

# The Patient Safety Culture Among Primary Health Care Professionals In a Capital In Northern Brazil

A Cultura de Segurança do Paciente da Atenção Primária à Saúde no Norte do Brasil

La Cultura de Seguridad Del Paciente En Atención Primaria De Salud En Norte De Brasil

## RESUMO

Objetivo: Avaliar a cultura de segurança do paciente na Atenção Primária à Saúde em Porto Velho, Rondônia. Método: Pesquisa quantitativa, transversal tipo survey com instrumento padronizado. Dados coletados de 2020 a 2021 com profissionais de saúde. Resultado: Dos 51 questionários respondidos, 49 (96%) foram válidos. Das seis categorias profissionais destacaram-se agentes comunitários de saúde (52%) e técnicos de enfermagem (12%); 37% atuavam na unidade por seis a 11 anos e 24% há mais de 11 anos; 65% cumpriam de 33 a 40 horas semanais. A dimensão melhor avaliada foi "Trabalhando neste serviço de saúde", com um score de 80%, ponto forte para a segurança do paciente. Na avaliação geral, 72% classificou o serviço como Bom. Conclusão: Das dimensões analisadas prevaleceu a avaliação negativa da cultura de segurança do paciente. Diante dos achados é possível planejar prospectivamente ações relevantes ao fortalecimento da segurança do paciente nas dimensões verificadas como frágeis.

**DESCRITORES:** Segurança do paciente; Medição de Processos; Atenção Primária à Saúde.

## ABSTRACT

Objective: To evaluate the patient safety culture in Primary Health Care in Porto Velho, Rondônia. Method: Quantitative, cross-sectional survey using a standardized instrument. Data collected from 2020 to 2021 from healthcare professionals. Results: Of the 51 questionnaires answered, 49 (96%) were valid. Of the six professional categories, community health workers (52%) and nursing technicians (12%) stood out; 37% had been working in the unit for six to 11 years and 24% for more than 11 years; 65% worked 33 to 40 hours a week. The best rated dimension was "Working in this health service", with a score of 80%, a strong point for patient safety. In the overall assessment, 72% rated the service as Good. Conclusion: Of the dimensions analyzed, a negative assessment of patient safety culture prevailed. Given the findings, it is possible to prospectively plan relevant actions to strengthen patient safety in the dimensions found to be weak.

**DESCRIPTORS:** Patient Safety; Process Measurement; Primary Health Care.

## RESUMEN

Objetivo: Evaluar la cultura de seguridad del paciente en la Atención Primaria de Salud en Porto Velho, Rondônia. Método: Encuesta cuantitativa, transversal, utilizando un instrumento estandarizado. Datos recogidos entre 2020 y 2021 de profesionales sanitarios. Resultados: De los 51 cuestionarios contestados, 49 (96%) fueron válidos. De las seis categorías profesionales, destacaron los agentes de salud comunitarios (52%) y los técnicos de enfermería (12%); el 37% llevaba trabajando en la unidad entre 6 y 11 años y el 24% más de 11 años; el 65% trabajaba entre 33 y 40 horas semanales. La dimensión mejor valorada fue «Trabajar en este servicio sanitario», con una puntuación del 80%, un punto fuerte para la seguridad del paciente. En la evaluación global, el 72% calificó el servicio como Bueno. Conclusión: De las dimensiones analizadas, prevaleció una valoración negativa de la cultura de seguridad del paciente. A la vista de los resultados, es posible planificar prospectivamente las acciones pertinentes para reforzar la seguridad del paciente en las dimensiones que resultaron débiles.

