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Application of the Primary Care Safety Questionnaire to primary health care professionals: cross-sectional study

Aplicação do Primary Care Safety Questionnaire aos profissionais da atenção primária à saúde: estudo transversal

Aplicación del Primary Care Safety Questionnaire a los profesionales de atención primaria: estudio transversal

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ABSTRACT

Objective: To evaluate the perception of the patient safety climate in primary health care associated with professional categories, health centers, and previous experience of participation in the National Program for the Improvement of Access and Quality of Primary Care.

Method: Cross-sectional study with 119 health professionals in a city in the interior of the state of São Paulo, between August 2019 and February 2020, using the Brazilian version of the Primary Care Safety Questionnaire.

Results: The safety climate was favorable, with better evaluation for communication and leadership and worse evaluation for workload. There were differences among health centers regarding teamwork (p=0.0010), workload (p=0.0001) and total score (p=0.0185). Professionals with previous experience participating in the improvement program have a better perception of the climate.

Conclusion: The perception of climate did not differ between professional categories but differed between health centers.

Descriptors: Organizational culture. Patient safety. Primary health care. National health strategies. Patient care team.

RESUMO

Objetivo: Avaliar a percepção do clima de segurança do paciente na atenção primária à saúde associada às categorias profissionais, centros de saúde e experiência prévia de participação no Programa Nacional de Melhoria do Acesso e da Qualidade da Atenção Básica.

Método: Estudo transversal com 119 profissionais de saúde em um município do interior do estado de São Paulo, entre agosto de 2019 e fevereiro de 2020, com a versão brasileira do *Primary Care Safety Questionnaire*.

Resultados: O clima de segurança foi favorável, com melhor avaliação para comunicação e liderança e pior avaliação para carga de trabalho. Houve diferença entre centros de saúde quanto ao trabalho em equipe (p=0,0010), carga de trabalho (p=0,0001) e escore total (p=0,0185). Os profissionais com experiência prévia de participação no programa de melhoria possuem melhor percepção do clima.

Conclusão: A percepção do clima não diferiu entre as categorias profissionais, mas diferiu entre centros de saúde.

Descritores: Cultura organizacional. Segurança do paciente. Atenção primária à saúde. Estratégias de saúde nacionais. Equipe de assistência ao paciente.

RESUMEN

Objetivo: Evaluar la percepción del clima de seguridad del paciente en atención primaria asociada a las categorías profesionales, los centros sanitarios y la experiencia previa de participación en el Programa Nacional de Mejora del Acceso y la Calidad de la Atención Primaria.

Método: Estudio transversal con 119 profesionales de la salud en un municipio del estado de São Paulo, entre agosto de 2019 y febrero de 2020, utilizando la versión brasileña del *Primary Care Safety Questionnaire*.

Resultados: El clima de seguridad fue favorable, con mejor valoración para comunicación y liderazgo y peor valoración para carga de trabajo. Hubo diferencias entre centros de salud en cuanto al trabajo en equipo (p=0,0010), la carga de trabajo (p=0,0001) y la puntuación total (p=0,0185).Los profesionales con experiencia previa de participación en el programa de mejora tienen una mejor percepción del clima.

Conclusión: La percepción del clima no difería entre categorías profesionales, pero sí entre centros sanitarios.

Descriptores: Cultura organizacional. Seguridad del paciente. Atención primaria de salud. Estrategias de salud nacionales. Grupo de atención al paciente.

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INTRODUCTION

In the Global Patient Safety Action Plan 2021-2030, the World Health Organization (WHO) highlights that, although this topic is commonly associated with the hospital setting, unsafe care is a problem for the entire health system. Among the strategic objectives of this plan, the WHO emphasizes that patient safety must be a priority in all clinical processes and scenarios, and one of the suggested actions refers to the promotion of a safety culture in primary care[1].

The safety culture refers to all values and actions of an organization aimed at patient safety. The culture assessment is carried out through climate, which concerns the professional's perception of how safety is managed in the organization[2]. The measurement of safety climate can vary at a given moment concerning organizational aspects, work unit and interpersonal relationships, being more sensitive to changes and improvements made in favor of safety[2].

