STUDENTS’ PERCEPTION OF NURSES’ ROLE IN PRIMARY HEALTH CARE: INTEGRATIVE REVIEW

Percepción de estudiantes sobre el papel de las enfermeras en la atención primaria de salud: revisión integrativa

PERCEPÇÃO DE ESTUDANTES SOBRE A ATUAÇÃO DO(A) ENFERMEIRO(A) NA ATENÇÃO PRIMÁRIA À SAÚDE: REVISÃO INTEGRATIVA

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Objective: to analyze national and international scientific evidence that addresses the perception of nursing students of nurses’ role in Primary Health Care. Method: this is an integrative review using the Virtual Health Library database and analysis performed by Classical Textual Statistics and Descending Hierarchical Classification from the conclusions or final thoughts, using the IRAMUTEQ® Software. Results: Of the 83 articles found, five were selected, and the analysis resulted in three classes: Scarcity of nurses to work in Primary Health Care; University education linked to Primary Health Care; and Students’ perception about the nursing profession. Conclusion: the process of nursing knowledge education and/or production still links the profession to subjective characteristics, pointing to the need to advance towards evidence-based nursing. Furthermore, the research revealed scarcity of primary studies addressing the theme of this production.


Objetivo: analisar as evidências científicas nacionais e internacionais que abordam a percepção de estudantes de enfermagem sobre a atuação do(a) enfermeiro(a) na Atenção Primária à Saúde. Método: trata-se de revisão integrativa utilizando a base de dados da Biblioteca Virtual de Saúde e análise realizada por Estatística Textual Clássica e Classificação Hierárquica Descendente das conclusões ou considerações finais, utilizando o software IRAMUTEQ®. Resultados: foram selecionados 5 artigos dos 83 encontrados, e a análise resultou em três classes: Escassez de enfermeiros(as) para atuarem na Atenção Primária à Saúde; Formação universitária vinculada à Atenção Primária à Saúde; e Percepção dos estudantes sobre a profissão de enfermagem. Conclusão: o processo de formação e/ou produção do conhecimento em enfermagem ainda vincula a profissão a características subjetivas, apontando para a necessidade de avançarmos na direção de uma enfermagem pautada em evidências. Observou-se ainda a escassez de estudos primários abordando a temática dessa produção.


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Objetivo: analizar evidencia científica nacional e internacional que aborde la percepción de los estudiantes de enfermería sobre el papel de las enfermeras en la Atención Primaria de Salud. Método: se trata de una revisión integrativa utilizando la base de datos de la Biblioteca de Salud Virtual y el análisis realizado por Estadísticas Textuales Clásicas y Clasificación Jerárquica Descendente de las conclusiones o consideraciones finales, utilizando el software IRAMUTEQ®. Resultados: se seleccionaron 5 artículos de los 83 encontrados, y el análisis resultó en tres clases: Escasez de enfermeras para trabajar en la Atención Primaria de Salud; Educación universitaria vinculada a la Atención Primaria de Salud; y Percepción de los estudiantes sobre la profesión de enfermería. Conclusión: el proceso de educación y/o producción del conocimiento de enfermería sigue vinculando la profesión a las características subjetivas, señalando la necesidad de avanzar hacia la enfermería basada en la evidencia. También se observó la escasez de estudios primarios que aborden el tema de esta producción.


Introduction

The nurses, as well as other health professionals, have a work process to be developed in their professional practice. This concerns the way they perform, in an articulated way, the assistance and management actions, through power relations, political, technical and philosophical knowledge. Their work process responds to several factors, such as the physiological needs of human beings, demands for the coordination of the nursing work process and the organization of the health work process inscribed in a given historical and social time. All this composes the performance of these professionals in the different areas of health care, such as: home care, hospital sector, Primary Health Care (PHC), among others.

PHC is the desirable gateway to the health system and corresponds to a set of individual, collective and family actions, which involve promotion, prevention, diagnosis, treatment, rehabilitation, harm reduction, palliative care and health surveillance. It must be developed by a multidisciplinary team, and one of the professionals is the nurse.

