

## PATIENT SAFETY ATMOSPHERE IN PRIMARY HEALTH CARE: ROOT CAUSE ANALYSIS

### CLIMA DE SEGURANÇA DO PACIENTE NA ATENÇÃO PRIMÁRIA À SAÚDE: ANÁLISE DE CAUSA-RAÍZ

### CLIMA DE SEGURIDAD DEL PACIENTE EN LA ATENCIÓN PRIMARIA DE SALUD: ANÁLISIS DE LA CAUSA RAÍZ

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#### ABSTRACT

**Objective:** to assess the safety atmosphere in primary health care and to analyze the possible causes of the identified problems. **Method:** action research carried out in 2017, in a municipality in the Northeast of Brazil, divided into three moments: approaching the field, application of the Safety Attitudes Questionnaire and discussion with health workers about causes of incidents in primary care through a diagram of Ishikawa. Fifty-five professionals from seven family health teams, present in the basic health units at the time of data collection, participated. Quantitative data were organized in the Statistical Package for Social Science (SPSS) database. **Results:** in the assessment of the safety atmosphere, job satisfaction was the one that obtained the highest score. The lowest score was related to working conditions. All of these aspects directly interfere with patient safety. The causes identified by the workers through the diagram were: lack of resources, lack of adherence to the treatment of patients and stress of professionals. **Conclusion:** there is a need for actions collectively built with managers, users, and health workers to improve the safety atmosphere. Such actions can provide improvements in the quality of care provided.

**Keywords:** Patient Safety; Primary Health Care; Health Evaluation; Patient Care Team; Health Personnel; Job Satisfaction.

#### RESUMO

**Objetivo:** avaliar o clima de segurança na atenção primária à saúde e analisar as possíveis causas dos problemas identificados. **Método:** pesquisa-ação realizada em 2017, em um município do Nordeste do Brasil, dividida em três momentos: aproximação do campo, aplicação do Safety Attitudes Questionnaire e discussão com trabalhadores de saúde sobre causas de incidentes na atenção primária por meio de um diagrama de Ishikawa. Participaram 55 profissionais de sete equipes de saúde da família, presentes nas unidades básicas de saúde no momento da coleta de dados. Os dados quantitativos foram organizados no banco de dados do Statistical Package for the Social Science (SPSS). **Resultados:** na avaliação do clima de segurança, a satisfação no trabalho foi a que obteve o maior escore. O menor escore foi relacionado às condições de trabalho. Todos esses aspectos interferem diretamente na segurança do paciente. As causas identificadas pelos trabalhadores por meio do diagrama foram: ausência de recursos, falta de adesão ao tratamento dos pacientes e estresse dos profissionais. **Conclusão:** nota-se a necessidade de ações construídas coletivamente com gestores, usuários e trabalhadores da saúde para melhoria do clima de segurança. Tais ações podem proporcionar melhorias na qualidade do cuidado prestado.

**Palavras-chave:** Segurança do Paciente; Atenção Primária à Saúde; Avaliação em Saúde; Equipes de Assistência ao Paciente; Pessoal de Saúde; Satisfação no Emprego.

#### RESUMEN

**Objetivo:** evaluar el clima de seguridad en la atención primaria de salud y analizar las posibles causas de los problemas identificados. **Método:** investigación acción realizada en 2017, en un municipio del Nordeste de Brasil, dividida en tres momentos: acercamiento al campo, aplicación del Safety Attitudes Questionnaire y discusión con los trabajadores de salud sobre las causas de los incidentes en la atención primaria a través de un diagrama de Ishikawa. Participaron 55 profesionales de siete equipos de salud de la familia, presentes en las unidades básicas de salud en el momento de la recolección de datos. Los datos cuantitativos se organizaron en la base de datos Statistical Package for the Social Science (SPSS). **Resultados:** en la evaluación del clima de seguridad, la satisfacción laboral fue la que obtuvo la mayor puntuación. La puntuación más baja se relacionó con las condiciones laborales. Todos estos aspectos interfieren directamente con la seguridad del paciente. Las causas identificadas por los trabajadores a través del diagrama fueron: falta de recursos, falta de adherencia al tratamiento de los pacientes y estrés de los profesionales. **Conclusión:** existe la necesidad de acciones construídas colectivamente con gerentes, usuarios y trabajadores de la salud para mejorar el clima de seguridad. Dichas acciones pueden proporcionar mejoras en la calidad de la atención brindada.

