



## CULTURE OF PATIENT SAFETY IN PRIMARY HEALTH CARE IN A LARGE MUNICIPALITY IN THE PERCEPTION OF WORKERS

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#### ABSTRACT

**Objective:** to characterize patient safety according to the perception of primary health care workers in a large city in Paraná.

**Method:** cross-sectional study, in which information was collected using the "Research on Patient Safety Culture for Primary Care" instrument, which was self-answered by health workers working in primary care, from April to June 2017. The Statistical Package for the Social Sciences program was used for data analysis. **Results:** it was found that as for the frequency of problems related to patient safety and quality of care, the "medical record/patient record being unavailable when needed" and "patient not getting an appointment within 48 hours was considered as a serious or acute problem". Regarding the support of managers/administrators/ leaders, the overall frequency of positive responses was only 38.4%. The section on global safety assessment showed the highest overall percentage of positive responses (79.0%). Workers in the southern region of the municipality under study had a worse assessment of the work process, communication, monitoring and manager support (45.5%, 61.6% and 29.3% of positive responses, respectively).

**Conclusion:** it is concluded that there is a need to strengthen the culture of patient safety at this level of care, strengthening and valuing the performance of all workers, with the intensification of permanent education and the use of soft technologies.

**DESCRIPTORS:** Patient safety. Primary health care. Organizational culture. Health personnel. Evaluation of processes and results.

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## CULTURA DE SEGURANÇA DO PACIENTE NA ATENÇÃO PRIMÁRIA À SAÚDE EM MUNICÍPIO DE GRANDE PORTE NA PERCEPÇÃO DE TRABALHADORES

#### RESUMO

**Objetivo:** caracterizar a segurança do paciente segundo a percepção dos trabalhadores da atenção primária à saúde em município de grande porte do Paraná.

**Método:** estudo de delineamento transversal, em que foram coletadas informações, por meio do instrumento "Pesquisa sobre Cultura de Segurança do Paciente para Atenção Primária", sendo este autorrespondido por trabalhadores de saúde atuantes na atenção primária, nos meses de abril a junho de 2017. Para análise de dados utilizou-se o programa *Statistical Package for the Social Sciences*.

**Resultados:** detectou-se que quanto à frequência de problemas relacionados à segurança do paciente e qualidade do cuidado, destacaram-se com maior frequência diária o "prontuário/registro do paciente estar indisponível quando necessário" e "paciente não conseguir uma consulta em até 48 horas considerado para um problema sério ou agudo". Sobre o apoio de gestores/administradores/líderes, a frequência geral de respostas positivas foi de apenas 38,4%. A seção sobre avaliação global de segurança apresentou o maior percentual geral de respostas positivas (79,0%). Trabalhadores atuantes na região sul do município em estudo apresentaram pior avaliação sobre o processo de trabalho, comunicação, acompanhamento e apoio do gestor (45,5%, 61,6% e 29,3% de respostas positivas, respectivamente).

**Conclusão:** conclui-se que há necessidade de fortalecer a cultura de segurança do paciente nesse nível de atenção, fortalecendo e valorizando a atuação de todos os trabalhadores, com a intensificação da educação permanente e do uso de tecnologias leves.

**DESCRITORES:** Segurança do paciente. Atenção primária à saúde. Cultura organizacional. Pessoal de saúde. Avaliação de processos e resultados.

# CULTURA DE LA SEGURIDAD DEL PACIENTE EN LA ATENCIÓN PRIMARIA DE SALUD EN UN GRAN MUNICIPIO EN LA PERCEPCIÓN DE LOS TRABAJADORES

#### RESUMEN

**Objetivo:** caracterizar la seguridad del paciente según la percepción de los trabajadores de atención primaria de salud en una gran ciudad de Paraná.

