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Safety attributes in primary care: understanding the needs of patients, health professionals, and managers

P.F. de Vasconcelos [a,*], C.H.A. de Freitas [b], M.S.B. Jorge [b], R.E.F. de Carvalho [b], V.E.C. de Sousa Freire [a], M.F.M. de Araújo [a], M.I.F. de Aguiar [c], G.Y.M. de Oliveira [b], S.J.S. Bezerra dos Anjos [b], A.C.S. Oliveira [d]

[a] Health Sciences Institute, University for International Integration of the Afro-Brazilian Lusophony, Acarape, CE, Brazil
[b] Nursing Department, Ceara State University, Fortaleza, CE, Brazil
[c] Nursing Department, Federal University of Ceara, Fortaleza, CE, Brazil
[d] Nursing Department, Universidad Católica San Antonio de Murcia, Murcia, Spain

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ABSTRACT

Objectives: The aims of this study were (1) to identify attributes for patient safety at a primary healthcare level and (2) to analyze conceptions of patients, professionals, and managers about how these attributes are being addressed.
Study design: This was a qualitative study.
Methods: Participants were recruited from three primary care settings in Brazil. A total of 37 subjects (four physicians, three nurses, three dentists, three managers, five community assistants, and 19 patients) participated on interviews about their perceptions of safety attributes at the primary care settings involved in the study. Some of these participants attended a focus group meeting. A thematic categorical analysis was carried out to interpret the interviews.
Results: The main attributes for patient safety were valued by the participants. However, barriers such as discontinuity of care, interruptions during consultations, breakdowns in the communication, and ineffective teamwork were reported as frequent sources of patient safety issues. Reports of patients left unattended for excessive time because of the lack of accurate information and disruptions that took up to 35 min show that there is still a long way to go for primary care to be safe and effective in the study settings.
Conclusions: It is necessary that the strategies meet the patient safety needs more effectively and efficiently. Further research is needed to understand the complex nature of the problems that affect patient safety in these settings so that appropriate decisions can be made.

* *Corresponding author*. Health Sciences Institute, University of International Integration of the Afro-Brazilian Lusofony, CE 060 Road, km 51, Acarape, CE, 62785-000, Brazil. Tel.: +55 85 33731593.
E-mail address: patriciafreire@unilab.edu.br (P.F. de Vasconcelos).
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Introduction

Over the past few years, patient safety has increased considerably as a field of research and practice, expanding the perspectives on health care. Patient safety influences and integrates various fields of knowledge, with the main aim of studying the causes of patient safety incidents and their prevention.[1]

In Brazil, as well as in developed countries such as Australia, New Zealand, and the United Kingdom, the primary care services are at the heart of health care. The primary care settings are recognized by the Brazilians as the main entry point to the health system. The services provided at the primary care settings directly impact the Brazilian families' well-being and their use of other resources. Consequently, unsafe or ineffective primary care may increase morbidity and preventable mortality or may lead to unnecessary use of scarce hospital resources.

There is still a lack of studies on patient safety in the primary care settings.[2,3] Little is known about the possible risks that people face in the primary care settings, especially in developing and third world countries where a high proportion of health care takes place in primary care settings.[4]

The existing gaps in patient safety at the primary care settings are mainly related to the false perception that the primary care assistance is less susceptible to medication errors and other incidents than advanced care. However, although incidents in the primary care settings tend to be less severe than within hospitals, they can affect patients at a higher magnitude because they are usually repetitive errors and expose a greater number of people.[5] Because of that, the World Health Organization (WHO) has shown interest in strategies to improve safety at primary care settings, such as the creation of the Safer Primary Care Expert Working Group.[6]

People who work or depend on primary care services day by day often report safety issues or errors. This can be particularly worrisome in Brazil because of the way health care is organized in this country. Brazil's Family Health Strategy (FHS) is a robust approach to provide primary health care for specific populations by deploying interdisciplinary healthcare teams. A 'family health team' is composed by one physician, one family nurse, one nurse technician, and four to five community assistants called '*agentes de saude*.' Besides that, each Brazilian primary care center has at least one dentist working at scheduled times. The teams are organized geographically, being responsible for about 77.6% of all access that Brazilians have to the health system.[7] Thus, it is safe to state that most of the health care provided in Brazil is done outside the hospitals. Therefore, the interest in patient safety at the primary care settings has grown because of the great flow of people at this component of the country's health system.

