PATIENT SAFETY CULTURE IN PRIMARY HEALTH CARE

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ABSTRACT: The aim of this study was to analyze the attitudes that demonstrate the safety culture by the professionals of the Family Health Strategy and Community Health Agents Program. The Safety Attitudes Questionnaire was applied with 96 professional of the Nursing Team and Community Health Agents in Florianopolis city, in order to evaluate nine safety attitudes. Teamwork Climate, Working Conditions, Communication and Perceptions of Management presented a p-value ≤0.05, showing significance for the patient safety culture. However, these same four safety attitudes were assessed differently by the Community Health Agents in relation to the nurses and nursing technicians. In the sample analyzed, the attitude Patient Safety was considered the most important by the three professional categories, and the variable with less relevance for these categories was the Error attitude.

DESCRIPTORS: Culture. Safety. Primary healthcare. Nursing team.

CULTURA DA SEGURANÇA DO PACIENTE NA ATENÇÃO PRIMÁRIA À SAÚDE

RESUMO: O objetivo foi analisar as atitudes que evidenciam a cultura da segurança do paciente pelos profissionais das equipes da Estratégia de Saúde da Família e do Programa de Agentes Comunitários de Saúde. Aplicou-se o questionário de Atitudes de Segurança, com 64 perguntas, a uma amostra de 96 profissionais da equipe de enfermagem e agentes comunitários de saúde na cidade de Florianópolis-SC, a fim de avaliar nove atitudes de segurança. As atitudes Cultura do Trabalho em Equipe, Condições de Trabalho, Comunicação e Gerência do Centro de Saúde tiveram p-Valor ≤0,05, evidenciando-se como atitudes significativas da cultura da segurança do paciente. Contudo, essas mesmas quatro atitudes de segurança foram avaliadas de forma diferente pelos agentes comunitários de saúde em relação aos enfermeiros e técnicos de enfermagem. Na amostra analisada das três categorias profissionais, a atitude considerada de maior importância foi a Segurança do Paciente, já a variável com menor relevância para essas categorias foi a atitude Erro.

DESCRITORES: Cultura. Segurança. Atenção primária à saúde. Equipe de enfermagem.

CULTURA DE SEGURIDAD DEL PACIENTE EN ATENCIÓN PRIMARIA DE SALUD

RESUMEN: El objetivo fue analizar actitudes que demuestran cultura de seguridad de pacientes por los profesionales de la Estrategia de Salud de Familia y el Programa de Agentes Comunitarios de Salud. Se aplicó el cuestionario de actitudes de seguridad a una muestra de 96 profissionales de un equipo de enfermaría y PACS de la ciudad Florianópolis, con el fin de evaluar nueve actitudes de seguridade. Cultura del trabajo en equipo, Condiciones de trabajo, Comunicación y Gestión del Centro de Salud tenía un valor de p≤0,05, son actitudes significantes para la cultura de seguridad del paciente. Sin embargo, estos mismos cuatro actitudes de seguridad se evaluaron de manera diferente por los trabajadores de salud comunitarios en relación con las enfermeras y técnicos de enfermería. En la muestra analizada en tres categorías profesionales, la actitud considerada la más importante era la Seguridad del Paciente, como la variable con menor relevancia en estas categorías fue la actitud de Error.

DESCRIPTORES: Cultura. Seguridad. Atención primaria de salud. Grupo de enfermería.

INTRODUCTION

Patient safety is a critical component of healthcare quality. With healthcare organizations continuously working to improve, there is increasing recognition of the importance of a culture of patient safety. Achieving a culture of safety requires an understanding of values, beliefs and standards regarding what is important in an organization and which behavior and attitudes related to patient safety are supported, rewarded and expected.[1]

The analysis of serious accidents in the industry has shifted the regulation and investigation focus from the individual factors to the organizational factors, such as patient safety. The safety culture concept gained attention after the Chernobyl nuclear disaster in 1986 and essentially reflects the attitudes and values of the management and workers related to risk management and safety.[2]

The capacity of an institution to obtain patient safety results can be improved when creating and establishing a culture of safety among its professionals. The biggest challenge in a move to a system of healthcare safety is often cultural. A culture of blame, where mistakes are viewed as personal failures, should be replaced by a culture where mistakes are seen as opportunities to improve the system.[4]

