

## **Aplicabilidade das metodologias ativas de ensino na formação do enfermeiro: revisão sistemática da literatura**

### **Applicability of active teaching methodologies in nursing education: a systematic literature review**

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#### **RESUMO**

As metodologias ativas são consideradas estratégias de inovação da educação de nível superior e emergiram devido a necessidade de um espectro de profissionais com senso-crítico. Assim, é de caráter fundamental analisar a influência desse método de ensino para o exercício profissional do enfermeiro, tal como seus pontos de avanços e deficiências. Realizou-se uma revisão sistemática da literatura sobre a aplicabilidade das metodologias ativas de ensino na formação do enfermeiro. Dos 46 estudos encontrados, 10 atenderam aos critérios de inclusão. Foram utilizadas as categorias de perguntas e as respectivas respostas sobre as percepções dos discentes e docentes de enfermagem, além da análise de instrumentos de avaliação das metodologias ativas. Os estudos evidenciaram que as metodologias proporcionam características satisfatórias à formação do enfermeiro, como a análise crítica, o aprofundamento de conhecimento da área e o desenvolvimento da autonomia. Entretanto, também apresentam dificuldades relacionadas às adequações curriculares e a adaptação dos docentes e discentes envolvidos. Por ser um método de ensino recente, é imprescindível o desenvolvimento de estudos que garantam a maturidade de suas ideologias e ampliação de sua implementação, proporcionando uma formação acadêmica de qualidade e com melhorias significativas para a saúde.

**Palavras-chave:** Educação superior, Educação em Enfermagem, Enfermagem, Metodologia.

## **ABSTRACT**

Active methodologies are considered innovative strategies of higher education, and emerged due to the need for a spectrum of professionals with critical sense. Thus, it is fundamental to analyze the influence of this teaching method for nurses' work, as well as its points of progress and deficiencies. A systematic literature review on the applicability of active teaching methodologies in nursing education was performed. Of the 46 studies found, 10 met the inclusion criteria. The study used the categories of questions and their answers about the perceptions of nursing students and professors, in addition to the analysis of instruments of evaluation of active methodologies. The studies showed that the methodologies provide satisfactory characteristics to nurses' education, such as critical analysis, the deepening of knowledge of the area and the development of autonomy. However, they also have difficulties related to the curricular adaptations and the adaptation of professors and students involved. Since it is a recent teaching method, it is essential to develop studies that guarantee the maturity of its ideologies and expansion of its implementation, providing an academic quality and with significant improvements to the health.

**Keywords:** Higher Education, Nursing Education, Nursing, Methodology.

## **1 INTRODUCTION**

Over the years, due to changes in health care models in Brazil and in the world, there arose need for a spectrum of professionals with critical sense (Fabbro et al., 2018) and with a vast knowledge and technical ability, but able to fit into different realities with effectiveness, to meet people's demands (Pascon et al., 2018). Therefore, there emerged a criticism of traditional teaching methods that no longer match the current social situation (Freitas et al., 2015).

In this context, the National Curricular Guidelines of the Nursing undergraduate course, instituted by Resolution CNE/CES n. 3 of 7 November 2001, seek changes regarding the teaching-learning process of students (Brazil, 2001). In this way, technological teaching innovations emerged, with increasingly innovative and challenging models of higher education (Gvozd et al., 2017).

In this context, the active teaching-learning methodologies (ATLM) stand out, which aim at the construction of an education geared to: dialog, participation, autonomy, ability to lead and work in a team, critical and reflective training, and questioning of the realities encountered (Carácio et al., 2014). They are methodologies in which the student becomes the center of his/her own search for knowledge, whereas the professor assumes a role of facilitator and mentor in this process (Seixas et al., 2017).

The ATLMs, in the field of health professional training, base on the problematization pedagogy and on the problem-based learning (Marin et al., 2010). Both use problem situations as an opportunity to acquire knowledge and skills. These teaching methods enable a rapprochement between the student and community knowledge about the actual availability of resources, or lack of these, to perform his/her assistance, as well as indirectly promote social political growth (Pascon et al., 2018).