The incidence rate of patient safety events in Brazilian primary care settings was estimated at 1.11% (125 cases of 11,233).[8] However, it is believed that such incidents are underreported and that the incidence of such events must be higher than this value. The study also shows that 31 (25%) patients had permanent damage, 27 (21%) presented moderate damage, and 18 (15%) suffered minimal damage. In Brazil, as in other countries,[9,10] communication is the major contributory factor for patient safety events in primary care settings.

We could not fail to mention that the production of care at the primary care settings depends on the interdisciplinary team's combined efforts. The relations between health workers (and their specific care competences) are crucial to intervene at a health-disease production level.[11]

In the attempt to provide safe care at a primary health care level, the concept of 'clinical governance' emerged. This term is defined as a framework through which organizations are accountable for the continuous improvement of the quality of their services and safeguarding high standards of care or, in brief, as a set of management technologies intended to provide quality health care.[12]

In Brazil, clinical governance is particularly important because the Brazilian health system is 'universal' (it provides medical care and financial protection to all the citizens) but do not always contemplate the continuous dimension of the country. Often, services are not provided sufficiently to meet the demands of the population. Thus, the clinical governance becomes a tool to reduce inequities because the services are targeted to those who need them the most. For example, when a person is assessed and classified as having high-risk hypertension, it is acknowledged that this individual will need more supplies/efforts from the health system and from the multiprofessional team than someone who has low-risk hypertension. In this way, it is possible to provide individualized care and reduce the discrepancies. In addition, the clinical governance 'forces' the professionals to understand a health condition deeply, preventing errors due to insufficient clinical data.

In this way, it is understood that the clinical governance enables a safe care and, to do so, attributes such as communication, empowerment, leadership, systemic vision, and teamwork are essential.[13] In this research, the importance of these attributes to a primary care patient safety level is extended.

It has been decided to include patients, managers, and workers from the multiprofessional team in this investigation. This decision was made considering that the social interactions between nurses, other health professionals, and service users contribute to incorporating the patient's participation, which is an integral component of the health management that should be encouraged in any context of care.[14] In addition, patients and other actors involved in the primary care are not often listened about what they think or how they feel when they receive assistance at healthcare settings.

The purpose of this qualitative multicentric study was to analyze how patients, health workers, and managers perceive and describe the attributes for safe care and its relationship to effective clinical governance at a primary care level.

Methods

Design

This study used a qualitative approach to gather and analyze the perspectives about the most important attributes for safe

care at the primary care settings and how they relate to effective clinical governance. Structured interviews and focus group meetings to collect data were carried out, and the thematic categorical analysis of the recordings was used using NVivo®, a software program that enables researchers to code and combine quantitative and qualitative data, to matrix code, and to develop conceptual and theoretical modeling of the data.[15]

Qualitative approach and research paradigm

The research is a qualitative study with a constructivist paradigm, in which the meaning of the experiences and events is constructed by the individuals. Therefore, the constructivism assumes that the criticism and transformation would be centered on goals for the reconstruction of the points of view of those involved in what is being studied.[16]

The theoretical assumptions were based on the 4th Generation Assessment paradigm proposed by Guba and Lincoln.[17] This is a responsive assessment in which the demands, concerns, and issues of interest groups serve as an organizational focus. There are different interest groups. Guba and Lincoln identified three: 'agents' – people involved in producing and implementing the service; 'beneficiaries' – all the people who benefit in some way from the use of the service; and the 'victims' – the people who are negatively affected by the service. This research paradigm was chosen because of its participative character and its formative dimension, allowing interest groups not only to think but also to analyze and intervene on the identified issues.

Researcher characteristics and reflexivity

The researchers are familiar with the primary care. Some of the authors have worked as primary care nurses in the past, at primary care settings located in different cities of Brazil, and all the authors have a nursing background and are professors at nursing colleges that have primary care–oriented courses.

We used reflexivity as a strategy to ensure that the researchers were aware of the dynamics between them and the study participants. Because the researchers do not currently work and have not previously worked at the settings where the study was conducted, we concluded that there was no bias due to relationship with participants.

The researchers consider that their position in the research project is alongside participants in the coproduction of knowledge. However, power imbalances are difficult to avoid, and tensions possibly remained.

