to construct knowledge based on their concepts and on the intermediation/improvement by the educator.

This study aims to analyze the scientific productions on the nursing education process in the military scope.

#### 2 Methods

This is an integrative literature review, which followed eight stages: (1) elaboration of the study question; (2) literature search; (3) selection of articles; (4) data extraction; (5) methodological quality assessment; (6) data synthesis; (7) assessment of the quality of evidence; and (8) writing and publication of results (GALVÃO; PEREIRA, 2014). All these stages were performed to prepare this study, which pursued the following question: What are the forms of nursing education in the military?

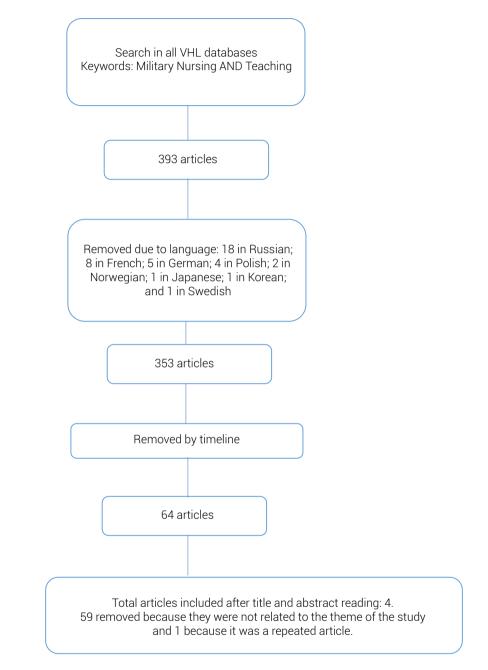
The literature search was performed between September 1<sup>st</sup> and 2<sup>nd,</sup> 2019 from an electronic bibliographic survey in all databases contained in the Virtual Health Library (VHL): LILACS (Latin American and Caribbean Health Sciences Literature), IBECS (Spanish Bibliographic Index on Health Sciences), MEDLINE (International Literature on Health Sciences), Cochrane Library, and SciELO (Scientific Electronic Library Online). Thesauri were determined using DeCS (Health Sciences Descriptors) from the VHL Portal: Military Nursing; Teaching; Military Personnel; Nursing. The "AND" Boolean operator was used.

Inclusion criteria: all types of studies (experimental, quasi-experimental, observational, and review) that dealt with nursing education in the military; in Portuguese, English, and Spanish; and published between 2013 to 2018.

Exclusion criteria: reflection articles; reviews without clear and reproducible methods; studies containing only clinical trial records and/or integrative review summaries; studies with non-human populations.

Figure 1 presents a flowchart detailing the search steps for the study selection.

Figure 1 - Search steps for study selection, Niterói, 2019



Source: elaborated by the authors (2019).

Four studies were included in the analysis. Search details: + id:("biblio-956600" OR "mdl-26050423" OR "mdl-27215868" OR "mdl-27863577" OR "mdl-26485844" OR "mdl-25315568" OR "mdl-24488872" OR "Mdl-24488873" OR "mdl-25073931" OR "mdl-25643502" OR "mdl-24005550") AND (collection:("06-national/BR" OR "05-specialized") OR db:("LILACS" OR "MEDLINE") AND (la:("en" OR "pt" OR "es") AND year\_cluster:("2015" OR "2014" OR "2016" OR "2013" OR "2017")) Details of the second search: teaching AND military AND nursing AND (collection:("06-national/BR" OR "05-specialized") OR db:("LILACS" OR "MEDLINE")) AND (la:("en" OR "pt" OR "es") AND year\_cluster:("2015" OR "2016" OR "2013" OR "2014" OR "2017"))

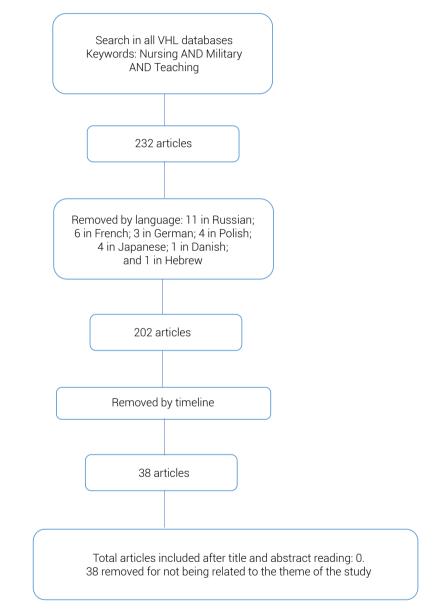


Figure 1 - Search steps for study selection, Niterói, 2019

Source: elaborated by the authors (2019).