However, the aforementioned methodology faces problems in its implementation, from structural issues, such as the organization of curricula and differentiated physical environments, to ideological issues (Seixas et al., 2017). For professors, they might need to go through a process of decentralization of knowledge to become facilitators (Winters et al., 2017). The learners, on the other hand, must leave the passivity of attending classes and having to perform mental operations, becoming responsible for their knowledge (Mesquita et al., 2016).

Therefore, it is essential to evaluate the insertion and applicability of the teaching-learning process, especially in the nursing field. Accordingly, there is need to assess the influence of this teaching method on the professional exercise, such as its points of progress and deficiencies, in order to allow for improvements.

## 2 METHODOLOGY

This is a study developed through bibliographic research. For its development, the Portal of the Virtual Health Library (VHL) was used, in which the following databases were consulted: Nursing Database (BDEnf) and Latin American and Caribbean Health Sciences Literature (LiLACS).

The following descriptors were used "Active methodology" and "Nursing", according to the Health Sciences Descriptors (DeCS/BIREME), for the search for articles, which was held from January to February 2019, restricting to studies published in the period from 2014 to 2018.

The inclusion criteria established were:

- Full texts of the studies;
- Articles available in Portuguese;
- Descriptive, exploratory studies and experience reports;
- Researches and articles published from 2014 to 2018.

Repeated articles and with samples different from the studied subject, such as studies that did not consider nursing higher education institutions, were excluded.

The studies were analyzed by means of a meticulous and concise reading. The analysis used the categories of questions and their answers about the perceptions of nursing students and professors, in addition to the analysis of data collection instruments of active methodologies highlighted in the frame below.

### 3 RESULTS

The search returned 227 articles related to the descriptor active methodologies, but, when associated with the nursing descriptor, 96 articles emerged. After filtering studies only for the period of publication, 91 articles appeared; when associated with the LiLACS and BDEnf databases, 54 articles emerged, of which, when also considering the Portuguese language, 46 articles remained. All 46 articles were read, of which (Figure 1):

- 5 had no full text available, only the abstract;
- 4 were only in English;
- 12 were repeated on different databases;
- 12 differed from the sample considered for the study;
- 3 were reviews;
- 1 was a course completion work

*PHASE I: Definition of the databases*

Databases:  
Lilacs/ BDEnf

*PHASE 2: Definition of the Descriptors*

*PHASE*

“Active methodology”  
(n= 227)

“Active methodology” and  
“nursing”  
(n= 96)

*PHASE 4: Reading of full texts*

46 studies were analyzed

Excluded articles:

- English (n=4)
- Without full text available (n= 5)
- Duplicate (n= 12)
- Different sample (n=12)
- Type of study (n=4)

9 Articles eligible according to  
inclusion criteria

9 Articles included in the Systematic  
Review

Figure 1: Scheme representing the procedure of selection of articles for systematic analysis.

Thus, of the 46 studies analyzed, 37 studies were excluded and the 9 remaining were considered eligible according to the inclusion criteria. They were fully and thoroughly read, considering them in contemplative character of the systematic review (Frame 1).