Settings

Three primary care settings were chosen for the study. These settings belong to the public system and are located in Fortaleza, a large Brazilian capital city. Fortaleza has a population of approximately three million people and the third largest coverage of the FHS program among the cities with more than 1.5 million habitants, reaching 35% of the city's population.[18]

The three primary care settings of this study are located in different locations of the city with a similar human development index. The settings were chosen because they are standard primary care centers that use standardized protocols. As mentioned previously, the composition of the family health teams that work at primary care settings in Brazil are composed by one physician, one family nurse, one nurse technician, and four to five community assistants. The settings of this study had three family health teams working at each location. In all settings, the work processes are similar and guided by recommendations of the Brazilian Ministry of Health.

The three locations chosen for the study were considered 'laboratory settings' because they were under the implementation of changes for continuous improvement. The professionals at these three settings had undergone training and were more sensitive to the study subject.

In Brazil, nurses, nurse technicians, and community assistants are central to patient care at the FHS program. Most registered nurses are educated at the diploma level, which is achieved after 5 years of college education. The nurse technicians are required to complete few years of a nursing program (usually 2 years), and they assist and are led by a registered nurse. The community assistants work only at community-based organizations, such as the primary care settings, and their role is to promote health by visiting patients at home to gather information about the community and local problems, providing information to patients and their families, and engaging them in health promotion and diseases prevention activities. Currently, there are more than 200,000 community assistants working at community-based primary care settings in Brazil.[19]

Sampling strategy

The sample included patients, health workers (physicians, nurses, and dentists), community assistants, and managers. The inclusion criteria for health workers were to be for one year or more working at the primary care setting. Patients who were present in the waiting rooms and who were residents of the territories under responsibility of the three selected settings were all invited to participate. All the health professionals working in the three settings were recruited, but patients were included by means of convenience sampling (all patients interested in participate were included in the sample). Only registered nurses participated in the study (none of the nurse technicians were available to participate).

The subsequent data collection was determined by theoretical sampling and continued until the theoretical saturation. A total of 37 subjects agreed to participate in the study. No participants refused to participate or dropped out during the data collection.

Data collection methods and instruments

The data collection was conducted in 2015, after the main author's university institutional review board had approved this study. The study was carried out in four steps: step 1 – field immersion through daily convenience with the area residents, to allow people to get used to the presence of researchers in the settings; step 2 – non-participant observation of the work processes and structure of the settings, with continuous note-taking and use of preselected keywords on a

journal; step 3 – interviews with health workers and managers; and step 4 – focus group conducted with patients and community assistants.

The decision to approach health workers and managers using one-to-one interviews and patients and community assistants using focus groups was made considering that workers and managers were not available to participate together in a group meeting because of their busy schedule and because they worked at different sites. On the other hand, it was possible to schedule focus group meetings with patients and community assistants who were available and willing to participate. The time elapsed between the beginning of step two and the end of step four was three months.

A private room was prepared in each site to allow the audio recording of the interviews. These interviews lasted from 1 to 2 h and were conducted by an experienced interviewer. The participants who were interviewed knew each other if they were workers from the same setting, but they were interviewed individually. The workers were not informed about which patients would participate in the four of the study.

During step 3, an interview guide based on the authors' backgrounds and literary analyses was used. The following questions guided the interviews with the health workers and managers:

- *What is your opinion about safety in the primary care?*
- *What are your suggestions for promoting safety and quality care in this primary care setting?*
- *How do you see yourself through patient safety in the workplace?*
- *How do you identify adverse events?*
- *How do you perceive safety issues in primary care and what actions have you developed in this area?*
- *What is your opinion about the management and leadership in this setting, based on the goal of promoting patient safety?*
- *How does the process of communication between patients, health workers and managers in primary care occur?*

Age and gender were collected before the application of the questionnaire that was pilot-tested with one health worker, one patient, and one manager from a primary care setting that was not included as a setting for this study. All these subjects were not included in the final sample.

Step 4 focus groups were held at the primary care settings before patients were called to attend their scheduled appointments and at the times that were convenient for community assistants to participate. Patients and community assistants may have or may have not known each other previously. The focus group meetings lasted from 1 to 2 h and were conducted by the same researcher who carried out the interviews. The focus groups aimed to raise patients' and community assistants' insights into and perceptions of how safety is promoted at the primary care settings, as well as suggestion for an integral and high-quality care.