After the article selection, an analytical reading was performed highlighting: year of publication, country, journal, objective, method, and authors' recommendations. The presentation of obtained data results and their discussion was made descriptively. Thematic categorization was performed for data analysis and interpretation. Since few studies addressed the topic of nursing education in the military, other studies were used to support the discussion of this article.

# 3 Results

Four articles were selected for discussion, which were published in 2013, 2015, 2016, and 2018. The 92 studies removed at the end of the study mainly addressed nursing actions in military operative activities, being removed due to not addressing education. Regarding the method used, a documentary search was performed in the Brazilian study. The three international studies (two from the United States and one from England) were one phenomenological study, one qualitative descriptive research, and one intervention study.

When considering the focus of our study – education within the military –, we found only one Brazilian study on teaching in the military .

Regarding the international studies, their objective was not teaching itself, but nursing professionals' care actions, evidence-based practice, and understanding of the actions of military nurses in disasters. These data are important because they show that few studies addressed the teaching issue in the military scope, and what is mainly addressed in these studies are operational issues for nurses during practice.

Moreover, three studies showed a qualitative approach and only one had a quantitative approach, showing the need for more quantitative research on military teaching.

Year/Country/Periodical	Objective/Method	Authors' Recommendations	
2015/Brazil/ Revista da Esco- la de Enfermagem da USP (MECONE; FREITAS; BONINI, 2015)	To identify and analyze the discursive statements that describe the formation of HR in nursing, in the 1940s by the Brazilian Red Cross. The approach of the docu- mentary sources was perfor- med with the assumptions of the Historical Method, based on the thought of Michel Foucault.	This study highlights the docility tech- niques, the discipline, and the nursing training in order to produce an adequate study to fulfill the premises of prevailing interests, which served to open the public space for women. They could re-signify the common profession with mastery, given the associative, political, scientific, and legislative achievements obtained by them in the 1940s and thereafter.	
2016/USA/Nursing Clinics of North America (YACKEL et al., 2016)	To understand the essence of the military nurses' experien- ces in disaster response. Phenomenological study.	The study found that while military nurses are expected to be strong and resilient during disaster response, their resilience declines. Nurses commented that emotio- nal aspects can emerge and last longer in disaster situations. This new aspect has led to a greater appreciation of life.	

Table 1 – Studies characterization from 2013 to 2018

continued

Year/Country/Periodical	Objective/Method	Authors' Recommendations	
2018/England/Journal of Perioperative Practice (CARTER; FINNEGAN, 2018)	To explore the concept and developing role of military nursing teachers in impro- ving educational support for military nurses. Qualitative descriptive study.	This study suggests the patient care impro- vement for military nurses through these professionals' mental and occupational resilience development.	
2013/USA/Military Me- dicine	To implement and assess an evidence-based practice (EBP) program at two Army outpatient health centers. Intervention Research.	The authors emphasize that Evidence-Ba- sed Practice is necessary and effective to change the conduct of nursing practice, because it ensures better patient care.	

Table	1 -	Continuation
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The studies mainly addressed the issues regarding resilience aspects of professionals within the practice of nursing and the importance of evidence-based practice in the military scope. Therefore, to meet the objectives of this study. it was necessary to include other studies to corroborate the proposed theme.

#### 4 Discussion

#### 4.1 CATEGORY 1: Main forms of nursing education in the military scope

Nursing has gone through significant developments in scientific knowledge and training, at technological level, and in the philosophy of care. Such development was the result of sociocultural, political, economic, demographic, and epidemiological changes in contemporary societies. The socio-historical-cultural development of society leads to a constant need to recreate its professional action, by achieving a personal and professional heritage based on a separate competence dimension (PEREIRA, 2010). Quality education is crucial to this end, ensuring the development of skills and learning according to Brazil's National Curriculum Guidelines.

The pedagogical model that guided nursing education in the 1940s was marked by military prerogatives. Thus, it is interesting to observe that the pedagogical model of the time emphasized that knowledge was not built from the development of competences, namely teaching. Regardless of the knowledge area, the holder of knowledge (teacher or professor) reproduced the knowledge for the learner (student), thus characterizing a passive learning model.