Since 2013, the National Patient Safety Program has called attention to the expansion of this topic in all services of the Health Care Network (HCN), including Primary Health Care (PHC)[3]. Evaluating the safety climate in the context of PHC is relevant since it constitutes the main gateway to the healthcare system, when individuals, families and communities seek assistance and are faced with various needs and problems of different complexities[4]. The National Primary Health Care Policy (*Política Nacional da Atenção Básica* – PNAB) emphasizes that actions and measures regarding patient safety are the responsibility of all members of the multiprofessional team[4].

Among the initiatives in primary care, the National Program for the Improvement of Access and Quality of Primary Care (PMAQ-AB), with the objective of offering a quality standard and innovation in management and expanding the population's access to healthcare services in the context of the Family Health Strategy (FHS)[5], was recently restructured and named Prevent Brazil Program (*Programa Previne Brasil*), considered a new PHC financing model[6]. The PMAQ-AB stood out as one of the largest pay-for-performance programs in the world and achieved effective results in improving the work process and infrastructure[7], strengthening the culture of assessment in primary care[8].

In the PHC environment of practice, the most common types of incidents related to patient safety are diagnostic and medication errors, and among the contributing factors is the lack of communication between the team[9,10]. International studies aimed at primary care evaluated the safety climate using the Primary Care Safety Questionnaire (PC-SafeQuest) and identified that the safety and learning system[11], teamwork and leadership were factors that positively influenced the perception of the safety climate[11–13]. In turn, communication – despite being evaluated positively – did so to a lesser extent, and workload was the worst evaluated factor[11–13]. In addition, these studies showed differences in the perception of the climate between professionals with management positions and those who do not hold a management position[11–13].

National studies that assessed the safety climate in PHC using another instrument found differences in the perception of the climate in relation to professional categories. In these research, physicians reported a more positive perception of the climate in relation to other team members[14], while community health agents (CHA) demonstrated a negative perception of the safety culture in relation to team members[15]. Differences in the perception of climate were also identified among members of the Family Health team (FHt) and Primary Care team (PCt)[16]. However, it is worth noting the gap in studies in Brazil that assessed the safety climate in PHC, either using the PC-SafeQuest or other specific instruments.

The periodic assessment of the safety climate in the perception of healthcare professionals is a fundamental strategy to support improvements in work processes, through the identification and resolution of gaps and weaknesses in the team[17]. Implementing and strengthening safety actions in PHC constitute challenges for management, healthcare professionals, users and families, in order to converge with the fourth strategic objective of the WHO Global Action Plan[1].

When considering the impact of care provided in the context of PHC for the health of individuals, families, and community, as well as the challenges faced and the incipient safety culture in this scenario, initiatives such as climate assessment should be valued by managers to implement actions that promote patient safety, enhance the well-being of professionals and ensure safe care. In this study, the following research question was established: "Do professionals differ in the perception of safety climate among health centers (HC)?", with the objective of evaluating the perception of the patient safety climate in primary health care associated with professional categories, health centers, and previous experience of participation in the National Program for the Improvement of Access and Quality of Primary Care (PMAQ-AB).

METHOD

This is a quantitative and cross-sectional study that complied with the recommendations of Strengthening the reporting of observational studies in epidemiology (STROBE) [18]. The study was conducted in a large city in the interior of the state of São Paulo, considering 66 HC divided into five health districts and whose sizing indicates 1 HC for every 20,000 inhabitants. The management of these health centers is municipal, and the teams are composed according to the FHt, PCt and Community Health Agents Strategy (CHAS) models.

According to the population registered in the territory, the number of teams for each HC varies from two to five teams, so that each PCt or FHt is responsible for up to 4 thousand people. In the studied municipality, the units have professionals from the Expanded Family Health and Primary Care Center (NASF-AB) because they include other professional categories or specialties in the minimum team, such as gynecologists/obstetricians, pediatricians, psychiatrists, psychologists, occupational therapists and pharmacists[4].