The speeches were recorded and transcribed. Participants have been given acronyms as follows: Ph – physician, N – nurse, D – dentist, M – manager, and P – patient. Besides the recordings, the researcher eventually transcribed field notes. The transcription of the recordings was followed by the thematic categorical analysis.[20]

Data processing and analysis

The NVivo® software, version 10.0, was not used for the analysis but for organizing the collected data by means of codification, treatment, storage, and management, thus facilitating the analysis process through the creation of codes, determination of analytical categories, and their relations. The coding tree consisted of three parent nodes (or codes): patient safety at the primary healthcare level, care production at the primary healthcare level, and clinical governance attributes. The main investigator was the person responsible for the analysis.

Techniques to enhance trustworthiness

To enhance trustworthiness and credibility, the role of the researchers during every study step was clarified. The interpretations of the data and analysis were reviewed, discussed, and criticized by all the authors, and member checking was used.

Results

The 37 study subjects included four family doctors, three nurses, three dentists, three managers, five community assistants, and 19 patients. Twenty-five participants were female, and 12 were male. The participants' age ranged from 20 to 60 years, and most of them were young adults. It was possible to identify 109 register units related to clinical governance and safe care in the primary care. These units were distributed into the five categories proposed by Nicholls et al.:[13] communication (46; 40%), leadership (22; 21%), systemic vision (20; 19%), empowerment (12; 11%), and teamwork (8; 9%). Although these attributes are interrelated, specific analyses were necessary to understand how they occurred in the production of care to promote patient safety.

Communication

Patients reported that their interaction with health workers was good, especially during the physical examinations.

> *I am very well assisted here, I always leave the room feeling well. (P2)*

> *I really liked it! They spent a lot of time asking about everything that I was feeling. (P3)*

> *They looked at me carefully, they examined my lungs, my heart… everything. (P9)*

> *I liked everything about it. (P11)*

In agreement, health workers also said that their interaction with the patients was good. On the other hand, one nurse reported that being with the patients only during consultations is a limitation for effective communication.

> *I don't think that communication [with the patient] is always good. Usually, the only opportunity to communicate with patients*

from my area [geographic area to which the worker was assigned] to strengthen the bond is inside the office. (N6)

It is important to create opportunities for outpatient interaction. The problems faced in primary care are complex and usually involve social, cultural, and economic factors. For this reason, it is important for practitioners to value the opportunities to communicate with the patient broadly, which can be favored when encounters occur outside the clinical setting.

Still, regarding communication, the health workers stated that frequent interruptions during the consultations affect the quality of care. By using non-participant observation, we registered the time spent with interruptions. A total of 35 min was spent with interruptions during prescheduled consultations and 26 min in non-scheduled consultations, mostly for non-important reasons.

Frequently, during the consultation, different people knock on the door just to ask for information. (D1).

Although patients had not reported the occurrence of interruptions during consultations (in spite of our observations), interruptions in the appointment-scheduling desk were mentioned.

The appointment scheduling desk is so confuse [...] I can't really understand what they say. (P2)

[...] often, the receptionists are rude [...] they won't even let us talk. (P8)

Besides miscommunication, a lack of respect and erroneous human behavior emerged during the focus group meetings, resulting in the discontinuity of care.

Once, I came to see the doctor and the receptionist told me that she wasn't here, and seconds later I saw the doctor walking toward us. (P11)

Another day, they made a mistake and scheduled my appointment wrongly. Then I said: It's not my fault! - and that was enough to make her angry at me. (P12)

Many factors corroborate to the problems reported by the patients. There was lack of clear information, signs, or flowcharts on the walls of the institution that cause people to interrupt the consultations to ask for information (as patients often see nurses as approachable people). In addition, narratives related to how receptionists respond to requests at the desk may be related to overwork or even lack of training for a friendlier service. Improving these situations depends mainly on the manager's willingness to do so.

Regarding this matter, managers recognized that communication problems were real at the primary care center.

Communication is a very important tool. (M4, M5, M6)

We try to address all the requests. (M4, M5, M6)

Knowledge of 'what' is needed is not enough; managers need to acquire knowledge and models of 'how' to improve communication at the workplace and tools that can lead to practical solutions.

Regarding the communication between health workers, problems, particularly between the manager and workers, were also found.