**Palabras clave:** Seguridad del Paciente; Atención Primaria de Salud; Grupo de Atención al Paciente; Personal de Salud; Satisfacción en el Trabajo.

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## INTRODUCTION

The concern with the quality of health services has been widely discussed due to the alarming rates of the occurrence of events that cause harm to people who enjoy the health system, a fact that has been causing worldwide discussion on patient safety, configuring it as an important part in the quality of care provided.<sup>1</sup>

Although there is wide dissemination of the theme in the hospital environment, it is known that there are gaps regarding the theme in primary health care (PHC), which has been arousing concern, both worldwide and at the level of the Unified Health System (*Sistema Único de Saúde - SUS*), fact referred to by the increase in research in this scenario.<sup>2-4</sup>

In PHC, for every 100 consultations, two to three patient safety incidents occur. In Brazil, a study developed in *Manaus* identified the incidence of three security incidents per 1,000 calls.<sup>5</sup>

However, there is a perception that in PHC incidents do not have drastic consequences, but their effects may have more magnitude, as they expose a greater number of people. Thus, evaluating the safety culture is essential for it to be improved with the reduction of adverse events.<sup>3</sup>

An associated strategy for reducing adverse events is an environment with a positive safety culture.<sup>6</sup> Accordingly, one can evaluate the safety culture from the safety atmosphere, the measurable part of the culture.<sup>7</sup> Among the existing instruments for this measurement, the Safety Attitudes Questionnaire (SAQ) is the most sensitive to assess individual safety attitudes.<sup>8</sup>

Studies carried out with SAQ in the Netherlands and Italy have shown that the assessment of the safety culture through a questionnaire is an efficient method for the development of policies to strengthen services and improve communication between managers and the health team.<sup>2,9</sup> In Brazil, research showed a negative assessment of the safety culture in primary care. However, in order to improve the safety culture, it was suggested the elaboration of protocols, training planning, improvements in communication, in the work environment and infrastructure, reduction of work overload, error prevention and more resolvability.<sup>3</sup>

Therefore, evaluating the safety culture in health institutions, especially in basic health units (*Unidade Básica de Saúde - UBS*), is an important tool in the analysis of quality. Through the information obtained, it is possible to obtain indications of the need to reconstruct health work.

Thus, the objective of this research was to assess the security atmosphere in primary health care and to analyze the possible causes of the problems identified.

## METHOD

It is a research-action. The study was developed in a municipality in the Northeast region of Brazil. It has seven family health teams, in rural and urban areas, promoting coverage of 100% of the area. The UBS have medical and Nursing services, oral health, pharmacy, ambulatory, and vaccination room. In addition, some services of medical specialties and specific exams are offered periodically.

The study population was 61 professionals from the seven teams. The sample used was intentional, not probabilistic, composed of health professionals who met the inclusion criteria of the study: being present in the unit at the time of collection and being at least one month working in the basic health unit, totaling 55 health professional participants.

The municipality was chosen due to its proximity to the institution to which the research was linked and aimed to benefit the surrounding community, leading to a discussion on patient safety. The action research was developed following a methodological itinerary suggested by Ramos *et al.*<sup>10</sup> and added by two more phases, as it is considered necessary. Therefore, it was divided into four phases: exploratory; of planning; of action; and evaluation.

The exploratory phase was aimed at bringing the field closer to the primary health care units. This phase occurred between January and February 2017, when the Safety Attitudes Questionnaire (SAQ) was applied cross-culturally in the Portuguese/Brazil version.<sup>8</sup>

The questionnaire was delivered to the professionals, who had 20 minutes to answer it, and the time was controlled by means of a digital stopwatch. After half the stipulated time, the participant was informed about the remaining time. The estimated response time for the questionnaire was based on previous surveys, which concluded that, on average, it takes approximately 10 minutes to complete the questionnaire.<sup>8</sup> However, the surveys also revealed that mid-level professionals demanded more time. Thus, it was decided to offer 20 minutes as a time for response.