The municipality's health districts have different populations and amounts of HC. Among the five districts, the object of study was set as the one used in practical teaching activities in the training of health professionals, consisting of 12 HC and which has the third largest population with about 230,370 inhabitants. Thus, the most populous HC were selected, named here as: HC/A, HC/B and HC/C, and these three health centers were selected because they also have the largest number of professionals, totaling 181 health workers (HC/A=66, HC/B=60 and HC/C=55), among which are physicians, nurses, nursing assistants and technicians, pharmacists, pharmacy technicians, oral health assistants and/or technicians, surgeons- dentists and CHA.

The three health centers are in urban areas, but have neighborhoods situated in rural areas. As for the other HCN services, the HC/A has an Emergency Care unit in its territory and the HC/B is close to a large public teaching hospital. The HC/C has a Psychosocial Care Center III and a municipal public hospital in nearby territories. Still, the HC/A is in a more vulnerable territory in relation to the others, while the HC/B and HC/C have in their territory more privileged neighborhoods and with less dependent on the Unified Health System (*Sistema Único de Saúde* – SUS).

The sample calculation was defined according to the methodology to estimate a proportion in a population of finite size[19]. A proportion equal to 0.5 was considered, whose value represents the maximum variability of the binomial distribution, a sampling error of 5% and a significance level of 5%, obtaining a minimum sample of 118 professionals. The sample was proportionally divided according to the number of professionals in each of the health centers and professional categories. As an inclusion criterion, to participate in the study, professionals who had worked for at least six months in the HC were included, and those who were absent due to vacation or leave were excluded.

Data collection was conducted between August 2019 and February 2020. Professionals who met the inclusion criteria were approached at their workplaces, informed about the objective of the study, and had their doubts clarified. After agreeing to participate in the study, the Free and Informed Consent Form (FICF) was signed. Then, all received the envelope with the instrument that was filled out individually in a private place, available for the researchers at the HC in case of doubts.

Personal and professional data were used, and also the Brazilian version of the Primary Care Safety Questionnaire (PC-SafeQuest)[20], all were in a printed, self-fillable format, and the estimated time for completion was approximately 40 minutes. Personal variables were age, gender and marital status. The professional variables included: professional category, time working in the current team and experience in the PHC, weekly workload and whether they had another employment relationship. Other information considered in this form was the type of professional's team, whether the team was complete or not, and whether he/she had previous experience participating in the PMAQ-AB.

The PC-SafeQuest was developed[21] and validated for the Brazilian culture[20]to assess the perception of the safety climate specifically in PHC. It has 28 items divided into five dimensions: communication, leadership, workload, teamwork, safety systems and learning.

Response options evaluated on a Likert scale range from one point (not at all) to seven points (completely), and the analysis can be performed by calculating the mean score of the items in each of the dimensions or by the mean of the total score of the PC-SafeQuest[21]. High scores indicate the positive contribution of a certain dimension to the perception of the safety climate[21], indicating that the theme of patient safety is present in the institution's management. For this study, reliability resulted in a Cronbach's alpha of 0.60 for workload, 0.87 for communication, 0.77 for leadership, 0.89 for teamwork and 0.91 for safety systems and learning, which indicates good reliability[22].

The description of quantitative variables was made by calculating the mean, standard deviation (SD), median and interquartile range (IQR) values, and categorical variables by calculating frequencies and percentages. For comparisons between the dimensions of the PC-SafeQuest and the variables of professional categories and HC, the ANOVA model was applied, followed by Tukey's post-test or the Kruskal-Wallis test and Dunn's post-test, according to the data distribution. Comparisons regarding the variables complete team and participation in the PMAQ-AB used the unpaired Student's t test or the Mann-Whitney test, also according to data distribution. For the correlations between the dimensions time of experience in the current team and in the PHC, Spearman's correlation coefficient was applied. Test choices were made according to data distribution, assessed by the Shapiro-Wilk test.