[...] communication here is very informal and spontaneous. I have not attended meetings yet. (Ph4)

[...] changes often occur, and these changes are only advised to us later [...] there are useful information that are not given to us in a timely manner, they come almost by surprise. (D1)

These statements show that workers do not clearly recognize the communication problems. By adding these findings to what was reported by patients, it is possible to realize that measures to improve the communication at these settings are needed.

Other workers affirmed that they avoid communication with the managers about problems that happen at the primary care center.

Sometimes we end up trying to avoid communication, because it often causes more problems than solutions. (Ph6, N6, D6)

Avoidance is a common behavior associated with both anxiety and shame emotions and may be associated with fear of a negative evaluation by others. Possibly, some paradigms must be deconstructed in the investigated settings, so the professionals are able to move toward better communication in their workplace.

Leadership

The managers who were interviewed see their role just as an act of providing the necessary conditions for the health care. They did not have an expanded perception of their leadership role:

Management gives you the autonomy to implement protocols and to provide inputs for a quality healthcare. (M6)

[The manager's role is] to provide inputs, to use common sense, to make compliments only when it is necessary, to understand, and to develop decentralized management actions. (M1, M4, M6)

I have colleagues who like to lead, but they also do paperwork, they work with the bureaucracy, and they spend a lot of time organizing work processes or events. (M4)

On the other hand, health workers had a different perspective of the managers' role at the primary care center.

[A manager must be] a dynamic person, an opinion-maker, who divulges and knows how to lead the group. (D1, D4, D6)

Managers motivate, share, listen, gather and unite the team. (Ph1, Ph6)

A manager is someone who is able to articulate people through dialogue. (HA6, HA8)

The manager helps organizing, negotiating, deciding and they allow people to talk about their necessities. (N1, N4)

Self-assessment is not easy. Most people do not have the skills that are necessary to evaluate one's successes or failures. Therefore, there is a mismatch between the way a person evaluates their own work and the way people see it. Mixed points of view about satisfaction with the leadership at the three settings were found.

The manager's performance is very bad. (P8, P10, P13)

[…] when we complain to the manager, she simply says, I can't do anything. (HA6)

I think that management flows very well here. (Ph1, Ph2)

The way people evaluate other peoples' work is influenced by many factors including the life context, personal aptitudes, and even by the emotions evoked when they think about a specific person (such as sympathy, anger, etc.). A deeper analysis would be required to ascertain about the origin of those divergent perspectives, but it is certain that personal issues underline the answers given by the participants.

Systemic vision

It is possible to observe that workers and patients lack clarity about the integrality of the different healthcare points of the network. Among the patients, for example, there were reports of dissatisfaction about referrals to other specialized services or whether the primary care center was the right place to be.

Once, I went to the hospital and they told me to go to the primary care center. When I got there, they told me that I should go to the emergency center, and then, when I got there, my problem was not solved as well, so I returned to the primary care center. (P8)

Among the workers, it was possible to perceive complaints about the difficulty of coordinating care between the different points of the network.

Most of the patients who come to us have the need for a secondary care or a tertiary care, and often they get loose because the system does not favor them … does not provide the follow-up of their treatment and they get lost. (Ph1)

Lack of knowledge about what situations the different points of the network are capable to attend was also recognized by the interviewees as a problem. Health workers reported that some patients think that all types of demand can be attended at a primary care center.

Once, a patient was shot and came to the primary care center instead of a hospital, because he believed that primary care centers are equipped to take care of any kind of emergency. (N6)

The community thinks that the primary care center is very similar to the emergency center. (Ph1)

Lack of clarity or direction to both, patients and workers, is a recurrent problem not only in primary care but also in secondary and tertiary care institutions of Brazil. The way the health system is organized is not always clear, even to health workers. The systemic vision is embedded in discourses of public health stakeholders and publications supplied by the Brazilian's Health Ministry. However, many people still do not understand how the health system is organized or where they must go when they need health care.

Empowerment

Throughout this study, it was possible to realize that most patients do not participate actively on the decision-making about their own treatment.

Doctors always say: you have to do this way. (P7, P10)

What the doctor commends must be done. (P3, P4, P10, P16, P19)

In developed countries, such as the United States and the United Kingdom, the focus has been on increasing the public awareness of medical errors and efforts to actively engage patients in their own care. The public health implications that emerge from this finding tell us that these patients are still seen (by themselves and others) as passive recipients of care, which is a barrier to patient safety.