Still on the questionnaire used, it is a self-administered type, composed of 41 questions that aim to measure the perception of the security atmosphere, through five domains: teamwork atmosphere; job satisfaction;

perception of the unit and hospital management; work conditions; and stress recognition. The answers to each of the questions follow a Likert scale: I totally disagree (A) → I totally agree, and it doesn't apply (E).<sup>8</sup>

Data analysis was organized in the Statistical Package for the Social Science (SPSS) database. To this end, the items of the instrument were analyzed by domain/dimension, considering means, medians, and standard deviation. After the inversion of the reverse items, the formula  $(m-1) \times 25$  was applied to each item,  $m$  being the average of the items in the domain in question, ranging from zero to 100. Positive safety culture scores  $\geq 75.8$  are considered.

With the results analyzed, the planning phase began. This phase was aimed at preparing the workshop proposal for the construction of the Ishikawa diagram, a methodological tool used to identify the causes of a problem with health professionals, based on the consolidated data after the application of the questionnaire.

The evaluation phase included the execution of the workshop to discuss the SAQ results. The workshop took place in a single day in the auditorium of the municipal health department. For this phase, all study participants were invited. However, only nurses and managers participated. The workshop was divided into three stages. In the first, the results of the SAQ were presented to the participants, by means of slides, and the objective was to provide professionals with information relevant to the reality of the health services where they were inserted. Then, the second stage was held, which aimed to discuss the results with the participants. This discussion was made through a conversation circle in which they were able to expose their impressions regarding the results obtained with the application of the questionnaire.

Finally, the third stage was carried out, already in the action phase, which consisted of the elaboration of the Ishikawa diagram, dynamically through the speeches of the participants. To this end, this tool was presented to the participants, who did not know it, its form of application and its purpose. The third stage took place in a single meeting. Thus, the two meetings totaled four hours.

The construction of the diagram was performed by presenting the data obtained after the application of the SAQ questionnaire in a workshop with the professionals participating in the research and conducted by one of the team members. Then, the participants were prompted to report, according to their practical experiences, what were the possible causes of the observed problem.

Among the speeches, those that were most present were allocated directly on the Ishikawa diagram, at the

time of the meeting with the participants. For this, the causes mentioned were divided into factorial groups, which were the factors: personal, organizational, or service, external, patient, work or environment, and others.

This study was approved by the local Ethics and Research Committee and met the principles required by it. All participants agreed to participate in the research, through the Informed Consent Form.

## RESULTS

Of the 55 health workers who answered the questionnaire, 50 (90%) were female and 47 (91.8%) had a secondary or technical level. Of these, 23 (24%) were community health agents (CHA), followed by Nursing assistants/technicians and environmental support professionals, with nine (9.4%) professionals each. As for working time, 20 (20.8%) were between 11 and 20 years old.

The scores of the SAQ domains ranged between 44.7 and 74.8. The final average of the questionnaire was 55.9, showing that the score was not positive. Domain 3, related to job satisfaction, was the closest to the number of positive scores, with an average of 74.8. It was found that the lowest score occurred in domains 6 and 5, which assess working conditions (44.75) and management's perception (44) (Table 1).

Based on the results obtained with the SAQ, the weaknesses that could compromise the patient's safety atmosphere were discussed with the professionals. From this, the construction of the Ishikawa diagram was carried out. The causes were grouped into six categories, aiming to cover all reports (Figure 1).

As personal factors, which deal with what would be intrinsic to the professionals, the participants mentioned stress due to overload and poor working conditions; fear of losing his job; tiredness due to the accumulation of jobs, as some also exercise night shifts in hospitals; overconfidence, that is, the professional is so used to certain behaviors and actions in his professional practice that he does not reflect on the care provided; and lack of interest in innovating and engaging in improving the service.