**Método:** estudio transversal, en el que se recopiló información, mediante el instrumento "Investigación en Cultura de Seguridad del Paciente en Atención Primaria", que fue auto-contestado por los trabajadores de salud interinos en atención primaria, de abril a junio de 2017. Para el análisis de datos, utilizamos el Paquete Estadístico para el programa de Ciencias Sociales.

**Resultados:** Se encontró que con respecto a la frecuencia de problemas relacionados con la seguridad del paciente y la calidad de la atención, se destacaron con mayor frecuencia la "historia clínica / historia del paciente que no está disponible cuando es necesario" y "el paciente no acude a una cita en 48 horas". por un problema grave o agudo". Con respecto al apoyo de gerentes / administradores / líderes, la frecuencia general de respuestas positivas fue solo del 38,4%. La sección sobre evaluación de la seguridad global mostró el porcentaje general más alto de respuestas positivas (79,0%). Los trabajadores que laboran en la región sur del municipio en estudio tuvieron una peor valoración del proceso de trabajo, comunicación, seguimiento y apoyo del gerente (45,5%, 61,6% y 29,3% de respuestas positivas, respectivamente).

**Conclusión:** Se concluye que existe la necesidad de fortalecer la cultura de seguridad del paciente en este nivel de atención, fortaleciendo y valorando el desempeño de todos los trabajadores, con la intensificación de la educación permanente y el uso de tecnologías ligeras.

**DESCRIPTORES:** Seguridad del paciente. Primeros auxilios. Cultura de la organización. Personal sanitario. Evaluación de procesos y resultados.



## INTRODUCTION

Problems related to patient safety care were highlighted in the 1999 report from the Institute of Medicine of the United States of America entitled "To err is human: building a safer health system (To Err is human: Building a safer health system)". This report highlights that <sup>1</sup> 44,000 to 98,000 patients died annually in the USA, due to harm suffered during hospital care, higher than deaths due to automobile accidents, breast cancer and acquired immunodeficiency syndrome.

Advances have been identified in hospital care the last two decades, among them are the institution of patient safety centers (PSC) - organizations that support hospital establishments in the formulation of initiatives that promote patient safety,<sup>2</sup> advances in the development of studies and expanding the discussion on the topic in this care area. From these advances achieved in hospital care, actions have been outlined which benefit the patient safety culture and prevent events that cause damage to health.<sup>3–5</sup> In primary health care (PHC), the subject of patient safety can still denote strangeness to workers, and its applicability and meaning are not so evident, despite this care setting being the user's gateway to the public health system which contains the majority of health actions.

Despite the few advances in patient safety in PHC, errors also occur at this level of care.<sup>6</sup> According to a study<sup>7</sup> with a population based in primary care, the majority of patients who suffered adverse events during care showed permanent harm to their health. This demonstrates that the adverse events that occur at this level of care also have the potential to seriously harm. Thus, it is of great importance that a safety culture is sustained in these levels of health care, understanding that the safety culture consists of the observation and execution of norms, traditions, values, beliefs regarding patient safety, which can directly influence professional practice, as well as determine the management of attitudes that may or may not promote safety during care.<sup>8–9</sup> Studies and national and international organizations consider that knowledge of the existence or not, construction, and measurement of the patient safety culture in a health institution are very important for establishing safe attitudes.<sup>10–11</sup>

A systematic review published in 2014 on patient safety in primary care identified 33 published articles, none of which originated from Brazilian research.<sup>12</sup> In subsequent years, a few studies in Brazil dealing with this subject were carried out. A study carried out in a coastal lowland of the State of Rio de Janeiro identified that the most frequent errors in PHC occurred in situations of administration, communication and health treatment.<sup>7</sup> Such result demonstrates the occurrence of errors that can be handled from the institution of a safety culture at that health care area. In a study carried out with 96 family health strategy professionals in the city of Florianópolis-SC, among them nurses, nursing technicians and community agents, the attitudes related to patient safety that were most significant for the safety culture were "team work culture", "working conditions", "health center communication and management".<sup>9</sup>

In this context, the importance of studies that address the perception of workers regarding patient safety in primary care is identified. Thus, the objective of this study is to characterize patient safety according to the perception of primary health care workers in a large city in the state of Paraná.