We must stress that teaching is not merely transferring knowledge; the teaching process also involves the creation of possibilities for its production since teaching does not exist without learning and vice versa (FREIRE, 2018a).

The banking model of education is thus criticized because the educator only deposits the information in the student. Teaching is not just transferring knowledge but creating possibilities for its own production. The educator must reinforce the student's critical capacity and curiosity. And these conditions imply or require the presence of educators and learners, creators and instigators, who must be restless and rigorously curious, humble, and persistent (FREIRE, 2018a).

Thus, regarding the epistemological challenge, the authors understand the importance of listening and discussing students by using active methodologies. When one imagines military environments, rigidity comes to mind; however, teaching within military institutions recognizes the importance of flexibility in this process, given the importance of improving it with new methodologies and techniques, such as the dynamic and dialectical movement between acting and thinking about actions.

The discussion and the active methodologies meet the propositions highlighted by Paulo Freire (2018b), especially in the dialogical teaching context. This process helps student learning, as it builds their knowledge based on their concepts and the intermediation/improvement by the educator.

In the military scope, training courses have as their principles hierarchy, discipline, traditionalism, and conservatism, regardless if nursing or other careers (ROCHA, 2015), so the teaching process has been guided by lectures, internships, and tests, complicating the possible use of active methodologies. However, considering the importance of the development of ethical, technical, and scientific competences of nursing professionals, it is important to break this paradigm, therefore creating a professional trained with quality, who develops the necessary competences to ensure excellent patient care, especially when the issues involve military actions requiring professional resilience (RIVERS, 2016).

The assimilation of content taught is most effective when it is established that no individual should be treated as an empty container, and prior knowledge should be respected and explored. Thus, the single most important factor influencing learning is what the learner already knows. The idea of a subsumption element may be interesting if the student is considered motivated to seek information. Learning should be more stimulating, leading the student to a state of motivation. Thus, when the educator shows the learner some triggering elements that communicate with the student's subsumption elements from the cognitive process, the students can create important connections that may fill their knowledge gaps. Thus, the curriculum contents must communicate with the student's reality. Furthermore, a stimulating learning environment can add value to the educational practices. It is in this context the active methodologies are justified, with the added benefit of favoring the student's autonomy (FARIAS; MARTIN; CRISTO, 2015).

#### 4.2 CATEGORY 2: Use of active methodology in military nursing education

Among the elements that constitute the active methodologies, two actors should be conceptually considered: the teacher/professor, who no longer has the function of articulating or teaching, but now has the task of facilitating the knowledge acquisition process; and the learner, who receives denominations that refer to the dynamic context, such as student or pupil. All this to highlight the active, dynamic, and constructive environment that can positively influence the educators' and learners' perception. Some active methodologies require investment and radical curriculum reform, representing a difficulty in applying them (FARIAS; MARTIN; CRISTO, 2015).

In the military scope, no studies that used active methodologies in the teaching process were found. Thus, as a possibility of change, the use of active methodologies is highlighted in the military scope, based on the many education active methods, emphasizing the actions (COSTA et al., 2011):

- Constructivists based on meaningful learning;
- Collaborative favoring the construction of group knowledge;
- Interdisciplinary providing integrated activities to other disciplines;
- Contextualized allowing the student to understand the application of this knowledge in reality;
- Reflective strengthening the ethics principles and moral values;
- Critical encouraging the student to seek deepening in order to understand the limitations of the information that come to them;
- Investigative arousing curiosity and autonomy, allowing the student the opportunity to learn how to learn;
- Humanists concerned and integrated into the social context;
- Motivating working and valuing the emotion;
- Challenging encouraging the student to search for solutions.

Thus, it is noteworthy that the use of active methodologies can lead the learner to this new context, in which education is shaped without being plastered. The freedom supported by the educators of these models – which are feared by those who apply traditional models, as in the case of military personnel – may be the solution to develop the student's autonomy and train a creative, reflective, and independent professional, essential characteristics for the training of nursing professionals (FARIAS; MARTIN; CRISTO, 2015).

One of the limitations of this study is that no studies addressing the use of active methodologies in nursing education in the military scope were found, highlighting the knowledge gap in military education, which remains traditional and conservative.