Frame 1: Synthesis of the articles found on the databases from 2014 to 2018

Author	Method	Data collection instrument	Main results
Carácio, Flávia et al., 2014	Exploratory research with qualitative approach	Semi-structured interview	<i>Professors:</i> Early contact with the real scenario enables the student to assume responsibility and reflect on the real situations, relating them to the sociodemographic, spiritual and psychological context of each individual and favoring the formation of professional identity. The disadvantage is that it is not yet recognized by the professors themselves.
Fabbro, Márcia et al., 2018	Descriptive research, with cross-sectional design	Questionnaire	<i>Students:</i> Challenge for both student and professor. Insecurity in early experiences, difficulty adapting initially. Development of autonomy in the pursuit of knowledge, criticality, integrated reasoning. Theoretical and practical articulation, observation of the reality best provided by the professor, expanded view of the nurse's role, acquisition of communication skills. Improvements in the relations between professors and students. The dynamics of how the methodologies are applied does not favor everyone in the discussion and interferes with the clarification time of the content.
Pascon, Daniela et al., 2018	Descriptive study with quantitative approach	Questionnaire, Instrument: Progression Proof (PP) and other structured questions	<i>Students:</i> Possibility of evaluating the method, the development of the students, the acquired knowledge and its contribution to the reflection of learning and teaching behaviors. Teaching is not restricted to the memorization of contents. The methodologies provide students with contact with the community and the world outside the classroom, access to community resources, as well as intrinsically promoting citizenship and the political and social exercise.
Brito, Laís et al., 2017	Experience report	Activities developed in classes, workshops and meetings	<i>Students:</i> Development of critical-reflexive sense for training, autonomy and responsibility in the construction of knowledge and learning. Expansion and development of skills, such as public speaking, creativity. Professor-student relationship. Approach to a real scenario. The teaching-learning of the approached content was assimilated with better systematization.
Winters et al., 2017	Qualitative, descriptive and exploratory study	Individual interviews guided by a semi-structured guide	<i>Students:</i> consider the relationship between students and professors satisfactory, perception of freedom in it. Role of the professors is determinant in learning and contributes to the development of students as protagonists of their knowledge. Articulation theory and practice. Reflection on social reality. Encouraging reflection on the actions developed. The dynamics of methodologies favor teaching through small groups, and thus provide greater interaction. Some students prefer an articulation of methodologies with lectures, the traditional method.

Gvozđ et al., 2017	Experience report: descriptive study	Group dynamics	<i>Students:</i> The use of methodologies in the learning process of postgraduate students favors the exercise of the action-reflection-action dialectic, always taking as its starting point the social reality and the acquisition of a more dynamic knowledge. Possibility of interaction between theory and practical experience. Contribution to motivation and changes in professional attitude.
Mesquita et al., 2016	Field study of the exploratory and descriptive type, with qualitative approach	Semi-structured interview	<i>Professors:</i> reality-based knowledge acquisition. The difficulties listed were: curricular problems; resistance of professors to implement them; and difficulty to understand their applicability in teaching practice.
Braccialli et al., 2015	Descriptive research of qualitative nature	Consensus conference	<i>Professors:</i> elaboration of indicators enables the curricular evaluation of students of active methodologies and aims to improve the process of nursing education. The indicators point to knowledge such as: ethics / bioethics, reception, autonomy, bonding, communication, biosafety measures, group process, professional-patient relationship, public health policies, health and disease process, among others.
Melo et al., 2015	Experience report	Developed dialog	<i>Students:</i> active methodologies are applied in isolation to teaching and care subjects or activities. They value the previous knowledge that everyone has about a certain subject. The construction of the concept map contributes to the development of critical thinking, the autonomy to develop the concepts, the mutual help, teamwork. In addition to increasing its use in other subjects Students have acquired a change of thinking about the use of active methodologies away from the traditional idea of memorization of contents.

Source: The author

#### 4 DISCUSSION

Evaluating the nine articles present in the table above showed that the teaching-learning process based on active methodologies, although endowed with satisfactory characteristics to the nurse's education, presents difficulties for the adaptation of the professors and students involved.

According to Quadros and Colomé (2016), when seeking the knowledge, one must understand that this is a finite resource, and, when it comes to the teaching of nursing, this cannot be seen as a result of standardized actions, but as the exchange of scientific

and popular knowledge. In this way, there emerges a need for training of professionals endowed with criticality, committed to citizenship and social transformation.

The desire for change, according to Guimarães and Silva (2015), is based on modifications of values that contemporary society has passed. Therefore, the traditional way of teaching, which does not meet students' expectations, cannot be sustained, once the studies bring the demands for improvements in the teaching-learning process on the part of undergraduates.

Among the perceptions of students about the contributions of the methodologies, the acquisition of skills and abilities inherent to nursing professional practice stood out in all the analyzed articles, allowing mentioning the responsibility, the interpersonal interaction, critical analysis, the deepening of knowledge of the area, the development of autonomy, among others.

Nonetheless, Carácio et al. (2014) state, according to students' perceptions, as difficulty in this process of teaching, the lack of recognition of some professors, which directly influences the theoretical development and practical learning. Still according to Fabbro et al. (2018), as problems highlighted by students, there is the insecurity in first experiences, mainly due to the difficulty breaking with aspects inherent to the traditional model of teaching, thus resulting in a delay in adaptation. Thus, this problem can be influencing the issue addressed by Winters et al. (2017) regarding the preference of some students for an articulation of methodologies with lectures, of the traditional method. However, contrasting the aforementioned issue, according to Melo et al. (2015), students acquired change of thinking on the use of active methodologies, moving away from the traditional idea of memorization of contents.