At the same time, as organizational or service factors referring to the organizational and physical part of the units, the lack of resources and feedback was cited as a problem. It was reported that there is no manager at the unit to provide the necessary resources and there are weaknesses in the control of inputs, which generates a lack of these materials for use by professionals. In general, nurses from health teams assume this role,

Table 1 - Mean, minimum, maximum and standard deviation by domain of the Safety Attitudes Questionary (SAQ), applied in primary health care units. Brazil, 2017

Domains	Media	Maximum	Minimum	Standard deviaton
1 Teamwork mood	66.6	100	25	16.3
2 Safety atmosphere	51.4	85.7	25	18.2
3 Work satisfaction	74.8	95.8	33.3	13.5
4 Stress perception	64.7	100	6.2	25.4
5 Management perception	45	95	00	21.4
6 Work conditions	44.7	100	00	24.47
SAQ total	55.9	77.7	26.3	11.7

Source: the authors.

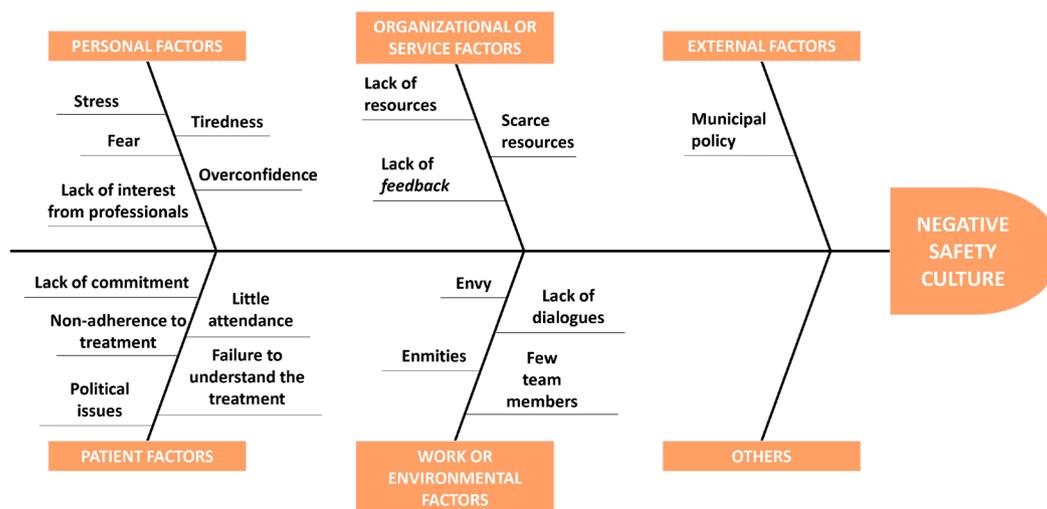


Figure 1 - Ishikawa diagram constructed in primary health care units. Brazil, 2017  
Source: the authors.

which triggers work overload. This result reinforces why the domain management perception and working conditions were the domains with the lowest scores.

In the case of external factors that are related to the service, but originate in other places, municipal policy was cited as a problem. The bonds of health workers are fragile, with temporary contracts with low remuneration prevailing. Such a situation provides the workers' vulnerability to stressful situations in order to keep their jobs, which triggers fear and anguish due to uncertainty.

The patient's factors reported were lack of commitment to health care; little attendance; not understanding; and non-adherence to treatment. It was also mentioned that, for political reasons, patients were also influenced and declared themselves to be disbelievers in the health service.

Finally, regarding the factors of work or the environment, which concern more subjective and relational issues, the reports dealt with envy among health workers;

absence of dialogue between team members to manage patient care; enmity due to daily wear and tear due to lack of engagement by other professionals in work processes; and few members of the team, that is, there are few health agents, and with these large extensions of the uncovered territory. No references were made to the "other factors" category.

It is noteworthy that the effects considered for the construction of the diagram emerged from the results of the SAQ. Therefore, the discussion was to identify what would cause the problems previously exposed.