Brazil has adopted the Family Health Strategy (FHS) as a model for developing PHC in the country and, in 2018, the Pan American Health Organization/World Health Organization (PAHO/WHO) addressed the expansion of the nurses' role in this care instance, highlighting their functions when presenting the nurse of advanced practice. This nurse differs in the degree of autonomy in decision-making, diagnosis and treatment of diseases that affect users of health services, providing with greater resolution in the population's health care.

There is, internationally, a constant reinforcement of health policies and actions directed to the care developed by nurses of advanced practice in PHC, because they provide a closer alignment to the needs of the population, the high satisfaction rate of users and the optimization of cost-effectiveness. In this sense, universities are also responsible for guaranteeing the quality of care provided in this health care instance, through professional training articulated to reality.

Concerning nursing students, their conceptions of the nurses' work are changing with the progress of the training process and, above all, with their insertion in practice scenarios. This fact directly interferes with the satisfaction presented by them with the course, being a relevant factor in reducing the stress generated by their own academic education.

Thus, we believe that looking at the nursing students' perception of the work of nurses in the FHS can contribute directly to the expansion of the professional training process of these students. In addition, clues will be provided to strengthen the university training process towards this professional’s performance in this health care instance.

In view of this problem, the development of this integrative review is justified, whose
objective was to analyze the national and international scientific evidence that addresses the nursing students’ perception of the nurses’ role in Primary Health Care.

**Method**

This is an integrative literature review using the Population, Intervention, Comparison, Outcome (PICO) strategy to elaborate the research guiding question. Thus, we defined for this study: P – nursing students, I – nursing students’ perception of the nurses’ role in PHC, C – not applied in this study because it did not presume a comparative process, O – the nurse’s performance in PHC. Thus, the following research question was reached: What is the scientific evidence addressing the perception of nursing students about the role of nurses in PHC?

Complete scientific articles available online and published in the languages Portuguese, English and Spanish were adopted as inclusion criteria. Dissertations, theses, gray literature and research projects still under development were excluded from this study.

As a search strategy, the Virtual Health Library (VHL) was used with all its databases. The controlled descriptor “nursing student” was used in association with the descriptor “primary health care” in the languages Portuguese, English and Spanish, combined through the Boolean operator AND. The search was conducted in February 2020.

The studies found were carefully evaluated, selecting those that met the inclusion criteria and had a relationship with the issue established in this integrative review, and excluding the others.

Taking into account that integrative reviews require standardized and systematic methods to ensure the rigor required and the legitimacy of the scientific evidence obtained, an instrument was developed to assist in the identification and analysis of the data of the included studies, composed of the following items: Year of publication; Research development site; Title of the article; Main objective of the study; Methodological approach used; and Final Conclusions or Thoughts pointed out in the researches.

Following the Prisma process for the selection of productions, 83 files were found, excluding four studies because they were in duplicate. Therefore, 79 files were selected for the application of inclusion and exclusion criteria by reading the titles and/or abstracts, resulting in six articles, which were selected for full reading because they met the question of this research. After reading and using this auxiliary instrument, an article was excluded because it consisted of a publication referring to a research project still under development, without results and discussion of the data. Thus, five scientific articles were included in this integrative review (Flowchart 1).
Data analysis occurred in two ways: extraction of the information contained in the productions in order to characterize the sample of articles included in the research; organization of a textual corpus through the combination of the texts presented in the conclusions or final thoughts of the articles, following with its processing and analysis through the software *Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires* (IRAMUTEQ®).

IRAMUTEQ® performs a statistical analysis by grouping words with semantic similarity present in the textual corpus. This corpus is divided into text segments (TS) by the software, which consist of small textual fragments that preserve the semantic relationship with each other. 

Thus, the conclusions or final thoughts of the selected articles were translated into the Portuguese (with the exception of articles already written in this language) and organized in order to compose the textual corpus, prepared and revised in order to eliminate misunderstandings of typing and standardization of acronyms and expressions (preserving the same meanings). Adjectives, adverbs, nouns, verbs and forms not recognized as categories of words were included for the software analysis process and the analysis was performed by Classical Textual Statistics and Descending Hierarchical Classification (DHC). The occurrences of each of the classes in the DHC were ordered according to the chi-square test value ($x^2 > 3.80$), descending, and all presented statistically significant values ($p<0.05$).

