

Patient safety culture in Primary Health Care

Cultura de segurança do paciente na Atenção Primária à Saúde

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ABSTRACT

Objective: to evaluate the patient safety culture in a primary care health unit. **Methods:** cross-sectional study conducted with 51 professionals linked to Primary Health Care. Data were collected using the self-administered instrument Medical Office Survey on Patient Safety Culture, translated, adapted and validated for use in Brazil. Descriptive statistical analysis was performed. Nurses, physicians, Community Health Agents, among other professionals participated. **Results:** the dimensions of the patient safety culture in Primary Health Care indicated opportunities for improvement or weaknesses in the service. The general assessment of patient safety and the global assessment of the quality of care provided in Primary Health Care were appointed as good or fair. **Conclusion:** the safety culture in Primary Care did not identify strong dimensions; there were problems with equipment, performance and availability of test results and exchange of information with imaging centers/laboratories in the care network.

Descriptors: Primary Health Care; Organizational Culture; Safety Management; Patient Safety.

RESUMO

Objetivo: avaliar a cultura de segurança do paciente em uma unidade de saúde da Atenção Primária. **Métodos:** estudo transversal, conduzido com 51 profissionais vinculados à Atenção Primária à Saúde. Dados foram coletados utilizando o instrumento autoaplicável *Medical Office Survey on Patient Safety Culture*, traduzido, adaptado e validado para uso no Brasil. Foi realizada análise estatística descritiva. Participaram enfermeiros, médicos, Agentes Comunitários de Saúde, dentre outros profissionais. **Resultados:** as dimensões da cultura de segurança do paciente na Atenção Primária à Saúde apontaram oportunidades de melhoria ou fragilidades do serviço. A avaliação geral em segurança do paciente e a avaliação global da qualidade do cuidado prestado na Atenção Primária à Saúde foram apontados como boa ou razoável. **Conclusão:** a cultura de segurança na Atenção Primária não identificou dimensões fortes, verificaram-se problemas com equipamentos, realização e disponibilidade dos resultados de exames e troca de informações com centros de imagem/laboratórios da rede de atenção.

Descritores: Atenção Primária à Saúde; Cultura Organizacional; Gestão da Segurança; Segurança do Paciente.

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Introduction

Patient safety consists of a set of organized actions that influence cultures, processes, behaviors, technologies and health care environments in order to reduce health care risks, the occurrence of avoidable damage and its impact on the patient, professional and organization. Safe primary care has been considered a global priority, and the adoption of strategies by the World Health Organization is encouraged⁽¹⁾. The concern with safety in Primary Health Care permeates care practices, especially because the user is not under the supervision of professionals at all times, as occurs when he is outside the health unit, which makes it difficult to identify incidents⁽²⁾.

In France, in 2013, incidents arising from care provided in Primary Health Care occurred, on average, once every two days, 2.0% of which were associated with the definitive possibility of harm and its occurrence was three times more often related to the management of assistance care than to the competence of professionals⁽³⁾. In England, 58.0% of reported incidents resulted in harm to the patient, of which 17.0% were serious, resulting in hospital admission, permanent injury or death⁽⁴⁾. In low- or middle-income countries, incidents can reach between 25.0% and 40.0% of the primary care provided, with 80.0% of these being considered preventable⁽⁵⁾. In Brazil, in 2018, the analysis of 105 notifications found damage in 37% of cases, including two deaths⁽⁶⁾.

The occurrence of incidents is directly related to the clinical process, medications, treatment, diagnosis and patient care management⁽³⁾. In Brazil, a study pointed out as predominant incidents those associated with errors in treatment, handling of medical records, communication, records and scheduling⁽⁶⁾. In order to improve this scenario globally and promote improvements in care delivery, there is growing recognition of the need to develop a culture of patient safety. A strong safety culture is fundamental to any

sustainable effort towards the safety of care; although policies and legislative interventions can provide an enabling environment for its development; the safety culture needs to infiltrate health attitudes, beliefs, values, skills and practices⁽¹⁾.