## DISCUSSION

In view of the result obtained through the application of the SAQ, a negative safety culture was identified in the scenario studied in primary health care. The exploratory phase of this action research allowed the insertion of the researcher and supported the situational diag-

nosis of the atmosphere of safety in primary health care in the studied territory. The results presented showed that the scores of the six domains of the SAQ instrument had values below 75, lower than those recommended by the literature, and three domains had values below 60, which indicates the need for actions to implement the safety culture in the institution.<sup>8</sup>

From this, the discussion with health workers and the construction of the Ishikawa diagram emerged, with the intention of the root cause for this fact. The causes were grouped into six categories, considered important for the proper functioning of the service.

The first domain, teamwork atmosphere, had an average score of 66.59. When compared with other domains evaluated, it presented a higher value. In PHC, teamwork is essential to achieve comprehensive care.<sup>11</sup> It is already known that ineffective teamwork can worsen the safety atmosphere in primary health care.<sup>12</sup> In the discussion of possible causes that contributed to the negative score and reported by the workshop participants, it referred to the lack of medical professionals with incomplete family health teams. The absence of professionals from the team weakens teamwork to reach local indicators.

Domain 2, an atmosphere of safety, focuses on the perception of professionals regarding organizational commitment to patient safety.<sup>7</sup> This domain reached an average score of 51.38, below that recommended by the literature. It was reported by health workers that there is a lack of clinical care protocols focused on the local health reality. Thus, they realize that there is no discussion by management with an emphasis on patient safety. The focus is on the quantity of actions and not on quality. In addition, the records are fragile and there is no frequent evaluation of the data recorded there, and the medical records and protocols appropriate for the local reality are a tool for effective communication. It is noteworthy that communication failure is the most common contributing factor to the occurrence of incidents.<sup>13</sup>

As for domain 3, job satisfaction, it obtained the highest score among all six domains, 74.78. This domain concerns the positive view of the workplace. The data are in line with other experiences in the application of the SAQ in primary care.<sup>2,14</sup>

It is known that good results in the work satisfaction domain have a positive relationship with the safety atmosphere.<sup>14</sup> Although the results of the present study go in the opposite direction, the adequate analysis of the professionals in relation to this domain is a fact seen as beneficial, since professional satisfaction with work is intrinsically linked to the quality of care provided.<sup>15</sup>

It is interesting that, in the discussion on the construction of the Ishikawa diagram, one of the punctuated factors in relation to the work that compromised patient safety was the absence of dialogue, envy, enmity and an insufficient number of professionals in the team. They also described that the lack of communication within the team and between the teams contributed to the lack of security for the patient. They reinforced the need for more interaction and commitment between team members.

The stress perception domain had a mean score of 64.77. Stress negatively influences care, since, in addition to being a cause of illness, it can also reflect tiredness, demotivation and can be directly related to the occurrence of errors.<sup>3</sup>

In the scope of PHC, the perception of stress becomes even more relevant, since in this scenario of health care, the professional provides care that requires direct contact with the community. In addition, professionals from the Family Health teams have a greater accumulation of services, low remuneration, among other conditions that produce psychological distress and that damage the quality of life and the quality and comprehensiveness of health care of the population served by the Family Health Strategy.<sup>16</sup>

It was identified by the participants, in the category personal factors, that the main causes that compromised the patient's safety are related to stress, tiredness, fear, overconfidence and lack of interest of the professionals. These factors can be indicative of lack of professional achievement, which can interfere with the quality of care.<sup>16</sup>

In the face of this threatening scenario for patient safety, training aimed at non-technical skills, or soft skills, such as communication, diplomacy, conflict management and feedback, can be used to engage more health workers. Developing emotional intelligence is also relevant in this regard.<sup>17</sup> These measures will reflect positively on the quality of the service provided, in the face of a friendlier relationship and a positive practice environment.<sup>18</sup>

Domain 5, perceived by the unit's management, had an average score of 45.2. This was one of the lowest scores found, which differs from the results of a survey conducted in basic health units in Rio Grande do Sul, where the answer was considered positive.<sup>3</sup>

These values demonstrate the need for more interaction between management and assistance workers, jointly elaborating actions aimed at improving the security atmosphere and based on the real needs of the service. This improves the quality of the services provided, in addition to suppressing the emergence of negative

feelings from both parties, healthcare professionals and health service managers.