## METHOD

A descriptive cross-sectional study was carried out with PHC workers in a large city in the state of Paraná. The municipality is located in the northern region of the state and, according to an estimate by the Brazilian Institute of Geography and Statistics, in 2017, had around 550 thousand inhabitants.<sup>13</sup> During this period, the municipality had 54 Family Health Units (FHU), with 42 located in the urban area.

This article respected all the ethical precepts contained in CNS Resolution N°.466, of December 12, 2012. Each study participant was duly oriented as to the research objectives and, after reading the Free and Informed Consent Form and agreement to participate in the research, the professional was instructed to sign the form.

The study population was composed of all workers working in the Family Health Units (FHU) in the urban area of the municipality (n = 1,231), regardless of their role, but who had fixed and continuous work in the Health Unit and team, and a solid insertion in the work process of the unit. Workers who worked at the FHU with a 16-hour shift were excluded, as well as members of the Family Health Support Center (NASF). This criterion was used because it understands that the FHU workers mentioned above may present fragility in the professional-user and professional-professional bond, considering the punctual performance of on-duty workers or NASF workers and the flow and quantity of activities to be distinguished from the other FHU. In addition, the latter work in several FHUs, which leads to them having less time between users and staff. The study was characterized as a census of FHU workers, since all were included in the study, except for the predefined exclusion criteria.

Workers responsible for general services were also excluded, due to less contact they had with the health team, as they are, for the most part, outsourced workers, and have reduced contact with patients when compared to the other USF workers. These exclusions aimed to ensure that respondents were sufficiently familiar with the unit and the work process in which they are inserted, so that they could provide quality responses.<sup>14</sup>

Concerning data collection, a self-answered questionnaire was used, which, in addition to questions that addressed patient safety, contained information about the interviewee's sociodemographic characteristics. The instrument "Research on Patient Safety Culture for Primary Care" (MOSPSC - Medical Office Survey on Patient Safety Culture),<sup>15</sup> developed in 2007, in the United States of America, by the Agency for Health Care Research and Quality, AHRQ, was used and translated, adapted and validated for primary care in Brazil in 2015.<sup>16</sup> This instrument addresses situations that influence patient safety and workers' perceptions of its application in service practice. The aspects investigated in this instrument are related to patient safety and quality of care; exchange of information with other institutions; work process in the health service; communication and monitoring; support from service coordinators; characteristics of the health service in operation; and global assessment of patient safety.<sup>16</sup>

A pilot study was carried out in two FHUs in a medium-sized municipality located close to the municipality under study. These FHUs were selected because they have all the characteristics required for the target population, and the only impediment for them to compose the study sample was the fact that they did not belong to the researched municipality. The pilot study evaluated the applicability of the instrument and the strategy to be used during data collection.

The variables in this study were: sociodemographic and work (age, gender, education, patient safety training, other employment, working time at the FHU, weekly workload at the service, professional category and region where the FHU is located) ); variables on patient safety culture, contained in the instrument "Research on Patient Safety Culture for Primary Care", previously mentioned. As for the section of the instrument that relates to "support from managers/administrators/leaders", it was



explained to the research participants that managers/administrators/leaders were understood as the coordinating professionals of the FHU, who did not answer this section.

Data collection was carried out at the FHU facilities. Thus, the authors initially contacted the units' coordinators to agree on details of the research, by email or phone. Due to the unsuccessful attempts at individual contact with some coordinators, it was decided to participate in a meeting with all of them to inform them about the objective of the research and the data collection process. After this meeting, it was decided to carry out data collection without the prior scheduling of days or time. When it was not possible to apply the questionnaires on the same day to all workers, the researchers returned on later days. The instruments were applied by the first author and a trained nurse, who also actively participated in the pilot study.

