

Nursing competencies in the *Buurtzorg* model: a cross-sectional study in the Brazilian context

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Abstract

Objective: To evaluate the professional competencies of nurses working in the *Buurtzorg* Brazil model.

Methods: Analytical and cross-sectional study, following the guidelines of *Strengthening the Reporting of Observational Studies in Epidemiology* (STROBE). The research took place from August 2023 to March 2024 with 57 active professionals, distributed in the states of Rio de Janeiro, São Paulo, Bahia, Sergipe, Goiás, and the Federal District. Two instruments were used for data collection, made available digitally to participants: the sociodemographic and professional form for nurses and the *Competency Assessment Instrument for Advanced Practice Nurses*. Descriptive statistics were used to assess the professional competencies of nurses working in the *Buurtzorg* Brazil model.

Results: The sample was predominantly female, aged between 26 and 30 years old, single and without children, predominantly white, and the main breadwinners of their families. Most of the nurses lived in capital cities, had previous work experience, worked between 31 and 60 hours per week, earned between one and three minimum wages, and had only one employment relationship. The most developed competencies were professional autonomy, evidence-based practice, and care management.

Conclusion: The competencies assessed in the *Buurtzorg* model represent the possibility of advanced nursing practice in the home setting, which requires the development and improvement of autonomy, professional self-management, and team and patient management.

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Introduction

The definition of professional competencies is widely debated in literature, being understood by some as a set of knowledge, skills, and attitudes necessary for individuals to perform their duties and responsibilities. In the context of nursing, these competencies are anchored in practical experiences, environmental influences, and the healthcare system in which professionals work. When developed, competencies integrate knowledge, techniques, attitudes, and reasoning skills, generating positive results for patients, nursing professionals, the profession, and healthcare organizations.

With an aging population and an increase in chronic diseases, new models of care have emerged, such as the Dutch model of home care *Buurtzorg*, created in 2006 and brought to Brazil in 2020. This model is characterized by prioritizing patient independence and nursing team autonomy, raising questions about the specific professional competencies required for its implementation.⁽³⁾

Buurtzorg, a benchmark in home care for the elderly in primary care, with more than 14,000 employees, stands out for its self-management of autonomous, decentralized teams supported by information technology. Each team, composed of up to twelve nurses, without supervisors or managers, makes decentralized decisions and is responsible for all care management, from scheduling to hiring new members, supported by technology and internal coaches.

The model is based on five core principles: autonomy, simplicity, trust, adaptability, and patient focus. Unlike many traditional healthcare systems, it avoids a rigid hierarchical structure and, from the perspective of the *Buurtzorg* model, nurses' competencies are related to self-managed and autonomous performance. Through self-management, these professionals organize their work routine and draw up individual care plans for each client.⁽⁵⁾

With regard to competencies, the process of implementing this model in international experiences indicates that some initial challenges are associated with team building and the tension generated by structural changes in the way of working. However,

this does not discourage positive experiences, which highlight benefits such as greater job satisfaction and better quality of care, affirming that it is not necessary to faithfully replicate the model, but rather to adapt teamwork to the local context.⁽⁶⁾

In the Brazilian context, the implementation of *Buurtzorg* began in October 2020, in Rio de Janeiro, through a partnership with a private company that operates as a supplement to the health system. The project started with four nurses and 40 patients, aiming to improve care and reduce costs. In 2021, it expanded to other states, making the operation more complex due to Brazil's territorial size and cultural differences. By 2022, the group had 85 professionals working in the states of Rio de Janeiro (35 professionals), São Paulo (26), Bahia (14), Sergipe (7), Goiás (2), and the Federal District (1), covering the Northeast, Midwest, and Southeast regions.

Given the innovative nature of the model, designed and coordinated by nurses, and the scarcity of data on the profile of professionals working in Brazil, this study aimed to assess the professional competencies of nurses working in the *Buurtzorg* Brasil model. This is particularly relevant considering that existing studies are still in their infancy and that most publications address the implementation of the model.