This result converges with what was reported by the professionals, organizational or service factors, lack of resources and feedback and scarce resources. This data reveals the professionals' dissatisfaction with the attitudes of the management or administration of the unit related to actions aimed at patient safety, which leads to a atmosphere of less security in the units.

In addition, the participants pointed out, in the third category, external factors, that the management was subjected to following orders, sometimes inadequate, in order to maintain their position due to political indication. Thus, municipal policy was also mentioned as the main contributing cause for the lack of a atmosphere of security. This partisan political influence can cause damage to health units, since it is difficult to maintain work that is free from political interests. It is possible to exercise continuous management, even with political changes, as it was committed to providing adequate conditions for health workers.<sup>19</sup>

The lowest score among the six domains was found in domain 6, working conditions, which refers to the perception of the quality of the work environment, with an average score of 44.75. The working conditions concern several aspects in the professional's day-to-day, from quality of inputs, salary issues and number of staff of the team.<sup>1</sup>

The lack of inputs and scarce resources were mentioned by health professionals in organizational factors. The lack of resources can influence the quality of services provided, as well-structured units can favor job satisfaction and good service practices. A study demonstrated that the absence of physical structure inputs can contribute to the dissatisfaction of professionals working in the units.<sup>20</sup> In this context, the realization of action plans aimed at the intelligent use of existing resources can be an instrument capable of strengthening the atmosphere of safety for the patient in the units.

In the category of patient factors, the lack of adherence by users was observed. This can be a problem when considering that the patient is the last barrier that can prevent harm to you. One way to act in this regard is to promote the involvement of patients in care, addressing the users' negative emotions and expectations, while reinforcing motivational and goal-directed attributes, which can improve treatment adherence.<sup>21,22</sup>

In this study, the participants were able to identify the problems that affect patient safety, evidencing ad-

vances with regard to the theme. However, the engagement for the participation of those involved was only possible after a period of insertion and previous integration. It was also reported by a health professional that the care he provided was safe and that he did not see the need to evaluate it, which is not in line with the results of this study. This demonstrates the need to expand research on patient safety in primary health care.

## CONCLUSION

Regarding the assessment of the security atmosphere, all domains showed lower values than those recommended. Three showed indicatives of interventions to improve the security atmosphere. Thus, it was concluded that factors such as lack of communication, stress and poor working conditions can contribute to unsafe attitudes.

With regard to the root cause, ineffective and uncompromised management is the main cause for the lack of security and quality of care. Ineffective management discourages family health teams, for not providing the necessary resources, in addition to not providing the atmosphere for efficient feedback and communication. This situation causes bad feelings, stress, and tiredness, which can influence the patient's clinical management.

The implications of this research for the practice are presented in the assessment of the safety culture of primary care teams, associated with the discussion, through the Ishikawa diagram, about the identified weaknesses, which caused the possible factors to emerge from the professionals themselves influencers of the negative security culture. In addition, this study can serve as a basis for further research on the subject, so that they can go beyond the application of the safety culture assessment questionnaire.

As weaknesses of the study, one can mention the cross-sectional assessment of the culture of a specific place, therefore, with limited generalizability of the results.

## REFERENCES

1. Klemenc-Ketis Z, Makivić I, Poplas-Susič A. Safety culture in the primary health care settings based on workers with a leadership role: the psychometric properties of the Slovenian-language version of the safety attitudes questionnaire – short form. *BMC Health Serv Res.* 2018[cited 2020 Dec 29];18:767. Available from: <https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-018-3594-8>