When patients and practitioners are empowered to recognize and prevent errors, they develop an influential role in the quality and safety movement. Although patient empowerment is growing in popularity and application, it is a complex goal to achieve because it is a multileveled construct that has manifestations at the different levels of society. These findings make us aware of the fact that there is a long way to go before the patient empowerment can be achieved in the study settings.

Teamwork

It was possible to observe that the multiprofessional team at the primary center was mainly composed by doctors and nurses. From the point of view of the workers, organizational deficiencies and non-efficient teamwork were the major problems.

Doctors and nurses are the ones who work closer to the patients, then they are able to tell what is better for the patients. (Ph1, Ph2, D1, D6).

Whenever is possible, we work as a team, we plan the actions together, but that doesn't happen always. (E1)

Nurses are the ones who are accountable for most of the responsibilities at the center. (M6)

I still do not consider myself part of a team yet […] I feel excluded. (Ph4)

Many barriers exist in the Brazilian primary care settings to effectively engage all the categories of health workers in collaborative activities. Often, physicians do not spend enough time with the other health workers because they usually work in more than one institution or work overtime in the public sector, which may explain our findings. Interprofessional teams constitute a large component of the family-centered primary care in Brazil. The researchers believe that the interpersonal aspects of teamwork override the organizational aspects and that individuals who engage in teamwork are more likely to overcome the barriers and to take actions to ensure patient safety.

Discussion

This study explored different perspectives on patient safety from the point of view of those who participate daily in the primary health care: the local manager, the health workers, and the patients. The findings highlight the importance of shared knowledge to promote patient safety at the primary care.

The researchers used the clinical governance framework for the data analysis because it is the core of Brazil's public health model. This framework comprehends many conditions, but the most distinguished ones are the systemic vision, teamwork, communication, empowerment, and leadership. The framework was useful and efficacious in addressing concerns about safety attributes and factors that compromise it. The results revealed that even though there is an attempt to implement those attributes, the ideal of a safe and effective primary health care is still far from being met in the study settings.

Briefly, the systemic vision is a decisive factor for effective clinical governance. This component comes from the principles of human factor engineering and is characterized by a broad view of the whole and how each subject is inserted in the health system, which contributes to the reduction of errors.[21] The clinical governance also requires the involvement of all members of the organization and a leader who is able to lead the process through teamwork, which was a problem area highlighted by this study.

Proper communication is also crucial for the clinical governance because it minimizes errors and increases the patient's satisfaction. Empowerment and leadership are both enhanced when professionals and patients feel engaged and have a sense of belonging. In the following lines, these concepts will be discussed in a greater depth.

The clinical governance is one of the main vehicles for the continuous improvement of the quality and safety of patient care. The development of the clinical governance is designed to consolidate, codify, and universalize fragmented policies and approaches. In other words, it is a way to create organizations in which managers and workers contribute collaboratively to achieve higher standards of quality and safety. To achieve effective clinical governance, the organizations must work on accountability arrangements in detail and ensure that they are communicated throughout the organization – which is why communication plays a key role in this concept.[21]

Our findings revealed communication problems at different levels involving patients, workers, and managers. This is worrisome because effective communication is crucial for a safe care. Authors from a study conducted with senior managers found that overworking managers were less likely to have the time for communication, reflection, and behavior change. In addition, they concluded that the absence of adequate upward communication made it difficult for managers to be aware of the full nature of the problems and, consequently, made it difficult for them to find solutions.[22] This reality is probably similar to what we found in this study. Thus, actions directed at improving the communication in these settings must be taken urgently.

Leadership was another compromised component of the clinical governance in the primary care settings. On what concerns the local manager, it was noticed that there is a lack of autonomy for decision-making or a fear in discussing important issues with the team, because of a concern that the expectations will not be achieved. It is understood that the manager becomes a hostage of the decisions at a higher hierarchical level and that he or she is usually not 'involved' enough to understand the importance of these decisions. As a result, the changes do not happen. Moreover, because there is no in-depth discussion regarding what is decided, ordinances are just passed to the workers as something to be fulfilled, compromising the involvement and relational autonomy at the workplace.