Given the numerous barriers and multiple challenges that need to be faced to improve the occurrence of incidents in primary care⁽⁷⁾, the investigation of the safety culture can help to recognize systemic failures and foster changes in the work process. In Brazil, the strengthening of culture in health care settings is a theme of the National Patient Safety Program, which has promoted the mobilization of health organizations and professionals and influenced the reduction of deaths related to unsafe care⁽⁸⁾.

In light of the above and considering that incidents that occur in Primary Health Care also have the potential for serious damage, this study is justified by enabling the survey of indicators related to the strengths and weaknesses of the work process associated with the safety culture of the patient that can subsidize the installation of the process of improvement of the care environment, as well as consolidate the knowledge on the subject, still considered a scientific gap. This study, therefore, aimed to evaluate the patient safety culture in a primary care health unit.

Methods

This is a cross-sectional study, developed in a primary care health unit, located in the Eastern Region of the Federal District, Brazil. The study population consisted of 90 professionals linked to six family health teams, a parameterized team and a Family Health Support Center, nine family and community doctors, one pediatrician, nine nurses, 23 nursing technicians, five dentists, five dental hygiene technicians, 25 Community Health Agents, three administrative technicians, three professionals linked to management activities, a pharmacist, a speech therapist, a

nutritionist, a social worker, an occupational therapist and two operational service assistants of clinical and laboratory pathology.

As an inclusion criterion, the length of service for more than 30 days was considered. Professionals who were on vacation or leave for any reason during the period of data collection were excluded, as well as those who were not available to answer the instrument after two attempts. There were no losses related to incomplete or incorrect filling of the instrument; there were no refusals to invite to participate in the research; 38 professionals were on leave or vacation during the data collection period; a professional was excluded from the service for less than 30 days. Thus, the final study population consisted of 51 professionals from the health unit.

The instrument Survey on Patient Safety Culture for Primary Care was used, a translated version of the Medical Office Survey on Patient Safety Culture, adapted for use in Brazil⁽⁹⁾. The instrument validation reached a general content validity index of 0.85 and a Cronbach's alpha coefficient of 0.95. In this study, the alpha obtained was 0.90.

It is a self-applicable instrument, composed of nine sections. Seven sections include 52 items, formatted in a Likert type scale; A - List of questions about patient safety and quality; B - Exchange of information with other institutions; C - Working in this health service; D - Communication and monitoring; E - Support from managers/administrators/leaders; F - Your health service; G - Overall assessment. Among these items, 38 are grouped and form 10 dimensions of the patient safety culture: Pace and pressure at work; Team work; Team training; Work process and standardization; Open communication; Communication about the error; Follow-up of patient care; organizational learning; Support from managers in patient safety; General perception of patient safety and quality. The other items include questions about problems of exchanging information with other services, access

to health care, assessment of five areas of quality of health care (patient-centered, effective, timely, efficient and equitable) and general assessment of the safety of the patient. Section H contains multiple-choice questions about the professional profile, and Section I is composed of a non-mandatory, essay question, on patient safety and quality of care. For the purpose of characterizing the professionals, questions about age and gender were added to the instrument.

The use of the instrument adapted and validated for Brazil was authorized by the authors. Data collection took place between December 2017 and January 2018, in the morning and afternoon, in the participants' work environment. The instruments were answered individually, in a private venue, with an average time of 30 minutes to complete.

Data were entered into a Microsoft Excel spreadsheet with double checking and analyzed using the Statistical Package for Social Sciences software, version 24.0. Descriptive statistical analysis was performed, calculating the absolute and relative frequency for each response of the evaluated items. The responses 'totally agree/agree' or 'often/always' were considered positive for the positively formulated items, and 'totally disagree/disagree' or 'never/rarely' for the negatively formulated items. The answers 'once or twice in the last 12 months' and 'did not happen in the last 12 months', related to the items that assess the frequency of situations in the Primary Health Care environment, were also considered positive, according to the Medical Office Survey on Patient Safety Culture. For the dimensions of the safety culture, the percentages of positive, negative and neutral responses were calculated. The percentage of positive responses for each dimension was obtained through the average of the percentage of positive responses for the items that make up the respective dimension. A percentage equal to or above 75% was considered a strong dimension. A percentage equal to or below 50% was considered a weak dimension/opportunity for improvement.