There were five different types of approaches to workers during data collection, this variation was requested by the FHU coordinators, which was also necessary to ensure a higher response rate and operational feasibility of the research.

In the first type of approach, the questionnaires were delivered individually to the workers after explaining how to complete them and collected on the same day. In the second type, the questionnaires were delivered by the researchers to the participants, after individual explanation of completion, they were left in separate envelopes which were to be used to return the instruments, and the consent terms were filled out by the FHU coordinators who instructed the research participants to file them in the respective envelopes, with subsequent scheduling of a date for their collection. In the third type of collection, the questionnaires were explained and delivered to the research participants, in a team meeting, and collected on the same day. In the fourth type, the questionnaires were also delivered during a team meeting and the envelopes with the complete questionnaires were collected on a date scheduled with the coordinator.

In the fifth and last type of collection, the questionnaires were handed over to the coordinators, the filling instructions were made and they were asked to pass them on to the employees, who were responsible for delivering the questionnaires to the workers and directing them to file the questionnaires and consent forms in the respective envelopes, which were collected on a scheduled date. The coordinators were also asked about the number of employees on the day of the collection, which provided information regarding absentees, thus, two subsequent visits were made in order to search for these workers.

The information obtained through the data collection instruments was entered twice, by different researchers, in a spreadsheet created in the Excel for Windows program, version 2013. Both files were compared in the Epi Info program, version 3.5.4 for Windows, and the missing information was corrected after consulting the forms. Data processing and analysis were performed using the Statistical Package for the Social Sciences (SPSS), version 19.0, for Windows.

The description of the study population was carried out by presenting the frequency and central tendency measurements, according to the characteristic of the variable. For sections A and B (patient safety and quality of care; exchange of information with other institutions) in the MOSPSC instrument, the frequencies of responses given by the research participants were presented. For section A, the categories of analysis were: daily, at least once a week, once a month or less, and it has not happened in the last 12 months. Section B had the categories problems daily, problems at least once a week, problems once a month or less, and no problems in the last 12 months.

As for sections C to G (work process in the health service; communication and monitoring; support from managers/administrators/leaders; characteristics of the health service in operation; global assessment), the percentages of positive responses in each section were calculated and presented according to the municipality's FHU regions (north, south, center, east and west). It is important to mention that the FHU coordinators did not answer questions in section E. The following criteria were



established for the calculation of positive responses and classification of them, by section, in positive, neutral and negative:

- The sections of the questionnaire and the responses of the professional were classified as positive, which resulted in 75% or more positive responses;
- The sections of the questionnaire and the responses of the professional were classified as neutral, resulting in less than 75% and more than 50% of positive responses;
- Sections of the questionnaire and the responses of the professional were classified as negative, resulting in 50% or less of positive responses.

The following formula was used to calculate the percentage of positive responses <sup>14</sup>:

% of positive responses from the dimension = [number of positive responses to items in the dimension and total number of valid responses to items in the dimension (positive, neutral and negative, excluding missing data)] x 100

## RESULTS

Among the 1,231 employees assigned to the FHU, 100 did not participate in the study; 65 belonged to the NASF, 23 worked in general services, and 12 were not listed as being current FSU staff. Thus,1,131 health employees working in PHC became eligible for this research. Among those eligible, refusals accounted for 35.6%, unlocated workers accounted for 11.8% and employees on vacation or on leave accounted for 3.8%, totaling a sample of 550 participants (Figure 1).