There is an abyss between what is expected from the managers as leaders and what they really do. Most managers self-assessed themselves as good leaders, who provide frequent inputs and compliments to the team and who work collaboratively. However, workers and patients did not always agree. Most participants reported that they expect a leader who is dynamic, who knows how to negotiate, who makes decisions, who positively influences people, and who motivates and shares, and a person who can join and articulate people. They also affirmed that these characteristics are not being met.

Throughout the epistemological analysis, it was possible to identify that the managers do not have autonomy for decision-making, that they feel scared and oppressed, and that there is a lack of leadership to promote a safer health care. In this context, new strategies are needed to promote a healthy leadership, such as coaching, which is a strong tool to save costs, to retain clinicians, and ultimately to raise the level of patient care quality.[23]

By gathering patients' and workers' narratives, it was possible to identify systemic vision problems. Systemic vision is defined as the ability to understand the systems according to the approach of the General System Theory, that is, to have the knowledge of the whole to allow the analysis or the interferences in it.[24] It permits uncovering the components of structural parts, relationships, and interactions that explain a process, with the adjustments and mutual influences responsible for the unit, the coherence of certain actions or incoherence of others.[25]

The Brazilian Health System is organized on a regional and hierarchical form with three levels of complexity of health care. The primary care represents the first element of a continuing healthcare process, complemented by specialized

actions. However, not all patients and practitioners understand how the system is organized, or they do not know how to appropriately refer patients, leading to the discontinuity of care or even negligence.[26]

It was noticed that, often, workers end up using informal networks to provide care because they do not receive an effective response from the practitioners/managers at the healthcare network. As a result, patients get dissatisfied, and conditions that could be managed at a primary care level end up getting worse. The data collected from four public pediatric hospitals in a large city of Brazil showed that primary care–sensitive conditions such as pneumonia, gastroenteritis, and urinary infections that could be initially treated in the primary care settings led to 82.4% hospital admissions. The study authors also found that the duration of hospital stays due to primary care–sensitive conditions was longer than those due to conditions that were not sensitive to primary care.[27]

Another dimension that was strongly compromised was the empowerment. Most patients see themselves as dependent of the health workers and feel powerless to contribute to the improvement of the care quality and safety.

The way patients understand safety in the primary care can affect their involvement, which ends up affecting their own safety. Authors of a mixed-methods study have found that the patients' perceptions of threat and self-efficacy are related to the performance of factual and challenging patient safety practices, explaining 46% and 42% of the variance, respectively. Perceptions of the safety culture accounted for 34% of the variance in the perceptions of threat and 42% of the variance in the perceptions of barriers versus benefits.[28] The patient empowerment is a relatively new concept in health care even in developed countries. Four components are considered fundamental to the process of patient empowerment: 1) patient participation (which is influenced by characteristics such as age, culture, background, personality, and education), 2) patient knowledge (important to help them engage in decisions with the providers), 3) patient skills (including self-efficacy and health literacy), and 4) facilitating environment.[29] Although this study had not deeply investigated these components, the observational phase of the research and insights into the speeches reveal the existence of many gaps that compromise the patient involvement and empowerment.

It is believed that further action plans to increase the patient safety at the primary care settings must couple patients' priorities and perspectives with the evidences from assessment and monitoring processes. For that to happen, local managers must be involved and trained, so they are able to implement a patient-centered approach.

It was noticeable that teamwork was also not effective at the selected sites, thus compromising the implementation of a culture of patient safety. The organization of services is a problematic issue in Brazilian primary healthcare centers. It is easy to gather negative comments from patients and health workers as a form of protest. There is no way to have a safe practice when the service is not well organized, for example, through flowcharts and protocols, and where inputs are lacking, and workers are unskilled. In addition, there are divergences between what is proposed and what is indeed implemented.

Regarding the micromanagement, the involvement of the worker is of paramount importance. Excessive demand in high-complex services directly impacts health care. An international survey of primary care doctors in the United States and nine other countries revealed that they are concerned about how well prepared their practices are to manage the care of patients with complex needs and about their variable experiences in coordinating care and communicating with specialists, hospitals, home care, and social service providers.[30] In this way, it is suggested that strategies for clinical governance should be encouraged because they favor an effective and safe care management.