**Results**

The productions that comprised this study could be characterized according to the year of publication: two in 2016, two in 2017 and one in 2019; the country where the research was developed: two in Australia, one in Mexico and two in Brazil (one in the Northeast and the other in the Southeast Region); the language: three in English, one in Spanish and one in Portuguese; the methodological approaches used: three cross-sectional quantitative researches and two qualitative researches, with one of them using the theoretical framework of phenomenology. The consolidated of the selected articles is presented as synthesis chart with the year of publication, name of the journal, title of the article, country where the research was developed, main objective and methodological approach used (Chart 1).
Chart 1 – Characterization of the studies addressing nursing students’ perception of the nurses’ work in Primary Health Care.

<table>
<thead>
<tr>
<th>Year</th>
<th>Journal</th>
<th>Title</th>
<th>Research Country</th>
<th>Objectives</th>
<th>Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>Revista de Enfermagem do Centro-Oeste Mineiro</td>
<td>Perception of undergraduate nursing students on the nurse’s work</td>
<td>Brazil</td>
<td>To identify the perception that nursing students have about the nurse’s work</td>
<td>Qualitative research, using a semi-structured interview with 33 nursing students from a university in northeastern Brazil</td>
</tr>
<tr>
<td>2016</td>
<td>Revista de Pesquisa: Cuidado é Fundamental Online</td>
<td>The theory into practice: teaching-service dialogue in the context of primary healthcare in the training of nurses</td>
<td>Brazil</td>
<td>To understand the nursing graduate students’ perceptions of their insertion in the practice of primary health care services.</td>
<td>Qualitative research with a phenomenological approach with 9 final-year students from a state university in southeastern Brazil</td>
</tr>
<tr>
<td>2017</td>
<td>Nurse Education Today</td>
<td>Australian student nurse’s knowledge of and attitudes toward primary health care: a cross-sectional study</td>
<td>Australia</td>
<td>To investigate undergraduate Australian nursing students’ knowledge of and attitudes toward the primary health care approach.</td>
<td>Quantitative, descriptive, cross-sectional research, with 286 nursing students from two Australian universities.</td>
</tr>
<tr>
<td>2017</td>
<td>Nurse Education Today</td>
<td>Factors associated with final year nursing students’ desire to work in the primary health care settings: findings from a national cross-sectional survey</td>
<td>Australia</td>
<td>To identify factors associated with final year nursing students’ desire to work in primary health care setting including demographic factors, expectations of future employment conditions, and job content</td>
<td>Quantitative, descriptive, cross-sectional research, with 530 final-year nursing students from 14 Australian universities.</td>
</tr>
<tr>
<td>2019</td>
<td>Revista Ciencia y Cuidado</td>
<td>Academic and labor expectations for nursing students</td>
<td>Mexico</td>
<td>To know the academic and labor expectations of students in their last semester of Nursing school in a public university in Mexico City.</td>
<td>Quantitative, descriptive, exploratory and cross-sectional research, with 105 nursing students from a university in Mexico City.</td>
</tr>
</tbody>
</table>

Source: Created by the authors.
Regarding the process of analysis of the Conclusions or Final Thoughts of the articles, the general corpus consisted of five texts, separated into 27 TS, using 20 text segments (TS) (74.07%). There emerged 1,001 occurrences (words, forms or terms), 365 of which were distinct words and 233 with a single occurrence. The analyzed content was categorized into three classes: Class 1, with five TS (25%); Class 2, with six TS (30%) and Class 3, with nine TS (45%).

Flowchart 2 – Dendrogram of trends of scientific articles - Descending Hierarchical Classification elaborated by the software IRAMUTEQ

Subcorpus A refers to “Nursing in PHC”, and Class 1 was constituted by the word and radical “nurse” \( (x^2 = 10) \) and corresponds to the lack of nurses working in PHC, even before a global health context that requires this specificity of health care of the population. Some fragments of texts exemplify the categorization of this class: “PHC is an area that requires immediate attention regarding the development of qualified nurses [...] given the lack of nurses working in PHC and the current and future health care needs of the population”\(^{(11,13)}\). Another fragment of the text: “The need to deepen discussions is emphasized especially in universities and in the UHS, as well as the performance of more specific studies on the education of nurses in PHC, which are scarce\(^{(12,508)}\).