In the analysis of the associations between the sample characterization variables and the HC, Pearson's chi-square test was performed. For all analyses, a significance level of 5% was considered and statistical software SAS version 9.4 and SPSS version 23 were used.

The study complied with all the ethical and legal assumptions established in Resolution No. 466/2012 of the National Health Council. Approval was obtained from the Institution's Research Ethics Committee on July 15, 2019, under opinion 3,454,133.

RESULTS

From the 131 professionals invited to participate in the study, 119 professionals effectively participated, with a response rate of 90.8%. The mean age was 45.0 years (SD=10.8) and, regarding marital status, 71 (59.7%) reported being married or in a stable relationship; 36(30.2%) were single and 12 (10.1%) were separated/widowed. The average time of experience in PHC was 14.1 years (SD= 10.8) and, in the current team, 9.7 years (SD= 8.0). They reported working an average of 34.1 hours (SD=5.8) per week and 98 (82.4%) professionals had only one employment. Further characteristics are shown in Table 1.

Regarding time working in the current team, differences were found between HC (p=0.0053, Kruskal-Wallis test). Dunn's post-test indicated that HC/A (Median = 15.0; IQR= 6.0 – 19.0) and HC/B (Median = 4.4; IQR= 2.5 – 8.8) differ from each other. In order to verify whether there are differences between the professional categories regarding time working in the current team and experience in the PHC context, it was necessary to group the categories into physicians, nursing professionals, PHC and other categories, this the latter being composed of professionals: pharmacist, pharmacy technician, dental surgeon and oral health technician/assistant. When performing the Kruskal Wallis test (p=0.006), statistically significant differences were verified through Dunn's post-test regarding the time of experience in the current team among the CHA (Median = 5.1; IQR= 3.9 – 15.0) and other categories (Median = 7.4 years; IQR = 7.0 – 19.5).

Regarding the perception of the safety climate, the mean and median total score of the PC-SafeQuest was 5.0 (SD=1.0) and 5.0 (IQR= 4.3 – 5.7), respectively. (Table 2).

When comparing the dimensions of the PC-SafeQuest with the cluster of professional categories, complete team and type of team, no significant differences were identified. The comparison of the perception of the safety climate by the professionals among the HC is shown in Table 3.

Correlation analyses between the dimensions of the PC-SafeQuest and the variable time of experience in the current team and in the PHC did not show significant correlations. For the comparison analysis between the perception of the safety climate and previous experience of participating in the PMAQ-AB, only participants with or without previous experience of participating in the PMAQ-AB were considered. Professionals with previous experience had a more positive perception of the safety climate in the workload, teamwork, and safety systems domains and in the total score (Table 4).

Table 1 – Personal and professional characterization of the study participants. São Paulo, Brazil, 2020

Variables	Total (n=119)	Health Center A (n=37)	Health Center B (n=44)	Health Center C (n=38)	p-value
	n(%)	n(%)	n(%)	n(%)	
Gender (n=119)					0.7439*
Female	89(74.8)	26(70.3)	34(77.3)	29(76.3)	
Male	30(25.2)	11(29.7)	10(22.7)	9(23.7)	
Professional Category (n=119)					
Physician	25(21.0)	5(13.5)	12(27.3)	8(21.0)	
Nurse	10(8.4)	4(10.8)	3(6.8)	3(7.9)	
Dental Surgeon	5(4.2)	1(2.7)	2(4.5)	2(5.3)	
Pharmacist	2(1.7)	-	1(2.3)	1(2.6)	
Nursing assistant/ technician	38(32.0)	12(32.5)	13(29.6)	13(34.2)	
Oral Health Assistant/ Technician	6(5.0)	2(5.4)	2(4.5)	2(5.3)	
Pharmacy Technician	3(2.5)	2(5.4)	1(2.3)	-	
Community Health Agent	30(25.2)	11(29.7)	10(22.7)	9(23.7)	
Team type (n=118)					**0.0306***
Family Health Team	86(72.9)	32(88.9)	30(68.2)	24(63.2)	
PCt† + CHAS§	32(27.1)	4(11.1)	14(31.8)	14(36.8)	
Complete team (n=117)					**0.0483***
Yes	51(43.6)	11(29.7)	18(42.9)	22(57.9)	
No	66(56.4)	26(70.3)	24(57.1)	16(42.1)	
Previous participation in PMAQ-AB‖ (n=112)					
Yes	61(54.5)	25(69.4)	8(20.0)	28(77.8)	
No	38(33.9)	9(25.0)	25(62.5)	4(11.1)	
Unaware of the program	13(11.6)	2(5.6)	7(17.5)	4(11.1)	