This study followed the Resolution of the National Health Council 466/12 and was approved by the Research Ethics Committee of the Faculty of Health Sciences of the University of Brasília, Certificate of Presentation of Ethical Appreciation No. 73448117.5.0000.0030, Opinion No. 2,411,870/2017. All participants signed the Informed Consent Form.

Results

Fifty-one primary health care professionals participated in the study, 12 (23.5%) nursing technicians, 11 (21.6%) Community Health Agents, eight (15.7%) nurses, seven (13.7%) physicians, in addition to six (11.8%) university education professionals (dentist, occupational therapist, nutritionist, social worker), five (9.8%) technical level professionals (dental hygiene technicians and administrative technicians) and two (3.9%) operational assistants of clinical and laboratory pathology services. Female professionals were the majority of the components, with 41 (80.4%) participants. The age ranged from 24 to 54 years, with an average of 38.8 (+ 6.97 years), with a predominance of the age group from 31 to 40 years for 25 (49.0%) professionals. The time working in the service ranged from less than one year to nine years, with an average of 6.1 (+2.8 years). The weekly workload was 40 hours for all professionals.

The evaluation of the percentages of positive answers did not reveal strong dimensions of the safety culture in the investigated environment. As opportunities for improvement or weaknesses in the service, the dimensions related to the pace and pressure at work (15.4%), Team training (27.0%), Work process and standardization (33.0%) stood out, Open communication (47.6%), Communication about the error (40.8%), Support from managers in patient safety (40.2%) and with the General perception of pa-

tient safety and quality (49.2%). Table 1 shows the breakdown of the percentage of positive responses for each dimension related to the safety culture in Primary Health Care.

Table 1 – Perception of health unit professionals regarding the dimensions of the patient safety culture according to the Medical Office Survey on Patient Safety Culture. Brasília, DF, Brazil, 2018. (n=51)

Dimension	Nega- tives	Neu- tral	Posi- tives	PPR* (%)
Team work	24	38	142	69.6
Pace and pressure at work	152	18	31	15.4 [†]
Team training	74	34	40	27.0 [†]
Work process and standardization	88	44	65	33.0 [†]
Open communication	23	84	97	47.6 [†]
Follow-up of patient care	33	36	112	61.9
Communication about the error	31	78	75	40.8 [†]
Support from managers in patient safety	66	44	74	40.2 [†]
Organizational learning	33	33	80	54.8
General perception of patient safety and quality	49	48	94	49.2 [†]

*PPR: Percentage of positive responses, according to the Medical Office Survey on Patient Safety Culture; [†]Weak dimensions or opportunities for improvement

Table 2 shows the perception of professionals regarding the quality of care, patient safety and the exchange of information in Primary Health Care, showing the frequency with which situations occur that can expose patients to potential risks.

The general assessment of patient safety was appointed as good or reasonable for 80.4% of the professionals, as shown in Table 3. There was also a predominance of good/reasonable assessment of the areas of care in Primary Health Care.

Table 2 – Frequency of situations that occurred in the last 12 months related to patient safety, quality and exchange of information. Brasília, DF, Brazil, 2018. (n=51)