2. Smits M, Keizer E, Giesen P, Deilkås ECT, Hofoss D, Bondevik GT. Patient safety culture in out-of-hours primary care services in the Netherlands: a cross-sectional survey. *Scand J Primary Health Care*. 2018[cited 2020 Dec 30];36(1):66-47. Available from: [https://www.scielo.br/pdf/reben/v72n1/pt\\_0034-7167-reben-72-01-0027.pdf](https://www.scielo.br/pdf/reben/v72n1/pt_0034-7167-reben-72-01-0027.pdf)
3. Souza MM, Dal Ongaro J, Lanes TC, Andolhe R, Kolankiewicz ACB, Magnago TSBS. Patient safety culture in the Primary Health Care. *Rev Bras Enferm*. 2019[cited 2020 Dec 29];72(1):32-9. Available from: [https://www.scielo.br/pdf/reben/v72n1/pt\\_0034-7167-reben-72-01-0027.pdf](https://www.scielo.br/pdf/reben/v72n1/pt_0034-7167-reben-72-01-0027.pdf)
4. Al Lawati MH, Dennis S, Short SD, Abdulhadi NN. Patient safety and safety culture in primary health care: a systematic review. *BMC Fam Pract*. 2018[cited 2020 Dec 29];19:104. Available from: <https://pubmed.ncbi.nlm.nih.gov/29960590/>
5. Aguiar TL, Lima DS, Moreira MAB, Santos LF, Ferreira JMBS. Patient safety incidents in Primary Healthcare in Manaus, AM, Brazil. *Interface (Botucatu)*. 2020[cited 2021 Mar 26];24(suppl.1):e190622. Available from: <https://www.scielo.br/pdf/icse/v24s1/1807-5762-icse-24-s1-e190622.pdf>
6. Hessels AJ, Paliwal M, Weaver SH, Siddiqui D, Wurmser TA. Impact of Patient Safety Culture on Missed Nursing Care and Adverse Patient Events. *J Nurs Care Qual*. 2019[cited 2020 May 8];34(4):287-94. Available from: [https://journals.lww.com/jncjournal/Fulltext/2019/10000/Impact\\_of\\_Patient\\_Safety\\_Culture\\_on\\_Missed\\_Nursing.2.aspx](https://journals.lww.com/jncjournal/Fulltext/2019/10000/Impact_of_Patient_Safety_Culture_on_Missed_Nursing.2.aspx)
7. Magalhães FHL, Pereira ICA, Luiza RB, Barbosa MH, Ferreira MBG. Clima de segurança do paciente em um hospital de ensino. *Rev Gaúcha Enferm*. 2019[cited 2020 Dec 29];40(esp):e20180272. Available from: <https://www.scielo.br/pdf/rgenf/v40nspe/1983-1447-rgenf-40-spe-e20180272.pdf>
8. Carvalho REFL. Adaptação transcultural do safety attitudes questionnaire para o Brasil - questionário de atitude de segurança [tese]. Ribeirão Preto (SP): Escola de Enfermagem de Ribeirão Preto, Universidade de São Paulo; 2011.
9. Demurtas J, Marchetti P, Vaona A, Veronese N, Celotto S, Deilkås EC, et al. Patient safety culture in Italian out-of-hours primary care service: a national cross-sectional survey study. *BJGP Open*. 2020[cited 2021 Mar 29];4(5). Available from: <https://bjgpopen.org/content/bjgpoa/4/5/bjgpopen20X101098.full.pdf>
10. Ramos CFV, Araruna RC, Lima CMF, Santana CLA, Tanaka LH. Práticas educativas: pesquisa-ação com enfermeiros da Estratégia de Saúde da Família. *Rev Bras Enferm*. 2018[cited 2020 Dec 30];71(3):1144-51. Available from: [https://www.scielo.br/pdf/reben/v71n3/pt\\_0034-7167-reben-71-03-1144.pdf](https://www.scielo.br/pdf/reben/v71n3/pt_0034-7167-reben-71-03-1144.pdf)
11. Ministério da Saúde (BR). Portaria nº 2.436, de 21 de setembro de 2017. Aprova a Política Nacional de Atenção Básica, estabelecendo a revisão de diretrizes para a organização da Atenção Básica, no âmbito do Sistema Único de Saúde (SUS). *Diário Oficial da União*. 2017[cited 2021 Mar 30]. Available from: [https://bvsms.saude.gov.br/bvs/saudelegis/gm/2017/prt2436\\_22\\_09\\_2017.html](https://bvsms.saude.gov.br/bvs/saudelegis/gm/2017/prt2436_22_09_2017.html)