Source: Authors, 2020.
Notes: *Chi-square test; †PCt = Primary Care Team; §CHAS = Community Health Agents Strategy; ||PMAQ-AB = National Program for the Improvement of Access and Quality of Primary Care; – Numerical data equal to zero not resulting from rounding.

Table 2 – Safety climate by Primary Health Care professionals.São Paulo, Brazil, 2020

PC-SafeQuest Dimensions	Mean	Standard Deviation	Median	IQR*
Communication (n= 117)	5.2	1.3	5.6	4.2 – 6.2
Leadership (n= 113)	5.2	1.4	5.6	4.0 – 6.2
Teamwork (n= 114)	5.0	1.1	5.3	4.1 – 5.7
Safety systems and learning (n= 118)	4.8	1.3	5.0	3.9 – 5.8
Workload (n= 118)	4.3	1.3	4.3	3.3 – 5.0
Total score (n= 108)	5.0	1.0	5.0	4.3 – 5.7

Source: Authors, 2020.
Note: *IQR – Interquartile Range

Table 3 – Comparison of the perception of the safety climate by professionals among the Primary Health Care centers (n=119). São Paulo, Brazil, 2020

PC-SafeQuest Dimension	Health Center A		Health Center B		Health Center C		p-value
	Mean/ Median	SD*/ IQR†	Mean/ Median	SD*/ IQR†	Mean/ Median	SD*/ IQR†	
Workload	4.1§	1.2	3.9‖	1.3	5.0§‖	1.1	**0.0001**‡
Communication	5.8	4.7-6.1	4.8	4.0-6.0	5.7	4.6-6.6	0.1540¶
Leadership	5.9	4.2-6.8	5.4	4.0-6.0	5.4	3.8-6.6	0.1171¶
Teamwork	5.4**	4.7-5.9	4.6**††	3.7-5.3	5.5††	4.6-6.3	**0.0010**¶
Safety systems and learning	5.4	4.8-5.9	4.8	3.6-5.4	5.1	3.5-5.9	0.0583¶
Total score	5.5**	4.8-5.8	4.8**	3.9-5.4	5.1	4.3-6.0	**0.0185**¶

Source: Authors, 2020.
Notes: *SD = Standard Deviation; †IQR = Interquartile range; ‡ANOVA test – comparisons based on mean and standard deviation; Significant Tukey post-test: §HC/A x HC/C; ‖HC/B x HC/C; ¶Kruskal-Wallis test – comparisons based on median and HC;Significant Dunn's post-test: **HC/Ax HC/B; ††HC/B x HC/C; **HC/Ax HC/B

Table 4 – Comparison between the perception of the safety climate by professionals and previous experience of participating in the PMAQ-AB. São Paulo, Brazil, 2020

PC-SafeQuest Dimensions	Participation in the PMAQ-AB*	n	Mean/ Median	SD/ IQR	p-value
Workload (n= 98)	Yes	60	4.6	1.3	**0.0061**†
	No	38	3.9	1.1	
Communication (n= 97)	Yes	60	5.8	4.4-6.2	0.2503§
	No	37	5.0	4.2-6.2	
Leadership (n= 93)	Yes	58	5.5	4.0-6.6	0.4359§
	No	35	5.2	3.8-6.2	
Teamwork (n= 96)	Yes	58	5.6	4.4-6.0	**0.0040**§
	No	38	4.6	3.7-5.3	
Safety systems and learning (n= 98)	Yes	60	5.3	4.1-5.9	**0.0079**§
	No	38	4.8	3.6-5.4	
Total score (n= 90)	Yes	55	5.2	1.0	**0.0152**†
	No	35	4.6	0.9	