Patient safety assessment, quality of care and information exchange	Daily	Once/week	Once/month	1, 2 several times/year *
	n (%)	n (%)	n (%)	n (%)
Patient safety and quality of care issues				
A patient did not get an appointment within 48 hours for a serious/acute problem	1 (2.4)	6 (14.6)	2 (4.9)	32 (78.1)
In the care of one patient, another patient's medical record/record was used	-	-	-	32 (100.0)
A patient's medical record/record was not available when needed	1 (2.3)	5 (11.4)	5 (11.4)	33 (75.0)
One patient's clinical information was filed, digitized or entered into another patient's medical record/record	-	-	2 (5.9)	32 (94.1)
Equipment needed for service did not function properly or needed repair or replacement	6 (13.0)	8 (17.4)	6 (13.0)	26 (56.5)
The patient returned to the health unit to clarify or correct a prescription	-	3 (8.1)	9 (24.3)	25 (67.6)
Medications used by a patient were not reviewed by the health professional during their consultation	-	-	3 (13.0)	20 (87.0)
Laboratory or imaging tests were not performed when necessary	13(31.0)	1 (2.4)	5 (11.9)	23 (54.8)
Laboratory/imaging test results were not available when needed	7 (16.7)	9 (21.4)	4 (9.5)	22 (52.4)
An abnormal result of a laboratory or imaging test was not followed up/evaluated in a timely manner	-	2 (6.5)	6 (19.4)	23 (74.2)
Problems in exchanging complete, accurate and timely information in relation to other services				
Imaging centers/laboratories of the Health Care Network?	11(33.3)	7 (21.2)	2 (6.1)	13 (39.4)
Other health services/physicians in the Health Care Network?	7 (21.2)	3 (9.1)	4 (12.1)	19 (57.6)
Pharmacies?	3 (10.3)	6 (20.7)	4 (13.8)	16 (55.2)
Hospitals?	7 (20.0)	5 (14.3)	2 (5.7)	21 (60.0)

*Positive answers, according to the Medical Office Survey on Patient Safety Culture instrument

Table 3 – Perception of health unit professionals regarding the global assessment of the quality of care. Brasília, DF, Brazil, 2018. (n=51)

Global assessment of quality of care and general assessment in relation to patient safety	Bad	Fair/good	Very good	Excellent
	n (%)	n (%)	n (%)	n (%)
Patient-centered care: is sensitive to patients' individual preferences, needs and values	3 (5.9)	40 (78.4)	7 (13.7)	1 (2.0)
Effective care: is based on scientific knowledge	-	39 (76.5)	10 (19.6)	2 (3.9)
Punctual care: minimizes potentially harmful waits and delays	5 (9.8)	40 (78.4)	6 (11.8)	-
Efficient care: ensures cost-effective care (avoids waste, excessive and incorrect use of services)	2 (3.9)	41 (80.4)	8 (15.7)	-
Impartial care: provides the same quality of care to all individuals, regardless of gender, ethnicity, socioeconomic status, language, etc.	2 (3.9)	31 (60.7)	11 (21.6)	7 (13.7)
Overall patient safety assessment: classification of clinical systems and processes that this service uses to prevent, identify and correct problems that have the potential to affect patients	3 (5.9)	41 (80.4)	7 (13.7)	-

Discussion

The study limitations are related to the data collection format, which depends on the interest and availability of the health professional to participate. Other limitations are related to the data source used to assess the safety culture that considered the self-report of the professional involved, without incorporating the analysis of records, observation of care practice, patient perception, among other aspects.

Despite reflecting a situational diagnosis, the study brings contributions to professional practice, leading to a process of reflection that can change the organizational environment based on evidence-based decision making. In the context of science, the study results, compared with national and international literature, reinforce that the safety culture process is dynamic, dependent on the interaction among professionals, their peers, leaders and the patient, as well as the interaction among these actors with the structure of the service and the work process. This reality implies the need for systematized assessments, in order to continuously raise the needs for improvement, towards obtaining increasingly safer primary care.

In this study, teamwork, organizational learning, and patient care follow-up received higher scores. This result corroborates the literature, when it points out that health professionals perceive a strong sense of teamwork within the units, report organizational learning to improve work processes; however, they continue to identify communication problems between the team, punitive responses to errors, problems in the frequency of reporting events and errors when transferring patients to other levels of health care⁽¹⁰⁾.

The dimensions of the safety culture reflect organizational maturity in relation to the commitment to safe primary care. In Brazil, among the best evaluated dimensions are teamwork and patient follow-up⁽¹¹⁻¹²⁾. In the interior of the state of São Paulo, the dimensions of teamwork and exchange of information with other institutions were verified as strengths,

with 79% of positive responses, monitoring of patient care with 80% and patient safety and quality problems with 83%, while leadership support was identified as a weak dimension with 47%⁽¹¹⁾. However, there are still scenarios in which the negative assessment prevails⁽¹²⁾, as occurred in the present study.