Practices need to be changed. Transformational leadership should be encouraged, for it can make a big difference in the Brazilian primary health care. Transformational leadership is defined as a style of leadership in which a leader works with subordinates to identify necessary changes, creating a vision to guide them. It enhances the motivation, morale, and performance of his followers through a variety of mechanisms.[31]

The effective use of clinical governance tools (including transformational leadership) requires trained professionals and support. Authors of an investigation about the sources of public service motivation concluded that the transformational leadership is an organizational factor that is related with higher public service motivation. They also found a relationship between the transformational leadership and the mission valence – the transformational leadership has an important indirect effect on the mission valence through its influence on clarifying organizational goals and fostering public service motivation.[32] Balanced working relationships between autonomous procedures (that are carried out without the imposition of others) and heteronomous ones (subject to an external law or the will of others) can bring advantages both to the organization and to the professionals. An organizational environment, where professionals perform their functions with responsibility, trust, and satisfaction, presupposes spaces for self-realization.

An urgent strategy to overcome part of the problems found in this study is the implementation of protocols and training with the use of strategies to empower health workers in promoting patient safety. Clinical protocols must be created using a clear language so that workers are capable to refer patients to another healthcare point correctly. Unfortunately, in Brazil, the absence of protocols is not exclusive to the primary care settings and this type of fragility can be found even in large-sized hospitals.[33]

From the patients' perspective, it can be concluded that the therapeutic relationship directly impacts how they perceive care quality and safety. As an example, they mention that non-verbal language is very important during the physical examination. It is understood that the promotion of patient empowerment is linked with the promotion of their citizenship. Thus, if we really want patients and their families to participate in the clinical decisions, we must put effort into patient empowerment.[34] Therefore, health workers must strengthen the relationship with the patients, the manager must provide the necessary conditions for the health care, patients and their families must take responsibility for their own health care (if possible), and the government must strengthen the public health services network.

The problems found in this study are not exclusive to Brazil. For example, difficulties concerning the provision of mental health care to publicly insured children were pointed out in a study conducted in Los Angeles, California. The main problems found after the analyses were communication and coordination throughout the phases of the referral process, particularly at the initial referral and transfer back to primary care.[35]

A multivariate logistic regression analysis of 13,958 surveys conducted with patients from 11 countries showed that at least 33% of respondents reported one care coordination gap and 5% experienced poor primary care coordination (defined as participants reporting at least three gaps in the coordination of care). Patients reporting that their primary care physician often or always knew their medical history spent sufficient time with them, involved them in decision about their care, and explained things well had significantly lower odds of having a gap in each of the five care coordination components.[36]

One singularity of this study is the use of a qualitative epistemological perspective to assess patient safety. In general, studies about patient safety are quantitative. A qualitative approach can be useful to reveal gaps that are only identified through the analysis of subjective aspects. In addition, it is believed that the triangulation of qualitative and quantitative methods is paramount, and thus, the intention is to use the findings from this study in a further mixed-methods analysis.

Another singularity of this study is the acknowledgment that primary health care is not necessarily performed at minimal risk. This conclusion was drawn throughout the reflections raised during the study, which point out to the weaknesses of the study settings regarding patient safety attributes. Interestingly, none of the participants directly talked about safety threats or incidents, but they were able to identify problems that affect the background needed for a safety culture in primary care settings.

Limitations

There are some limitations regarding the approach of this study. First, as any qualitative study, there are challenges in terms of generalizable results. The researchers tried to expand the generalizability of the results by including three primary care settings, but they acknowledge that the reality can be very different in other sites, even inside the country where the study was conducted.

Second, regarding validity, the qualitative research heavily depends on the researchers' interpretation and skills. The researchers tried to minimize this by joining a group of scholars who are involved in research and teaching topics that are related to primary health care for this study (and most of them have worked as primary care nurses in the past).

Finally, the accuracy of the self-reported data is unknown, and the use of individual interviews to collect data may have caused some participants to give responses perceived as socially desirable to the interviewer.

Conclusion

It was possible to realize that essential attributes for patient safety in primary healthcare settings are not being fully addressed. Perspectives collected from patients, workers, and managers show that many barriers exist to effectively implement these attributes and revealed that the gaps are not necessarily due to lack of investments but mainly to the lack of will or ability to implement effective strategies.

Author statements

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Ethical approval

The work has been approved by the Ceara State University Research Ethics Board (reference number 735550/2014-08). All participants signed an informed consent form.

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Competing interests

None declared.

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