**DESCRIPTORES:** Seguridad del Paciente; Medición de Procesos; Atención Primaria de Salud.

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# Quantitative Article

Santos FB, Hang AT, Pinheiro AS, Pereira PPS, Pontes DO, Júnior EFF, Lemke GMMN  
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- ID** **Fabrcio Brito dos Santos**  
Nutritionist. Specialist in Family Health at the Federal University of Rondônia. Porto Velho, Rondônia, Brazil.  
ORCID: <https://orcid.org/0000-0002-9878-0206>
- ID** **Adriana Tavares Hang - Enfermeira**  
Nurse. PhD, Adjunct Professor in the Nursing Department at the Federal University of Rondônia. Porto Velho, Rondônia, Brazil.  
ORCID: <https://orcid.org/0000-0002-5185-0473>.
- ID** **Aldrin de Sousa Pinheiro**  
Nurse. Master's Degree, Assistant Professor, Department of Nursing, Federal University of Rondônia. Porto Velho, Rondônia, Brazil. ORCID: <https://orcid.org/0000-0002-7256-9939>.
- ID** **Priscilla Perez da Silva Pereira**  
Nurse. PhD, Adjunct Professor, Department of Nursing, Federal University of Rondônia. Porto Velho, Rondônia, Brazil. Tel.: (69) 99258 6851.  
ORCID: <https://orcid.org/0000-0001-8900-6801>.
- ID** **Daniela Oliveira Pontes**  
Nurse. PhD, Adjunct Professor, Department of Nursing, Federal University of Rondônia. Porto Velho, Rondônia, Brazil. Tel.: (69) 99214 8815.  
ORCID: <https://orcid.org/0000-0001-7280-0638>.
- ID** **Evandro Francisco de Farias Júnior**  
Nursing student, Department of Nursing, Federal University of Rondônia. Porto Velho, Rondônia, Brazil. Tel.: (69) 99226 1665.  
ORCID: <https://orcid.org/0000-0001-7280-0638>.
- ID** **Geysa Maria Malaquias do Nascimento Lemke**  
Nutritionist. Master's degree, Rondônia State Health Department. Porto Velho, Rondônia, Brazil.  
ORCID: <https://orcid.org/0000-0001-5014-7842>.

## INTRODUCTION

Patient safety has been the subject of study and considered to be of great relevance in several countries around the world, mainly due to the impacts that adverse events can cause: suffering of families and professionals, high healthcare costs and deaths.<sup>(1)</sup>

Although the dimensions of patient safety have been extensively explored in the hospital environment, from 2012 onwards the World Health Organization (WHO) established the working group on patient safety in primary care.<sup>(2)</sup> From this perspective, studies on patient safety in Primary Health Care (PHC) aim to investigate and define the risks to patients in primary care, the magnitude and nature of avoidable harm resulting from unsafe practices, in addition to patient protection and safety mechanisms in PHC.

The APS is the main gateway to the Bra-

zilian Unified Health System (SUS), and is made up of teams that work in a defined territory based on obtaining and analyzing information about the living and health conditions of populations by the unit itself together with the primary care department.<sup>(3)</sup>

Countries such as Australia, the United States, the United Kingdom and Spain have invested in studies on patient safety in PHC. A systematic review on patient safety in PHC concluded that there are still knowledge gaps on this topic in developing countries, including Brazil.<sup>(4)</sup>

In Spain, a retrospective cohort study conducted between February 2018 and September 2019 in PHC found that out of 2,557 medical records evaluated, there were 182 adverse events. Women were more affected than men and 4.1% of adults suffered permanent damage.<sup>(5)</sup> In Brazil, in Manaus, a study conducted in 2018, evaluated 34,087 consultations and found an incidence of 3

incidents for every 1,000 consultations. The incidents were more common among the elderly, 37% had recorded damage, 33% of which was minimal damage, 17% moderate damage and two deaths.<sup>(6)</sup>

Even with the creation of the National Patient Safety Policy (PNSP) in 2013, patient safety and safety culture focused on Primary Health Care (PHC) were only addressed in 2017, in the update of the Primary Care Policy, published by Ordinance No. 2,436/2017. Ordinance 2,436/2017 highlights the need to implement patient safety actions within the scope of PHC, aiming to promote safe care and encourage a culture of patient safety among professionals working in primary care.<sup>(7)</sup>

Patient safety culture is a multifactorial structure, with the aim of promoting a system approach to preventing and reducing harm to patients, and is

essentially a culture in which everyone is aware of their role and contribution to the organization, assuming responsibility for the consequences of their actions. Furthermore, patient safety in PHC is not restricted to the user alone, as actions and services must be organized to serve the user and their family, in addition to the professional who provides health care.<sup>(9)</sup>

“ Understanding the magnitude of the problem and its determinants is fundamental for the construction of policies and programs that are effective in reducing adverse healthcare events, increasing patient safety and making the healthcare system more effective and efficient.<sup>(1)</sup> ”

In Brazil, there is great heterogeneity in the structures and organizations of work processes in PHC. It is known that the North region has specific populations, differentiated access to technologies, access to professional training that is still limited, and other characteristics that make this region different from large urban centers. In a previous literature review, only one study on

the subject conducted in the North region of Brazil was found.<sup>(6)</sup> No study that presents the reality of the state of Rondônia. Given the above, this study aimed to evaluate the patient safety culture in Primary Health Care in the municipality of Porto Velho, Rondônia.