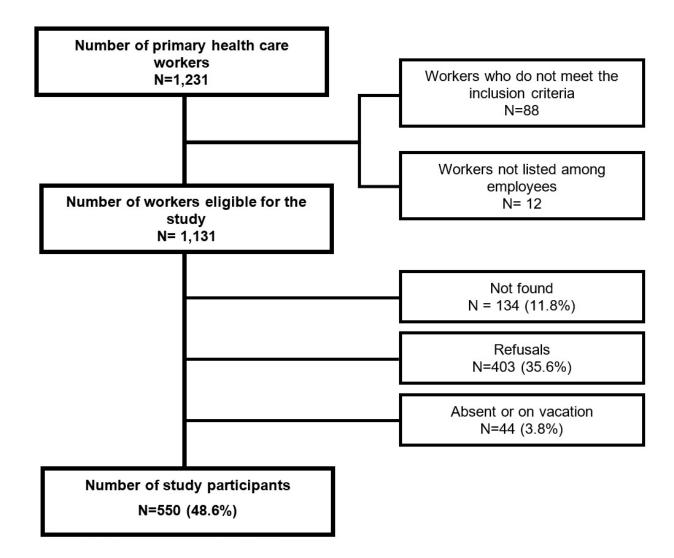
Regarding the response rates to the study by region of the municipality under study, there was a lower response rate (34.8%) in the West, in contrast to the East, which presented a response rate of 59.6%. In the Western region, there was a FHU that presented a response rate below 30.0%. The professionals who most adhered to the survey were nurses and community health workers (60.8% and 58.9%, respectively). Conversely, doctors and dental assistants had the lowest response rates (23.5% and 29.3%, respectively).

The majority of the participants were female (83.5%), aged between 26 and 50 years (73.3%), did not report undertaking a patient safety course (78.7%) and did not mention any other employment relationship (82, 9%). It should also be noted that around 70% worked for three years or more at the FSU and close to 60% worked 33 hours or more per week at the FSU. Concerning education and professional performance, the largest portion had completed higher education (48.2%) and held the positions of nursing technician and community agent (33.5% and 26.9%, respectively) (Table 1).

Regarding the position of nurse (n = 59), 77.7% of the total number of nurses worked in patient care and 22.2% worked as coordinators.

As for the frequency of problems related to patient safety and quality of care, the "medical record/ patient record being unavailable when necessary", "patient with a serious or acute problem not getting an appointment within 48 hours", stood out, "Exams not performed when needed" and "results of exams unavailable when needed", ranging from 9.5% to 15.5% for daily frequency. The other aspects evaluated showed frequencies of daily problems below 5.0% (Figure 2).





\* Response rate calculated from n = 1,131

**Figure 1** – Flowchart of exclusions/losses and response rate to the survey, Primary Health Care workers in a large city in Paraná, Brazil, 2017 (N = 1,131).

Variable	Ν	%
Sex⁺		
Female	459	83.5
Male	89	16.2
Age group <sup>†</sup>		
Up to 25 years	17	3.1
26-50 years	403	73.3
51-66 years	109	19.8
Schooling		
High school or less	225	40.9
Incomplete third level	60	10.9
Complete third level	265	48.2

**Table 1** – Distribution of health workers according to sociodemographic and workcharacteristics, in Primary Health Care in a large city in Paraná, Brazil, 2017. (N = 550).



Table 1 – Cont.						
Variable	Ν	%				
Patient safety training						
Yes	117	21.3				
No	433	78.7				
Another employment relationship <sup>‡</sup>						
Yes	88	16.0				
No	456	82.9				
Length of employment in FHU (in years)§						
< de 3 years	168	30.6				
From 3 to 6 years	127	23.1				
From 6 to at least 11 years	63	11.5				
11 years or more	166	30.2				
Weekly work load <sup>  </sup>						
24 hours or less	53	9.6				
From 25 – 32 hours	142	25.8				
From 33 – 40 hours	294	53.5				
41 hours or more	34	6.2				
Position <sup>¶</sup>						
Nursing technician	184	33.5				
Community health agent	148	26.9				
Nurse	59	10.7				
Dentist assistant	34	6.2				
Dental surgeon	31	5.6				
Administrative team member	29	5.2				
Doctor	28	5.1				
Other position	13	2.4				