Class 2 consisted of the words and radicals “practical” \( (x^2 = 7.98) \), “how” \( (x^2 = 5.71) \) and “development” \( (x^2 = 4.82) \) and corresponds to the process of university education of nursing students being linked to PHC, because this process encourages the existence of nurses able to work in this health care instance, as well as develops other professional domains in students, such as the bond and understanding of the individual in
his/her entirety. Here are some fragments of text that elucidate this class: “The recognition of the determinants of the health-disease process, the link to the holistic view of the patient [...] towards innovative actions that go beyond technique and can contribute to subsidies to reverse the model of medical-hospital care still in use” \(^{(12)}\). “The health system may or may not be based on the biomedical model, which may affect people’s attitudes towards PHC\(^{(13,14)}\).

Subcorpus B is composed of Class 3, consisting of the words and radicals “student” \((x^2 = 9.9)\), “result” \((x^2 = 6.11)\), “no” \((x^2 = 4.31)\), “profession” \((x^2 = 4.31)\) and “field” \((x^2 = 4.31)\) and relate to the perceptions presented by nursing students about the profession, something focused on care, especially in the hospital environment, as demonstrated by some fragments of texts of some articles: “The analysis of the descriptions revealed that the students perceive the profession as something that requires the professional’s affection and love for others” \(^{(14)}\). “The academic and professional expectations of the students who participated in this research are focused on the clinical field, especially in hospitals” \(^{(15)}\). “In Australia, we know that most students prefer to work in hospital environments” \(^{(11,13)}\).

**Discussion**

It is noticeable the scarce number of scientific articles gathered by this integrative review. This fact is in line with what all the articles pointed out: the need for the development of primary research on the subject, in addition to a view towards the training process of nursing students regarding PHC.

The number of quantitative and qualitative studies found reflects, in a way, the need for both approaches in the construction of scientific knowledge, the methodological particularities presented in each one and the complementarity they have in explaining results and constructing hypotheses to be unveiled in future studies. This finding points to the potential of studies that contemplate quantitative and qualitative methods, as these enable the development of researches producing data that favor an interpretation of the investigated phenomenon with greater completeness and comprehensiveness \(^{(16)}\).

Concerning the contributions of the studies, the five articles were clear in their contributions to the knowledge of the area, and three of them (a quantitative study \(^{(13)}\) and two qualitative studies \(^{(12,14)}\)) specifically presented the need to expand beyond the local reality, considering that the results presented could not necessarily be generalized to other contexts. It is noteworthy that the two qualitative studies are inserted in this conjuncture. Although they do not consist of a significant sample in the range of qualitative studies, they bring up the problem of generalizations that this approach allows (or does not) for the field of science. However, there is agreement that, despite these productions focusing on the microsocial universe and the deepening of human phenomena, they subsidize the understanding of similar processes that happen to human beings before the same challenges, thus enabling generalizations, but not in the same perspective of statistical significance \(^{(17)}\).

One of the studies pointed to the need for a critical look at the curricular structure of graduate nursing courses, associating this process with a possible improvement of PHC-oriented training \(^{(15)}\). Another concluded that most nursing students prefer to work in hospital environments, lacking projects of various spheres for the development of initiatives that increase the attractiveness of PHC as an area nurses’ activity \(^{(11)}\). This finding is in agreement with other scientific studies that have pointed to the large concentration of health professionals in urban areas and in tertiary care services (hospital) \(^{(18-21)}\). Furthermore, there is a great disparity in the index “medical professionals and nurses per inhabitant” when comparing developed countries to developing countries. In the United States and United Kingdom, for example, this proportion reaches 12.7 and 12.3, respectively, while in sub-Saharan Africa, it is below 1.1 physician and nurse for every thousand inhabitants \(^{(19)}\). Regarding nursing professionals, there is an unequal distribution
both within and between the various countries of the world. In half of the countries, the rate of nurses per ten thousand inhabitants is less than or equal to 10.4. Similarly, there is a great difference when comparing this same index in Canada (106.2), the United States (111.4) and Cuba (81.3) to other countries in the world. 