Source: Authors, 2020.
Notes: *PMAQ-AB = National Program to Improve Access and Quality of Primary Care;†unpaired Student t test – comparisons based on mean and standard deviation;§Mann-Whitney test – comparisons based on median and IQR. The variation in sample size in the analyses occurred because some items of the PC-SafeQuest were not answered by all participants.

DISCUSSION

The safety climate was evaluated as positive in all domains of the PC-SafeQuest, with communication and leadership being the best evaluated dimensions, and workload the one that was evaluated in the worst scale. The perception of workers did not differ between professional categories, but it did differ between HC regarding teamwork, workload, and the total score.

Most professionals work in FHt and reported that their teams were incomplete, aspects that differed between the HC. The FHt stands out for presenting effective results in the health care of the population when compared to the traditional PCt model[23]. However, it is essential that the multiprofessional team to be appropriate regarding categories and sizing, as these influence the conditions and workload. Such factors are important and recommended for improving the safety culture of health teams[24], resulting in comprehensive and safe health care[3].

The safety climate was positive for all PC-SafeQuest domains as they presented mean values above 4.0 points, which corresponds to 50% of the total score, as well as in international studies that evaluated the safety climate in the PHC context using this instrument[11–13]. It is noteworthy that this result is similar to those found by national studies conducted in PHC that used other instruments[14,16], except for a study in which the safety culture was evaluated as negative[24]. Consequently, it becomes necessary the comparison with studies that used other instruments but that have similarities in aspects of safety climate[17].

In the present study communication was the best evaluated dimension. In studies that used the PC-SafeQuest[11–13] this dimension was also evaluated positively, however with an intermediate score in relation to the others, contrary to other studies that showed lower values for this factor[24,25] from the use of other instruments. One of the explanations for the contribution of communication in the positive perception for the safety climate can be attributed to the items that make up this dimension in the PC-SafeQuest and that address issues of communication between team members and managers.

Effective communication is one of the key elements that contribute to interprofessional practice[26]. In this context, open and non-punitive communication is indispensable for effective and safe care[27], as communication failures are one of the most frequent contributing factors to incidents in the context of PHC[9,10]. In PHC, collective spaces such as interdisciplinary and team meetings, intersectoral meetings and Health Councils, favor communication by promoting the Social Control of Health, the incorporation of surveillance practices, expanded clinical practice, matrix support and constant readjustment of work processes[4].

The leadership dimension contributed to the good evaluation of the safety climate, occupying the second highest score. It should be noted that this dimension was the one with the highest score in studies conducted in Ireland, Scotland and England[11–13]. On the other hand, studies with PHC professionals in Brazil, using other evaluation measures, identified that the dimension of support from leaders and managers is evaluated as weak for the safety culture[14,16,28]. One of the justifications for the positive contribution of leadership, through the PC-SafeQuest, can be attributed to the focus on transparent, open and non-punitive qualified leadership, which ensures a fair and transparent culture to guide and encourage the team[1].

In turn, the workload was the dimension with the least contribution to the positive perception of the safety climate, a result similar to that obtained in Ireland, Scotland, England[11–13]. Work overload is one of the factors related to the unsatisfaction of health workers in the FHS in Brazil[29], evaluated as a necessary aspect for the improvement of the safety culture in PHC[24].

The evaluation between professional categories did not show statistically significant differences. However, a national study identified differences in the perception of safety culture between nurses and CHA, in which nurses have a more positive assessment of the safety culture in relation to CHA[15]. CHA, physicians, and dentists had lower means of positive responses for the dimension support from managers, differing from oral health assistants/technicians and nursing team. In turn, another study identified that physicians had better perceptions of teamwork in relation to other professional categories in PHC[14].