Methods

This is an analytical, cross-sectional study, conducted at a single point in time and without interference in the phenomenon under investigation, following the guidelines of *Strengthening the Reporting of Observational Studies in Epidemiology* (STROBE).⁽⁷⁾ The research was conducted between August 31, 2023, and March 1, 2024.

The inclusion criterion for participation in the study was nurses working at the company, regardless of length of service, and the exclusion criteria applied were: the presence of ongoing administrative proceedings, vacation periods, leave, medical certificates, and failure to respond to the online questionnaire during the data collection period.

The study was conducted through the application of digital questionnaires that were sent to a

group of 85 active nurses distributed across the states of Rio de Janeiro, São Paulo, Bahia, Sergipe, Goiás, and the Federal District, covering the Northeast, Midwest, and Southeast regions of Brazil.

Of the 85 forms sent, 57 were answered (response rate of 67%) and the rest were not.

Two instruments were used for data collection, made available digitally to the research participants. The first was the sociodemographic and professional questionnaire for nurses, developed by the researchers based on the final report on the profile of nursing in Brazil, developed by Fiocruz in partnership with the Federal Nursing Council.⁽⁸⁾

The second instrument was the *Instrument for the Evaluation of Competencies for Advanced Practice Nurses* (IECEPA), developed in Spain in 2017. This instrument assesses the competencies of nurses in both primary health care and hospital settings. It was chosen for the study because it has been successfully adapted and validated for Brazilian culture, in addition to its methodological rigor and applicability at different levels of health care.⁽⁹⁾

The Brazilian version of the IECEPA⁽⁹⁾ aims to assess the competencies of nurses according to the roles and standards required in the Nursing Process (PAE). The instrument consists of 44 items distributed across eight dimensions: (1) Research and Evidence-Based Practice; (2) Clinical and Professional Leadership; (3) Professional Autonomy; (4) Interprofessional Relationships and Mentoring; (5) Quality Management; (6) Care Management; (7) Teaching and Professional Education; and (8) Health Promotion.

Each dimension covers specific aspects of professional practice. The Research and Evidence-Based Practice dimension, consisting of eight items, assesses the integration between scientific research, identification of relevant evidence, and its application in clinical practice. The Clinical and Professional Leadership dimension, with four items, highlights the role of nurses in guiding other professionals and ensuring quality care. Professional Autonomy, also consisting of eight items, assesses the ability to make diagnoses, prescribe therapeutic interventions, and refer patients to other specialists.

The Interprofessional Relations and Mentoring dimension, with six items, assesses the nurse's ability to collaborate with other health professionals and act as a reference for less experienced professionals. Quality Management, with four items, measures the competence to evaluate and improve the effectiveness of care practices. Care Management, consisting of six items, examines performance in coordinating care at different levels of the health system.

The Teaching and Professional Education dimension, with four items, addresses the role of nurses in training patients, family members, and other professionals. Finally, Health Promotion, also consisting of four items, focuses on strategies aimed at improving and restoring the health of users.

Each item is assessed using a five-point *Likert* scale, in which the professional indicates the frequency with which they perform a given competency in their daily practice. The response options range from "never" (1 point) to "always" (5 points), with higher scores indicating greater frequency in the use of the competency assessed in professional practice.

Descriptive statistics were used to assess the professional competencies of nurses working in the *Buurtzorg* Brazil model. All statistical analyses were performed in the *R Core Team* programming environment (version 4.3.2), with a significance level of 5%.

The inclusion of nurses in the research occurred after the registration of consent, applied from the Free and Informed Consent Registry for virtual environments (RCLE), made available digitally along with the other research documents. The research complied with the ethical and legal aspects of Resolution 466/2012 of the National Health Council, and was approved by the Research Ethics Committee of the Federal University of Sergipe, under Opinion No. 6,230,807 (CAAE 71087223.5.0000.5546), on August 10, 2023.

Results

The study sample consisted of 57 nurses working in the *Buurtzorg* model of home care in Brazil, dis-

tributed across five Brazilian states and the Federal District. Nurses from Rio de Janeiro (RJ) represented the largest participation, corresponding to 46% of the responses, followed by São Paulo (SP) with 21%, Bahia (BA) with 18%, Sergipe (SE) with 12%, and both the Federal District (DF) and Goiás (GO) with 1.8% each. In Sergipe and the Federal District, all nurses linked to the group participated fully in the survey.