Therefore, it is necessary to search for strategies that help strengthen the culture of safety in the practice of primary care, to the point of modifying the way of thinking about care and promoting attitudinal change⁽¹⁾. Educational interventions have been shown to be effective for the significant increase in incident reporting⁽¹³⁾. In this case, therefore, the promotion of surveillance actions in patient safety must be a commitment of the leaders, in order to expand the report of incidents and qualify the information offered.

Other recommendations to improve this scenario are related to the implementation of protocols, professional qualification, improvement in communication and care resoluteness⁽¹²⁾. It is noteworthy that the patient safety culture may differ between professional categories and are commonly lower among physicians and Community Health Agents⁽¹⁴⁾. Thus, the creation of an organizational learning environment, in order to enable the transfer of knowledge related to good safety practices during the provision of care is relevant to leverage safe primary care.

In this study, nurses, physicians, Community Health Agents participated, among other professionals with diversified training and professional experience. The literature indicates that length of service⁽¹¹⁻¹²⁾, working in the Family Health Strategy⁽¹²⁾ and professional category⁽¹¹⁾ are factors that are significantly related to the perception of the safety culture⁽¹²⁾. Thus, recognizing existing talents in the organization and encouraging the application of each person's knowledge in favor of improving work processes can be important actions in organizational support for learning.

Respect among colleagues, professional autonomy to apply new ideas related to patient safety, valuing and encouraging managers to use and apply new skills, plus the issue of understanding that there are

possible risks and being recognized when applying new skills related to patient safety at work are actions perceived as organizational support and that favor the change in the practice environment⁽¹⁵⁾. However, resistance to change, excessive work in the service routine, receiving negative criticism when an error occurs, and a feeling of threat when applying new skills are still observed. Such factors hinder the organizational learning process⁽¹⁵⁾ and impede the evolution of the safety management process.

Universal access is an important challenge for the Unified Health System, due to the increased demand for actions and services, as the organization of the network, in a regionalized and hierarchical manner, requires the formulation and management of care flows⁽¹⁶⁾. It should be noted that the coordination of these flows can be favored by the use of digital technologies, such as regulatory tools and reference and counter-referral instruments that allow the management of processes and flows, in addition to access to patient health information in different services⁽¹⁷⁾. Such organization and coordination contribute to patient safety, as they provide access to healthcare, as they provide the exchange of information between services, access to exams and their results.

Despite the problems raised with the study, the overall safety assessment was identified as positive for health professionals. Recognizing the institution's positive points can motivate the engagement of professionals in search of best practices. Engaging professionals in patient safety actions maintains a statistically significant relationship with a culture of positive safety and the reduction of errors⁽¹⁸⁾. It is important to highlight that the team dynamic influences the coordination of care and the perceptions of patient safety, which suggests that making care safer implies paying more attention to how collaborative work between health professionals takes place in view of the need for coordination of care⁽¹⁹⁾.

The joint construction of the safety culture depends on the understanding that the error happens due to a failure in the health system and a work pro-

cess with inefficient barriers. Health professionals need to be co-responsible for diagnosing such failures and planning efficient strategies, and should be included in the proactive management of care risks and not only in the practical implementation of safety actions⁽²⁰⁾. Therefore, the results show the need to prepare health professionals, support teams and their leaders to manage problems related to care and to engage everyone in the process of (re)thinking professional practices in order to strengthen safe primary care.

Conclusion

The evaluation of the patient safety culture in Primary Health Care did not identify strong dimensions. There were frequent problems with the operation of equipment necessary for patient care, performance and availability of laboratory or imaging test results. Problems related to the exchange of complete, accurate and timely information with imaging centers/laboratories of the Health Care Network were found. However, the general assessment in relation to patient safety and the global assessment of the quality of care in Primary Care to Health were identified as good or reasonable.

Collaborations

Bohrer JKL contributed to the project design, data analysis and interpretation, and article writing. Vasconcelos ACL and Teixeira CC collaborated for the analysis and interpretation of data and writing of the article. Bezerra ALQ, Andrade J and Santos PHF collaborated for the analysis and interpretation of data and relevant critical review of the intellectual content. Paranaguá TTB contributed to the project design, data analysis and interpretation, article writing and relevant critical review of the intellectual content. All authors contributed to the final approval of the version to be published.

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