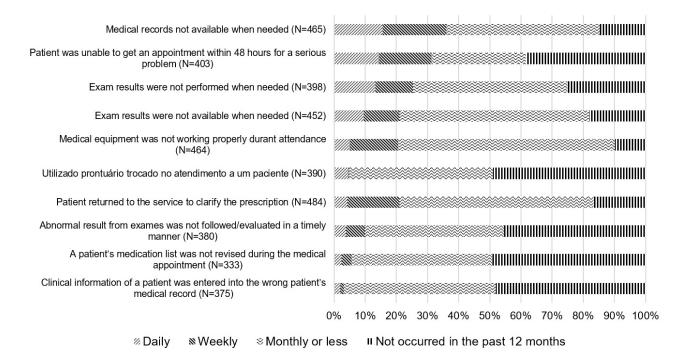
\* Fields with no response totaled 2 (0.4%); † Fields with no response totaled 21 (3.8%); ‡ Fields with no response totaled 6 (1.1%); § Fields with no response totaled 26 (4.7%); || Fields with no response totaled 27 (4.9%); ¶ Unanswered fields totaled 24 (4.4%).

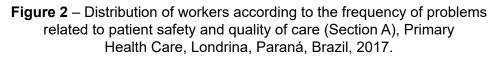
All services cited by workers have a daily frequency of problems related to the exchange of information with PHC below 7.6%, ranging from 4.2% for imaging centers and laboratories to 7.5% for hospitals. The weekly occurrence report is higher in centers and images and laboratories (8.7%) and other health services (8.8%) (Figure 3).

Among the sections evaluated regarding the percentage of positive responses, section E (Support from managers/administrators/leaders) had the worst assessment among workers, except FHU coordinators (38.4% - negative). Conversely, the overall assessment of patient safety (Section G) had the best evaluation (79.0%), the only one with a positive evaluation. The other sections (C, D and E) had a neutral evaluation (Table 2).

The analysis of the percentage of positive responses by region showed that the East and the South presented the worst evaluation in section C - work process in the health service (49.5% and 45.5% respectively, characterized as negative). Communication and monitoring (section D) presented a neutral evaluation by workers from all regions. Except for the central region (neutral assessment), the support of managers/administrators/leaders (section E) was negatively evaluated by workers from other regions of the municipality. In the section related to the characteristics of the health services in operation (section F), workers who worked in the central region were the only ones who presented a positive evaluation. As for the overall evaluation of the quality of care and patient safety (section G). all regions had a positive assessment (Table 2).







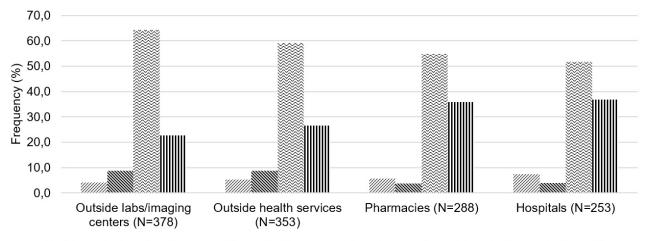


Figure 3 – Distribution of workers according to the frequency of problems related to the exchange of information with other institutions (Section B), Primary Health Care, Londrina, PR, Brazil, 2017.



Finnary Health Care, Londinia, FR, Brazil, 2017. (N – 550).							
Region	% positive responses						
	Section C*	Section D <sup>†</sup>	Section E <sup>‡</sup>	Section F§	Section G <sup>II</sup>		
North	54.3	65.0	38.3	71.5	77.2		
Central	52.8	67.7	53.7	80.7	83.1		
East	49.5	65.4	35.8	70.1	78.3		
West	52.2	66.1	39.4	74.4	75.9		
South	45.5	61.6	29.3	72.2	81.8		
Total	51.0	65.0	38.4	73.2	79.0		

**Table 2** – Distribution of positive responses about the patient safety culture (sections C to G) by region of the FHU in which they operate, Primary Health Care, Londrina, PR, Brazil, 2017. (N = 550).