Regarding professors' point of view, according to Mesquita et al. (2016), the implications highlighted regarding the application of the methodologies were the curricular issues related to the adequacy of the curricular component itself to the dynamics of this teaching model. Furthermore, professors' resistance appeared as an obstacle, once they had a traditional training in undergraduate and, thus, there was no contact of these professionals with such teaching process. Another point highlighted was the difficulty to understand the insertion of methodologies in the teaching practice, mainly due to lack of supply of skills and educational meetings about the methodologies.

Most studies evaluated (88.88%) defined the active methodologies as a teaching-learning process that provides early and direct contact with reality, bringing real



experiences still in graduation and preparing the nursing students for future situations inherent to their professional practice.

On the other hand, two of the studies mentioned the professor as responsible for selecting contents articulated to reality and for providing the best experiences in real world scenario, since the student will be able to relate theoretical knowledge with practice as best as possible from them (Fabbro et al., 2018; Mesquita et al., 2016). Hermida et al. (2015) also stress that the role of the professor in active methodologies is to offer opportunities to allow for transformations and awakening potentialities toward the re-intervention in reality.

Some studies (33.33% of the analyzed articles) considered the narrowing of the student-professor relationship a result of the active methodologies. According to Winters et al. (2017), students consider that professors have greater concern with active learning, with focus on the development and motivation of the learner. Moreover, they emphasize that the educational role played by professors exerts significant influence in the teaching-learning process.

Only one of the studies analyzed discusses the relevance of the construction of indicators that evaluate the curricula with active methodologies because they are significant for the knowledge of fundamental understandings for the nurses' training and a way of monitoring this teaching process (Braccialli et al., 2015).

Only one of the studies considers that the active methodologies are applied separately in different subjects or teaching and assistance activities and not fully in the curriculum. Furthermore, this same study brought the adoption of a feature used in active methodologies, which is the concept map, assessing its contributions, as well as the expansion of its use in other subjects that do not adopt the model of active methodologies, properly mentioned by the students (Melo et al., 2015)

Concerning the dynamics of implementation of active methodologies, considering their components, resources, organizational aspects, only three studies (33.33% of the analyzed articles) discussed this issue. For Fabbro et al. (2018), discussions are not conducive to all participating students and interfere in time for clarification of the content. For Winters et al. (2017), the dynamics of the methodologies favors the teaching through small groups, and provides greater interaction, since the number of students in the classroom is reduced. For Melo et al. (2015), the dynamics of active methodologies value the prior knowledge that everyone has about a particular subject

Weber (2018) showed in a literature review that there are 23 types of active methodologies, such as the Problem-Based Learning (PBL/PBL), Problematization, Portfolio, Clinical Experience Report, Reflective Groups, Interdisciplinary Groups, among others. However, none of the studies present in Table 1 specify which types of active methodologies were applied at the nursing education institutions. Nevertheless, this is a factor of knowledge necessary and important for establishing comparison of the adoption of each type in different educational institutions, in order to provide greater understanding of the dynamics of the teaching-learning process inherent to each type of active methodology, ensuring greater contributions to the nurse's education and minimizing the difficulties and weaknesses.

## **5 CONCLUSION**

The active methodologies constitute an important tool for teaching-learning process, since they provide the development of skills such as leadership, self-reflection about the problems, as well as greater problem solving of the addressed issue. Such characteristics are essential for the professional training of nurses, because they place the individual as a subject of his/her own learning process.

In this context, the present study shows that the active methodologies are innovative, presenting a series of positive aspects, but there are still difficulties in its form of approach, which requires discussion in relation to the theme.

In this way, by being a recent teaching method, it is essential to develop studies that guarantee the maturity of its ideologies and expansion of its implementation.

There should be the standardization of studies on certain topic, because it will allow for the knowledge of the greatest results, providing an academic education with quality and significant improvements to the health.

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