## METHOD

This is a cross-sectional study conducted in basic health units in the urban area of the eastern part of the municipality of Porto Velho, Rondônia. Porto Velho is a Brazilian municipality in the North region, capital of the state of Rondônia, with a population of approximately 520 thousand inhabitants according to IBGE estimates (2018). This Brazilian capital has a territorial area of over 34 thousand km<sup>2</sup>, with an average of 25 thousand inhabitants (4.8% of the population) living in extreme poverty, while 84.5 thousand inhabitants (16.3%) have health insurance.<sup>(10)</sup>

The eastern part of the municipality has seven Family Health Units and approximately 217 professionals, including doctors, nurses, dentists, nursing technicians, oral hygiene technicians and community health agents. All of these professionals were invited to participate in the study. Professionals who had been working at the unit for at least two months were included. Professionals on vacation, on leave and/or on medical leave were excluded.

Data collection was carried out using the instrument “Medical Office Survey on Patient Safety Culture (MOSPSC), developed by the Agency for Health Care Research and Quality (AHRQ). This instrument has proven useful as a form of scientific research, being cross-culturally adapted and validated for use in different scenarios by several countries. In Brazil, this questionnaire was applied and cross-culturally validated.<sup>(11)</sup> The aforementioned instrument, organized into sections, measures 12 dimensions of the patient safety construct

and a global assessment, in addition to section H that addresses characteristics of professionals and section I with discursive questions.

The professionals' perception of patient safety was verified in sections (A - G), using the percentage of positive and negative responses in each question. The responses were presented and classified as positive, neutral and negative responses for patient safety. In the questions expressed in negative form, the responses were computed in reverse form, thus, according to their sections, the responses were classified according to the grouping of responses.

The instrument was sent electronically and edited with the help of the Google Forms tool. The form was available from August 30th, 2020 to January 25th, 2021, through virtual social networks to eligible study participants.

The data collected were organized and stored in a Microsoft Excel 2019 spreadsheet, and analyzed using descriptive statistics, using the response frequency for each item in the questionnaire as per AHQR guidelines<sup>(12)</sup>.

To determine the items classified as strengths or weaknesses for patient safety in the city of Porto Velho, the percentage of positive responses to each question was considered, with a score above 75% being considered a strength.

The dimensions were considered weak or critical when 50% or more of the participants responded negatively, choosing to completely disagree/disagree or never/rarely for questions formulated positively, or using completely agree/agree, always/frequently for questions formulated negatively.<sup>(12)</sup>

For Section G, which provides an overall assessment of patient safety and the quality of healthcare services, the percentage of responses for each item was calculated in order to classify it as poor, reasonable, good, very good or excellent.

This research is linked to the main study “Good practices in patient care, infection control and processing of

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healthcare products in the state of Rondônia”, authorized by the Research Ethics Committee (CEP) of the Federal University of Rondônia (UNIR) under opinion no. 3,771,377 and complied with the ethical precepts for research involving human beings.

## RESULTS

Of the 217 eligible participants, 49 valid questionnaires (22.6%) were returned. Of these, nurses (n=5), doctors (n=5), dentists (n=5), nursing technicians (n=6), community health agents (n=25), oral health technicians (n=2) and unidentified professional category (n=1). The majority had more than one year of service in the unit (94%) and a workload of more than 30 hours (94%; Table 1).

**Table 1 - Professional profile of research participants, Porto Velho, East Zone, 2021 (n = 49)**

Variables	N	%
Professional category		
Community health agent	25	52
Nursing technician	6	12
Nurse	5	10
Physician	5	10
Dentist	5	10
Oral health technician	2	4
Blank/unanswered	1	2
Service time in the unit		
From 2 months to less than 1 year	3	6
From 1 year to less than 3 years	4	8
From 3 years to less than 6 years	12	24
From 6 years to less than 11 years	18	37
For 11 years or more	12	24
Workload (hours/week)		
33 - 40h weekly	3	6
25 - 32h weekly	4	8
17- 24h weekly	12	24

Source: The authors, 2024.