\*\* Work process in the health service; † Communication and monitoring; ‡ Support from managers / administrators / leaders; § Acting health service; || Global assessment.

## DISCUSSION

Regarding the findings referring to section A (patient safety and quality of care), the most frequent situations were the "medical record / patient record being unavailable when necessary", "patient with a serious or acute problem not getting an appointment within 48 hours" and "tests not performed when necessary". It is suggested that employee work overload is possible causal factor of the situation mentioned by the respondents (unavailability of the medical record/patient record when necessary), which may be the fault of the professional in charge of the organization and availability of the medical records.<sup>17</sup> The fact that the patient's medical record being unavailable at the time of care, on a recurring basis, may contribute to a non-comprehensive patient care, as well as failure in the continuity of care and its results,<sup>18</sup> considering that the only information available to assistance will be those collected at the time of consultation.

It is noteworthy that the professional responsible for the organization and availability of medical records is not the only one responsible for this type of failure and that, in addition to the work overload of this professional, they can be important causes of these and other diverse errors in patient care, distraction, inexperience professional, lack of planning, communication failure, low workforce numbers, among others.<sup>19</sup>

With regard to the lack or delay of exams and the patient not having access to an appointment within 48 hours for a serious health complaint, other studies have shown results consistent with the present investigation.<sup>20–21</sup> The National Policy for Primary Health Care (PNAB), reformulated in 2017, defends linking municipalities, states and the federal district as support for the micro-regulation of consultations with specialties and the performance of exams requested in primary health care units,<sup>22</sup> aiming to strengthen the resolution of this level of care. Based on the PNAB, PHC finds problem-solving regrading exams, depending on the political and financial reality of the region.

Concerning the quality of care linked to the number of workers, the PNAB allows for the formation of primary health care teams, not including community health agents (CHA) as an integral category of the minimum composition of the workforce,<sup>22</sup> and thus, the possibility of the existence of units that do not have this professional category. The absence of CHAs in the health team jeopardizes the units' reachability with the residents of their areas of coverage, in addition to compromising monitoring and qualified service, based on the real living conditions of the assigned population. Therefore, this situation may reflect a lower service capacity and a reduction in the quality of care, causing the workers to become overworked.



With regard to information exchange problems with institutions, those that offer imaging and laboratory exams are among those that cause the most problems according to primary health care workers (daily or weekly). International studies confirm this finding,<sup>20–21</sup> showing that the problems of primary health care with laboratory tests and other tests are frequent. For good communication and cooperation between services, it is essential that soft technologies, those produced in the relationship between PHC actors, such as horizontal dialogue, understanding and empathy, are strengthened.<sup>23</sup> Even though they do not solve all problems with institutions that offer exams, they are free tools that are available to the entire PHC team and management. In addition, actions such as teamwork and multidisciplinary simulations, self-correction and structured communication protocols and standardization of patient information are strategies that improve communication within and between health organizations.<sup>24</sup>

The most negatively evaluated section (section E) was the one that addresses attitudes of the service manager/coordinator (only 38.4% of positive responses), in line with findings from international and national studies.<sup>6–9–23</sup> This situation serves as an alert for the need for FHU coordinators to get closer to other workers and for their participation in work processes, aiming for improvements in health care.

Thus, it is important to plan strategies based on scientific theories,<sup>25–27</sup> but that the practical experiences of workers are not ignored,<sup>28</sup> which prove to be an important tool for the prevention of errors and give meaning to health actions. That said, it is important that there is sufficient horizontality and openness in the interprofessional relationship, starting with the coordinator's relationship with the other workers.<sup>23</sup> The openness to discuss cases horizontally and collectively, through the practice of unique therapeutic projects (PTS), is a powerful tool for identifying problems, <sup>28</sup> in addition to strengthening the bond between team workers and the coordinator. The PTS are actions which are linked between several members of the health team for an individual or collective subject, derived from discussions and/or matrix support, generally intended for complex situations.<sup>29</sup>