Both teamwork, workload and total score differed between HC. HC/C professionals had a better perception of the safety climate for the workload and teamwork dimensions. A possible explanation for this result is that the professionals of this HC also reported that they worked with the complete team and had previous experience of participation in the PMAQ-AB. However, it should be noted that this relationship was not statistically analyzed in the present study. It is interesting to highlight that teamwork occurs by encouraging social support, communication and collaborative learning among members[27], which is recognized as interprofessional work and which, in the context of PHC, focuses on the user, the family and the community[26].

The HC that had the worst perception of the safety climate for teamwork and workload was the HC/B. This HC also reported working with an incomplete team, less participation and greater lack of knowledge of the PMAQ-AB, in addition to a shorter time working in the current team, results that may be the possible explanation for worse perception for these dimensions in relation to the others. Professionals from this HC/B also had the worst results for the other dimensions of the PC-SafeQuest, which explains the difference between their total score and that of HC/A, which had the best total score among the three HC.

The time of experience in the current team and in the PHC did not result in significant correlations with the dimensions of the PC-SafeQuest. However, another study found that longer time working in the current team was associated with more negative perceptions of the workload and the total safety climate score[12]. A longer experience in PHC was also associated with a worse perception of workload[11], on the other hand, it was associated with a better perception of safety systems and learning[12].

The dimension safety systems and learning contributed to the positive perception of the safety climate, as in other studies, and did not differ between the professional and HC categories[14]. This dimension concerns how the institution prevents, analyzes, and learns from significant events, approaching the concept of organizational learning. Organizational learning is essential for the continuous improvement of processes, at the organizational level or individual work, having as its main means collaborative practice, non-punitive response to error, accountability for performance and attention and prepare to deal with adversities[30].

Professionals that participated in the PMAQ-AB have a more positive perception of the safety climate compared to professionals without previous experience in the dimensions

of workload, teamwork, safety and learning systems and the total score. These results were expected considering that the PMAQ-AB has, among its guidelines the encouragement of a continuous process of improvements involving management, work processes and resolution, in addition to a culture of planning, dealing, and contracting. The elements envisaged for the development of these guidelines in a transversal manner are self-assessment, monitoring, permanent education, institutional support and horizontal cooperation[5], which can favor aspects involved in these climate dimensions.

Although the results of the PMAQ-AB are not uniform in all places in the country[7], a study has shown that the best results with the adoption of this program were achieved in locations with greater demand for improvements, such as the northeast region, contributing to equity[31]. These aspects show the need for reinforcement and investment in Brazilian policies to improve the quality of health care and, consequently, promote user safety[1].

As limitations of this research, there is the cross-sectional study and the scenario addressed, as restricted to one of the five health districts of the municipality and, therefore does not allow the data generalization. For future research, it is recommended to apply the PC-SafeQuest in different PHC practice scenarios in other locations in São Paulo and Brazil.

The results of this study bring important contributions to managers regarding the factors that can influence the perception of the safety climate. With this information, data analysis can show how the climate assessment provides the manager with a diagnosis of the points that need to be strengthened on patient safety in their unit. In addition, the study showed the importance of participation in improvement programs, as these can positively influence the patient's safety climate. This assessment made by the perception of the entire PHC multiprofessional team is a difference that can bring benefits, favoring that all professionals committed to this topic in daily practice. Finally, these findings can provide improvements for nursing and health care management, strengthening the culture of user safety in PHC.

CONCLUSION

This research allowed to conclude that professionals have a positive perception of the safety climate in all dimensions of the PC-SafeQuest, with the highest scores attributed to the communication and leadership dimensions, and the lowest score to the workload. The professionals differed in the perception of the climate among the HC for the workload, teamwork, and total score dimensions, but did not differ between professional categories. Previous experience of participation in the PMAQ-AB influenced the positive perception of the safety climate in the dimensions of workload, teamwork, safety systems and learning, and the total score. The publication of these results is essential for research on patient safety since this is an emerging topic and presents a lack of Brazilian studies on this subject.

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