**Table 1 - Strengths and potential for improvement according to responses obtained by dimension assessed, Porto Velho, East Zone, 2021 (n=49)\***

Section	Patient safety dimension	Item	Escore
A	Patient Safety and Quality/Access to Care/Diagnostics and Testing/Equipment	“A patient was unable to receive an appointment within 48 hours for a serious/acute problem. “Laboratory or imaging tests were not performed when needed.” “Equipment required for care did not function properly or needed repair or replacement.”	82% 72% 70%
B	Exchange of information with other institutions	“Communication problems with the hospital.” “Communication problems with other health services.”	72% 68%
E	Support from managers/administrators/leaders	“They are not investing enough resources to improve the quality of care in this service.”	72%

\* Sections, dimensions and items with a score lower than 50% were not presented in this table

Among the strengths and potential for improvement, help from colleagues when someone is busy was the only strength (score above 75%; Table 1). The other items were assessed as having potential for improvement (scores above 50%).

Table 2 presents the questions with negative connotations, therefore, scores above 50% are considered weak points. Among the most fragile items, access to care was the most frequent.

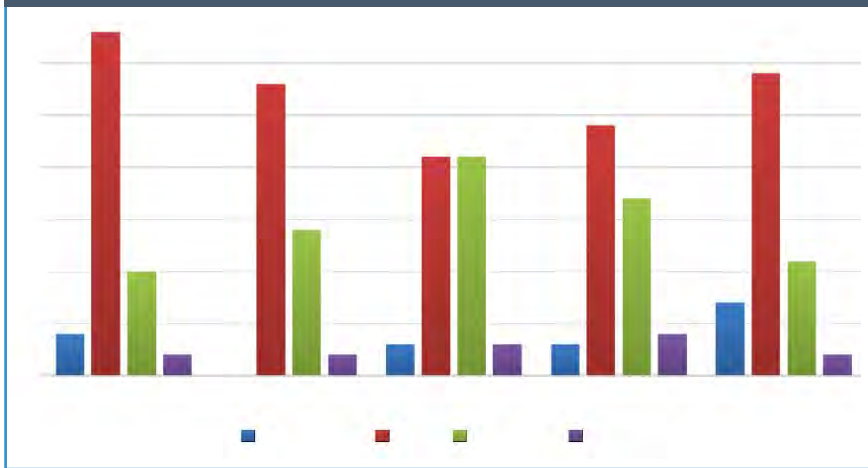
In the overall assessment of the quality of health care, most participants considered their health service to be “Good”, however, in the “Punctual” area, which considers that the service minimizes potentially harmful waits and delays, it was assessed as Good/Reasonable (Figure 1).

**Table 2 - Weak points for patient safety in PHC according to responses obtained by dimension evaluated, Porto Velho, East Zone, 2021**

Section	Patient safety dimension	Item	Escore
A	Patient Safety and Quality Access to Care Diagnostics and Testing Equipment	“A patient was unable to receive an appointment within 48 hours for a serious/acute problem.”	82%
		“Laboratory or imaging tests were not performed when needed.”	72%
		“Equipment required for care did not function properly or needed repair or replacement.”	70%
B	Exchange of information with other institutions	“Communication problems with the hospital.”	72%
		“Communication problems with other health services.”	68%
E	Support from managers/administrators/leaders	“They are not investing enough resources to improve the quality of care in this service.”	72%

Source: The authors, 2024.

**Figure 1 - Relative frequency of responses to “overall assessment of the quality of health care” from survey participants, Porto Velho, East Zone, 2021 (n = 49)\***



\* There were no responses for Excellent. Patient-centered: is sensitive to individual patient preferences, needs, and values; b. Effective: is based on scientific knowledge; c. Punctual: minimizes potentially harmful waits and delays; d. Efficient: ensures cost-effective care (avoids waste, overuse, and incorrect use of services); e. Impartial: provides the same quality of care to all individuals, regardless of gender, ethnicity, socioeconomic status, language, etc.