Among the positive findings, the responses to sections F (73.2% positive responses) and G (79.0% positive responses), which concern aspects of the health service in action and the overall evaluation of patient safety health stand out. Thus, it is understood, that the team's attitudes related to the assessment and adequacy of the work process so that there is quality in care, the prevention of errors and the general safety assessment are positively perceived by the PHC workers themselves. These positive aspects reinforce that, despite the challenges found in the implementation of the patient safety culture, there is a degree of worker satisfaction with primary health care. However, the results may also suggest that workers have difficulty understanding patient safety and identifying which problems related to the topic occur, presenting a positive assessment regarding patient service and safety.<sup>25–26</sup>

In general, it was noticed that the central region was the one that presented the best evaluation of the safety culture (highest percentage of positive responses in all analyzed sections). Conversely, the southern region had worse scores for positive responses in sections C, D and E. The fact that workers working in the southern region had a lower percentage of positive responses in three of the five sections analyzed (support from managers/leaders/administrators), communication and monitoring, and work process) presupposes possible work overload. It is believed that, due to the large number of populous neighborhoods in this region,<sup>27</sup> there is a social vulnerability, since there is a tendency for large group of people to live in part of its extension, which culminates in a greater demand from FHU workers and, sometimes these employees can be overworked, thus leading to a more flawed work process and impaired interpersonal relationships.<sup>26</sup>

FHUs workers located in the central region of the city under study showed the highest percentages of positive responses in sections D, E, F and G (67.7%; 53.7%; 80.7% and 83.1%,



respectively). Contrary to the other regions of the municipality, the central region has neighborhoods that include a large part of the number of commercial establishments, making it the region with the least populated neighborhoods,<sup>27–30</sup> and, in addition, it is suggested that a considerable portion of the region's residents have health insurance plans, which reduces the demand for FHUs. These facts reduce the burden on workers, facilitating the management of the population's health situations and generating a satisfactory work and communication process.

This study highlighted the collection of primary data which is a reliable source for the development of problem-solving strategies that are consistent with the current and real need for patient safety in the PHC of the studied municipality; and because it is one of the first national studies that address the safety culture in this scenario. In addition, this study was carried out with several professional categories, which is not common in most studies.

Limitations of this study include the achieved response rate, especially for some functions (dental assistant and doctor) and for the western region of the municipality. In addition, it was identified that in some sections there were questions that some professionals did not answer, which may have contributed to the internal validity of the study. Furthermore, as the instrument is self-administered, the interviewees may have presented divergences in the interpretation of the questions, which may contribute to both the increase in the rate of non-valid responses and to responses that did not represent what the professional understood about the researched subject.

## CONCLUSION

The practice of patient safety in PHC has been identified as a challenge in the Brazilian context. For this challenge, some strategies are proposed to for this challenge and promote the construction of a positive safety culture, such as the insertion and involvement of patients and family in planning strategies for the promotion and evaluation of patient safety; the implementation of information technologies in the care routine, as well as electronic medical records, follow-up bulletins; increased use of soft technologies; and the intensification of permanent health education.

For a joint construction of the safety culture, it is understood that there must be an understanding that the error happens due to a flawed system and a work process that does not present efficient barriers to avoid it. It is important that workers are co-responsible for diagnosing errors and planning strategies in the work routine, so that they feel included in the work process as a whole and not only in the implementation and practice of safer actions and, thus, see themselves as an important part of building a patient safety culture, and one that is meaningful to them.

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## NOTES

## **ORIGIN OF THE ARTICLE**

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## **CONTRIBUTION OF AUTHORITY**

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Discussion of results: Macedo LL, Haddad MCFL, Silva AMR, Girotto E.
Writing and / or critical review of content: Macedo LL, Haddad MCFL, Silva AMR, Girotto E.
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## **CONFLICT OF INTERESTS**

There is no conflict of interest.

## HISTORICAL

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