Thus, the lack of nurses in the health care of the world population is noticeable, and this deficit is even greater upon focusing on the PHC. This finding is also noticeable in Class 1 of this study, which points to the need for a triple investment to foster the prospect of opening new job places and opportunities in this healthcare instance; the improvement of nurses’ training for a qualified approach to health care in the PHC context; and the improvement of their technical capacity in the resolution of cases within PHC.

In 2017, the World Health Organization (WHO) held a meeting that pointed to the need for advances in the technical qualification of nursing professionals, in addition to the Nursing Now movement itself, which recommends collaboration between several international organizations to raise the representation of nursing, elaborating a profile of skills and competencies for their performance in PHC, which includes: clinical practice; leadership; experience in the care of the user, family and community; investment in health promotion; development of interprofessional actions and decisions based on ethics.

In relation to what Class 2 presents, primary studies and a systematic review of scientific literature point to the power of practical activity in the context of health services over professional training regarding the promotion of specific skills, attitudes and knowledge for the performance in this healthcare instance.

At the XVI National Seminar of Guidelines for Nursing Education and the XIII National Symposium on Nursing Diagnosis, held in Florianópolis in 2018 and promoted by the Brazilian Nursing Association, a letter was prepared with recommendations that reinforce the relevance of the teaching-service-community integration since the beginning of the course, inserting students in the practice scenarios, articulating them to the daily life experienced by health professionals. Before that, the 2010 special edition of The Lancet journal highlighted the relevance of integrating the health system into the educational system, reinforcing its importance in the composition of the training process. These notes corroborate Class 2 of the present production, which presents the need for a university education linked to the real context of PHC.

Moreover, for the nurses' professional training consistent with the current context that aims to ensure greater professional autonomy, there is need for a training process that takes into account the expectations of nurses regarding their professional and social role, as well as the identification of the population’s health needs, strengthening their inclusion in curricular discussions and researches that take into account the social and political reality of the country.

In relation to expectations regarding the nursing profession, the present study presented, in Class 3, the hospital environment and affection and love for others as some of the characteristics of the profession pointed out by nursing students. A study developed in Argentina with 194 nursing students pointed to the fact that, during professional training, new elements are integrated into the students' social representations, transforming them and making them more complex. Thus, representative changes occur in university education when comparing first-year students to final-year students.

Another study, developed in the Netherlands, with 240 nursing students, concluded that the hospital area is the preferred option of recent graduates (about 70% of the participants). This finding stresses the need for a more incisive teaching action, stimulating a more community university education and linked to PHC. This fact resumes the point made about the need for greater investment in nurses’ education, which guarantees a coherent and qualified approach to health care in the context of PHC, understanding that this professional training takes place in the University, articulated to the real context of health
services and directly linked to the performance of PHC professionals.

It is relevant to articulate professional practice with scientific evidence, with skills and attitudes taught and learned, and not as something linked to subjective and sentimental characteristics of the human being, such as affection, love, tenderness and affinity, for example. These feelings reflect on submission behaviors and are associated with a historical burden of the profession, valued and expected at that time. However, this seems to “contribute that the profession and the professional do not gain due respect and remain socially invisible”\(^\text{[31:15]}\).

The limitation of this production was due to the relatively small textual corpus of analysis, although analyzable and propositional, because it directly contributed to the production of knowledge in nursing, evidencing the scarce production of primary studies addressing nursing students’ perception of nurses’ work in PHC, and involving this qualitative perspective in the search to understand a little more the profile of nursing professionals who have been trained in the current context.

**Conclusion**

The existing primary studies analyzed in this review point to the small number of nurses trained to work in PHC, the need and benefits of a university education linked to this instance of health care, and that nursing students perceive the profession as a work that uses affection, love for others and an action more focused on the hospital environment.

The results show that the process of training and/or production of knowledge in nursing still links the profession to subjective characteristics, requiring the advance towards a nursing based on scientific evidence, with a training composed of “teachable” and “learnable” skills and attitudes.

In short, the global trends regarding the training of the nursing professional, centered on autonomous, problem-solving health care and reflecting on concrete benefits directed to society, should be followed.
Students' perception of nurses' role in Primary Health Care: integrative review


15. Souza LB, Bonamigo AW. Integração ensino-serviço na formação de profissionais para sistemas públicos


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