12. Vasconcelos PF, Freitas CHA, Jorge MSB, Carvalho REF, Freire VECS, Araújo MFM, et al. Safety attributes in primary care: understanding the needs of patients, health professionals, and managers. *Public Health*. 2019[cited 2020 May 10];17:31-40. Available from: <https://www.sciencedirect.com/science/article/abs/pii/S0033350619301027>
13. Marchon SG, Mendes Junior WV. Tradução e adaptação de um questionário elaborado para avaliar a segurança do paciente na atenção primária em saúde. *Cad Saúde Pública*. 2015[cited 2020 Apr 25];31(7):1395-402. Available from: <https://www.scielo.br/pdf/csp/v31n7/0102-311X-csp-31-7-1395.pdf>
14. Samardzic MB, Wijngaarden JDV, Doorn CMD. Safety culture in long term care: a cross-sectional analysis of the Safety Attitudes Questionnaire in Nursing and residential homes in the Netherlands. *BMJ Qual Saf*. 2016[cited 2020 Apr 20];25(6):424-31. Available from: <https://qualitysafety.bmj.com/content/25/6/424.long>. doi: 10.1136/bmjqs-2014-003397
15. Merino-Plaza MJ, Carrera-Hueso FJ, Roca-Castelló MR, Morro-Martín MD, Martínez-Asensi A, Fikri-Benbrahim N. Relationship between job satisfaction and patient safety culture. *Gac Sanit*. 2018[cited 2020 May 07];32(4):352-61. Available from: <https://www.gacetasanitaria.org/es-linkresolver-relacion-entre-satisfaccion-laboral-cultura-S0213911117301024>
16. Bracarense CF, Costa NS, Duarte JMG, Ferreira MBG, Simões ALA. Qualidade de vida no trabalho: discurso dos profissionais da Estratégia de Saúde da Família. *Esc Anna Nery Rev Enferm*. 2015[cited 2020 May 10];19(4):542-8. Available from: [https://www.scielo.br/scielo.php?pid=S1414-81452015000400542&script=sci\\_abstract&lng=pt](https://www.scielo.br/scielo.php?pid=S1414-81452015000400542&script=sci_abstract&lng=pt)
17. Kirk VG, Kania-Richmond A, Chaput K. Executive Coaching for Leadership Development: experience of academic physician leaders. *Healthc Q*. 2019[cited 2020 May 10];22(1):54-9. Available from: <https://www.longwoods.com/content/25835>
18. Keyko K, Cummings GG, Yonge O, Wong CA. Work engagement in professional Nursing practice: a systematic review. *Int J Nurs Stud*. 2016[cited 2020 May 08];61:142-64. Available from: <https://www.sciencedirect.com/science/article/abs/pii/S0020748916300736?via%3Dihub>
19. Soratto J, Fernandes SC, Martins CF, Tomasi CD, Zanini MTB, Fertonani HP. Aspectos geradores de satisfação e insatisfação dos profissionais da estratégia saúde da família de um município de pequeno porte da região sul do Brasil. *Rev CEFAC*. 2018[cited 2020 Apr 20];20(1):69-78. Available from: [https://www.scielo.br/scielo.php?pid=S1516-18462018000100069&script=sci\\_arttext&lng=pt](https://www.scielo.br/scielo.php?pid=S1516-18462018000100069&script=sci_arttext&lng=pt)
20. Soratto J. Satisfação e insatisfação no trabalho de profissionais da Estratégia Saúde da Família [tese]. Florianópolis (SC): Universidade Federal de Santa Catarina; 2016.
21. Silva TO, Bezerra ALQ, Paranaguá TTB, Teixeira CC. O envolvimento do paciente na segurança do cuidado: revisão integrativa. *Rev Eletrônica Enferm*. 2016[cited 2020 Dec 29];18:e1173. Available from: <https://revistas.ufg.br/fen/article/view/33340>
22. Nsamenang SA, Hirsch JK. Positive psychological determinants of treatment adherence among primary care patients. *Prim Health Care Res Dev*. 2015[cited 2020 Apr 15];16(4):398-406. Available from: [https://www.cambridge.org/core/product/identifier/S1463423614000292/type/journal\\_article](https://www.cambridge.org/core/product/identifier/S1463423614000292/type/journal_article)