**DISCUSSION**

This study involved the participation of six different professional categories, which enabled a broad assessment of the safety culture. Thus, the greater the involvement of professional categories, the better for the institution/service, since the culture of an organization influences the manage-

ment style adopted and, consequently, determines organizational changes.<sup>(13)</sup>

The study in question showed that the majority of professionals (34%) had worked in the unit for a period of six years to less than 11 years. A study conducted in 2017 with PHC professionals in Southern Brazil found that 54.1% had worked between one and five years in the team, indicating a long-term relationship.<sup>(14)</sup>

Professionals who have worked in the health service for more than 10 years have the potential to promote planning, organization, knowledge of the assigned area, registered users and strengthening of the bond, contributing to a better consolidated safety culture.<sup>(15)</sup>

A partnership at work was found in this study (Section C). Maintaining a positive organizational culture, establishing an effective working partnership and a learning environment with mutual support among those involved is essential for knowledge sharing to prosper and positively influence the improvement of patient and health care.<sup>(16)</sup>

The “communication and monitoring” dimension was considered a strong point for patient safety culture in this study, be-

ing a factor that strengthens teamwork, supporting continuous improvement and joint work. 17 This aspect can be considered beneficial for patient safety as it also helps to prevent failures in the exchange of information between points in the care network and communication with the patient.<sup>(18)</sup>

There was a trend towards improvement in patient safety in relevant areas - the dimension of the health service (Section F), which reflects the team's willingness to modify its actions in order to avoid problems or even avoid the possibility of their recurrence. The organizational structure influences learning by being able to promote or not a safe environment with greater possibilities for changing the context of care.<sup>(19)</sup>

Brazil faces a major challenge in strengthening the culture of patient safety in health services, especially in PHC, where it is necessary to build a positive, non-punitive culture that promotes patient safety.<sup>(20)</sup>

In the units studied, six items presented a negative assessment of patient safety in PHC by participants. The negative patient safety culture presented mainly by CHAs, who were the largest professional category in this study, should be investigated. Since CHAs work for long periods in the community, outside the health unit spaces, they may represent the users' view of the health service, which in turn may suggest communication and integration failures among the health team, affecting the quality and safety of the care provided.<sup>(14)</sup>

However, when almost all of some domains analyzed receive negative scores regarding safety culture, reflection is necessary, as this finding highlights the precariousness of the health service in PHC, and is worrying, as it represents the possibility of implications for safe and quality care practice.<sup>(15)</sup>

The patient safety culture from the perspective of professionals in the basic health units in this study presented weaknesses in one item of the managerial support dimension.

“  
In research  
in the hospital  
environment  
21, it was found  
that the lack of  
management  
support is a factor  
that hinders the  
implementation  
of patient safety  
strategies in the  
care environment.  
”

Studies<sup>(14,18)</sup> with findings similar to these, demonstrated that health professionals express dissatisfaction with their managers because they need to improve and facilitate communication among the group, allocating resources correctly and valuing the professionals on their team.

Finally, the overall assessment of patient safety culture in this study was positive, because with regard to clinical processes, systems and problems with the potential to affect the user, most professionals classified the service as “Good” or “Very Good”.

The limitations of this study include the fact that the research was conducted during the COVID-19 pandemic, a period of visible work overload for PHC professionals; this may have influenced the low participation of professionals, even when completing an online questionnaire.

This measure was taken to collect data in view of the social distancing decrees in force during the data collection period. The sample size, which is small, does not allow us to determine trends or generalize the results, allowing us to consider the results of this study only for the population studied.

## CONCLUSION

The strengths or potential for improvement in the safety culture in the basic units in the East Zone of Porto Velho were related to Work with other professionals, Communication and monitoring, and Ability to change the work process when faced with problems. The weaknesses are found in the dimensions: Access to care, Exchange of information with other institutions, and Support from managers.

The general view of patient safety in the service by most professionals was classified as “good” or “very good”. However, considering all the dimensions analyzed, the negative evaluation of the patient safety culture in the PHC studied prevailed.

The quality and safety of user care result from the combination of several factors and these depend on an established safety culture. With these findings, it is possible to prospectively plan relevant actions to strengthen patient safety in the dimensions evaluated as weak for the PHC studied and other units with a similar profile.

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