The sample was composed mainly of women (93%), totaling 53 female professionals. The predominant age group is between 26 and 30 years old, with the majority being single and without children.

Regarding self-declared race, 28 nurses (50%) identified themselves as white. Regarding income, 29 participants (51%) stated that they were the main source of support for their families' expenses. Most nurses (81%) lived in the capitals of the states where they worked. Regarding professional experience, 41 participants (72%) reported that this was not their first job, and 27 (49%) reported between one and five years of experience in the labor market.

Among the participants, 24 (42%) reported a weekly work schedule of between 31 and 60 hours, and 34 (60%) reported a monthly income of between one and three minimum wages. In addition, 29 nurses (57%) had only one employment relationship.

Regarding professional competencies, the study revealed that, in the *Buurtzorg* model in Brazil, the following stand out as the main ones: professional autonomy, evidence-based research and practice, and care management (Table 1). These three competencies stood out because they had the highest averages in the study. With a sample of $n=57$, the averages obtained were 35.4 (SD 5.0), 25.6 (SD 3.8), and 23.0 (SD 2.46), respectively.

Discussion

This research presents a novel approach to the professional competencies of nurses working in the *Buurtzorg* model in Brazil. Although there is growing interest in studies on new health models and advanced nursing practice, especially in the context of

Table 1. Professional competencies of *Buurtzorg* Brazil nurses

Characteristics	Scores	
	Mean (SD) / Median [AIQ]	
DM1 - Evidence-based research and practice	25.6 (3.8)	26.0 [24.0, 29.0]
DM2 - Clinical and professional leadership	12.23 (2.79)	13.00 [11.00, 15.00]
DM3 - Professional Autonomy	35.4 (5.0)	37.0 [33.0, 39.0]
DM4 - Interprofessional Relations and Mentoring	18.00 (2.28)	19.00 [16.00, 20.00]
DM5 - Quality Management	16.3 (3.7)	17.0 [14.0, 20.0]
DM6 - Care management	23.00 (2.46)	24.00 [22.00, 25.00]
DM7 - Teaching and professional education	18.75 (1.94)	20.00 [19.00, 20.00]
DM8 - Health Promotion	18.35 (1.76)	19.00 [17.00, 20.00]
IECEPA - Instrument for Evaluation of the Competencies of Advanced Practice Nurses	168 (18)	174 [158, 181]

*SD- Standard Deviation; IQR- Interquartile Range; DM1- Dimension 1; DM2- Dimension 2; DM3- Dimension 3; DM4- Dimension 4; DM5- Dimension 5; DM6- Dimension 6; DM7- Dimension 7; DM8- Dimension 8

home care, as proposed by *Buurtzorg*, the available research is still scarce or insufficient.

The data highlighted by this study show that the profile of nurses working in the *Buurtzorg* Brazil model is mainly composed of women, self-declared white, aged between 26 and 30 years, single, and without children. These findings are consistent with a 2019 study that characterized home care professionals in Brazil as a predominantly female, young, specialized workforce concentrated in urban centers.⁽¹⁰⁾

This pattern reinforces the understanding that nursing in the country is mostly composed of women, with the predominance of the age group between 26 and 30 years old indicative of the significant presence of professionals at the beginning of their careers.⁽⁸⁾ This age and gender composition may be associated with the attractiveness of the profession to young women, especially due to the flexible working arrangements and the growing demand in the home health sector.

This study highlighted three main professional competencies among nurses in the *Buurtzorg* Brazil model: autonomy, evidence-based practice, and care management.

Autonomy is favored by working in small, self-managed teams, in which professionals exercise self-responsibility and make clinical decisions based on critical judgment and personalized care. When developed effectively, this competency contributes to reducing fragmentation of care and increasing the engagement of professionals in the work process.