Contributions to nursing and health include the synthesis of articles on military nursing education and the importance of the development of teaching practices with the use of active methodologies in the military scope, since there are no studies addressing this issue. Regarding the effectiveness of the active methodologies in teaching, it is important to encourage the use of these practices, especially in the training of military nurses. This ensures a qualified professional, who is ready for the necessary critical-reflective analyses for nursing practices.

# 5 Conclusion

By analyzing academic productions on education in the military scope, this study achieved its purpose, understanding how this process happens, as well as determining there is little evidence about this theme. Thus, this study may promote the production of new studies, which may highlight the actions and the use of active military methodologies to improve the teaching-learning process in this environment.

It is highlighted that military principles should always be followed, as they guarantee order and discipline in the country. But when teaching is analyzed, the traditionalism paradigm must be broken, promoting changes to stimulate students and ensure a more effective training. When the student's prior knowledge and considered, the process of meaningful learning is facilitated and ensured.

# References

BORDENAVE, J. D. A pedagogia da problematização na formação de profissionais de saúde. Porto Alegre, 2014. Disponível em: http://bit.ly/2YyVTyE. Acesso em: 25 ago. 2019.

CARTER, M. C.; FINNEGAN, A. P. Nurse education in the British armed forces. Journal of Perioperative Practice, Thousand Oaks, v. 28, n. 11, p. 304-308, 2018.

COSTA, E. M. M. B. C. Avaliação da aprendizagem: da teoria à prática. *In*: CECY, C.; OLIVEIRA, G. A.; COSTA, E. M. M. B. C. (org.). **Melhoria da qualidade da educação farmacêutica**. Brasília, DF: Associação Brasileira de Ensino Farmacêutico e Bioquímico, 2011. p. 111-28.

FARIAS, P. A. M.; MARTIN, A. L. A. R.; CRISTO, C. S. Aprendizagem ativa na educação em saúde: percurso histórico e aplicações. **Revista Brasileira de Educação Médica**, São Paulo, v. 39, n. 1, p. 143-158, 2015.

FREIRE, P. **Pedagogia da autonomia**: saberes necessários à prática educativa. 56. ed. Rio de Janeiro; São Paulo: Paz e Terra, 2018a.

FREIRE, P. Pedagogia do oprimido. 66. ed. Rio de Janeiro; São Paulo: Paz e Terra, 2018b.

GALVÃO, T. F.; PEREIRA, M. G. Revisões sistemáticas da literatura: passos para sua elaboração. **Epidemiologia e Serviços de Saúde**, Brasília, DF, v. 23, n. 1, p. 183-184, 2014.

MARQUES, L. M. N. S. R. As metodologias ativas como estratégias para desenvolver a educação em valores na graduação em enfermagem. **Escola Anna Nery**, Rio de Janeiro, v. 22, n. 3, e20180023, 2018.

MECONE, M. C. C.; FREITAS, G. F.; BONINI, B. B. Formação em enfermagem na Cruz Vermelha Brasileira na década de 1940: uma abordagem foucaultiana. **Revista da Escola de Enfermagem da USP**, São Paulo, v. 49, n. esp. 2, p. 60-67, 2015.

PEREIRA, C. C. Formação complementar em saúde militar para enfermeiros militares na resposta à vertente operacional. 2010. Trabalho de Investigação Individual (Curso de Promoção a Oficial Superior da Força Aérea) – Instituto de Estudos Superiores Militares, Lisboa, 2010.

RIVERS, F. M. US Military nurses serving within the chaos of disaster. Nursing Clinics of North America, Philadelphia, v. 51, n. 4, p. 613-623, 2016.

ROCHA, L. O ensino da disciplina de Sociologia no Colégio Militar de Santa Maria-RS. 2015. Trabalho de Conclusão de Curso (Licenciatura em Ciências Sociais) – Universidade Federal de Santa Maria, Santa Maria, 2015.

SANTOS, J. L. M. *et al.* Estratégias didáticas no processo de ensino-aprendizagem de gestão em enfermagem. **Texto & Contexto Enfermagem**, Florianópolis, v. 27, n. 2, e1980016, 2018.

YACKEL, E. E. *et al.* Improving the adoption of evidence-based practice among nurses in Army outpatient medical treatment facilities. **Military Medicine**, Oxford, v. 178, n. 9 p. 1002-1009, 2013.