The autonomous teams at *Buurtzorg* are fully responsible for defining tasks, goals, work coordi-

nation, hiring, and team performance. Autonomy is central to motivating professionals, who have the freedom to serve clients in the best way possible. Conflict resolution is also managed by the teams themselves, with support from colleagues and mentors.

In contexts such as Brazil, where health services face challenges related to fragmentation and hierarchical rigidity, promoting autonomy among nurses can represent a professional advance. The development of self-management competencies, both in individual practice and in team organization, contributes to more horizontal, collaborative, and centered working relationships. Thus, professional autonomy is not only an individual practice but also a strategic component for the transformation of healthcare models.⁽¹²⁾

The competence of evidence-based research and practice, also observed in this study, is aligned with another striking feature of the model, studied by Monsem *et al.* (2013), which emphasizes clinical judgment based on scientific evidence for the provision of care.⁽¹³⁾ Care in health systems can be organized in various ways, focusing on principles such as universality, equity, and comprehensiveness. However, most countries face challenges such as high costs, segmentation of services, and inequalities in access. Advanced nursing practice emerges as an essential component in the search for effective solutions to improve health systems, offering significant contributions to population health management and quality of care.⁽¹⁴⁾

The idea of advanced practice in home health care is defended, using skills based on clinical knowledge and targeted interprofessional communication, which in the *Buurtzorg* model becomes relevant for the flexibility and continuity of person-centered care, with team training for self-managed environments and the use of digital technologies.^(15,16)

Competence in care management in the *Buurtzorg* model is essential, considering the focus on integration and coordination of care. Nurses take on responsibilities such as organizing individualized plans and coordinating community resources, promoting continuity and avoiding gaps in care.⁽¹⁷⁾ In the *Buurtzorg* model, care management requires a

systemic vision, leadership skills, and sensitivity to map and mobilize available resources in the territory, promoting more effective care centered on the real needs of the patient and their support network.⁽¹⁵⁾

In the Brazilian health model, within the scope of Primary Health Care, nurses need skills related to leadership, continuing education, ethics, communication, teamwork, people management, material resource management, health care, and decision-making, which are essential to ensure the comprehensiveness, humanization, and efficiency of services. The improvement of these skills should begin in academic training and be continuously encouraged by managers, with the aim of promoting professional qualification and the transformation of work processes.⁽¹⁸⁾

International models, such as those implemented in Canada and the United States, demonstrate that the integration of professional autonomy, evidence-based practice, and care management is associated with improved health outcomes, reduced costs, and increased patient and professional satisfaction.⁽¹⁹⁾

It should be noted that a limitation of this study is the scarcity of national literature on the *Buurtzorg* model in the field of home care, due to its still innovative nature in Brazil. In addition, studies on the competency profile of nurses working with advanced nursing practices in the context of home care are still in their infancy, which limits the possibility of comparisons with other groups and contexts, indicating the need for further research on the topic.

Conclusion

This is the first study on the professional competencies of nurses working in the *Buurtzorg* model in Brazil, and the results indicate that the most developed competencies were professional autonomy, evidence-based practice, and care management, which is in line with the pillars of the *Buurtzorg* model of home care for the elderly. This research highlights the contributions of the *Buurtzorg* model as an advanced nursing practice, requiring specific competencies from nurses in the context of primary care

and home care, which still need to be developed and improved during academic training, such as autonomy, professional self-management, and team and patient management. For these competencies to be effectively recognized as advanced practices, it is essential to develop new approaches aimed at training the nurses of the future. Furthermore, by introducing an innovative model of care in which nurses play a central role in service management and direct client care, the study strengthens the nursing profession broadly, promoting the empowerment of professionals and expanding their fields and forms of practice.

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Collaborations

Castro ECS contributed to the conception and design or analysis and interpretation of data; drafting of the manuscript or critical review of intellectual content and final approval of the version to be published. Andrade ICS contributed to the drafting of the manuscript or critical review of intellectual content and final approval of the version to be published. Pinheiro FGMS contributed to the conception and design or analysis and interpretation of data; drafting of the manuscript or critical review of intellectual content and final approval of the version to be published.

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