Culture can therefore be defined as the sum of values, experiences, attitudes and practices that guide the behavior of a group. The characteristics of a solid safety culture include a commitment to discuss and learn from mistakes, the recognition of the inevitability of errors, proactive identification of latent threats, and the incorporation of a non-punitive system for reporting and analyzing adverse events.[5]

Studies of safety culture are focused primarily on the investigation of organizational, communication and people skill deficits. Other studies also show the relationship between the safety attitudes and the performance of the team.[6-7] However, the studies have not explored the beliefs, attitudes and behavior of team members in relation to patient safety, nor the physical and psychological impact of the risk of errors or the onus on the perception and the performance of the professionals.[8]

To achieve safety, an informed culture depends on how the leaders at all levels of an organization obtain, use and disseminate information.[9] Consequently, the organizations should evaluate the safety culture at the level of each department or unit, as well as at the organizational level, in order to: identify areas of culture with the need to improve and increase awareness of the concepts of patient safety, to progressively and continually evaluate the effectiveness of the patient safety interventions, and to establish internal and external goals. Therefore, the major challenge in evaluating the culture is to establish a link between the safety culture and the outcomes of the care provided to patients.[3,10]

Primary healthcare is considered to be relatively safe, although incidents do occur in this scenario. The occurrence of incidents in primary healthcare is estimated at between five and 80 times per 100,000 consultations.[11-12] The results of a recent study performed in the Netherlands showed that adverse events with drugs administered in the home were a major cause of acute hospitalizations, with almost 50% of the hospitalizations being potentially avoidable.[13]

Studies related to patient safety are mainly directed toward hospital care, although the majority of patients receive their healthcare in primary care, particularly in countries with a strong and active primary care system.[14-16] It is noteworthy that, in their reports, both the United Kingdom and the United States have excluded primary care from their discussions about patient safety. However, it should be highlighted that the majority of healthcare is developed outside the hospital settings and that many incidents identified in the hospitals originate elsewhere, such as in the primary healthcare.[17] Normally, the evaluation of the patient safety culture is developed through investigations using questionnaires that enquire about the attitudes of the employees and managers regarding safety and the perceptions of how it is prioritized and managed in the work unit or in the entire organization.[2]

In this study, the Safety Attitudes Questionnaire (SAQ) was used, being one of the tools most used to evaluate the safety culture through which healthcare is provided and used to investigate the relationship between the safety culture in healthcare and the outcomes of the patient.[18] The aim of this study was to identify the attitudes of the professionals of the Family Health Strategy (FHS) and Community Healthcare Agent Program (PACS) teams that demonstrate the patient safety culture through the application of the SAQ.

METHODS

This is a prospective cross-sectional study of a quantitative nature. The study population was comprised of a non-probability sample stratified by category. A total of 52 community health agents, 30 nursing technicians and 14 nurses were purposely selected from the FHS and PACS teams from the five Health Centers of the municipality of Florianópolis District Health Center. The inclusion criterion for the study sample was to be in one these professional categories and a member of the FHS or PACS teams.

For this study, all the ethical principles established by Resolution n. 196/96 of the National Health Council were respected, while complying with the Terms of Free Prior Informed Consent (TFPIC) requirements. The study was submitted to the Research Ethics Committee of the Federal University of Santa Catarina, receiving approval under protocol number 0286/09.

The Safety Attitudes Questionnaire data collection instrument was developed by the University of Texas to be used in outpatient clinics. In order to use the SAQ, permission was obtained from the University of Texas to translate, adapt for the Primary Health Units, and apply this questionnaire. The data collection took place in July 2010. During this period, the participants were invited to participate in the study and the instrument was presented to them, together with the terms of consent, an explanation of the study aims and instructions on how to complete the instrument. After a period of 15 to 20 minutes, the participants were asked to place the instrument into an envelope in the office of each Healthcare Centre, thus ensuring the confidentiality of the respondent.

The safety attitudes questionnaire was developed over 15 years ago, to assess the quality of safety and teamwork associated with the standards and individual behavior of the workers, in a given location. The questionnaire contemplates nine attitudes: job satisfaction, working conditions, teamwork climate, communication, management of the healthcare center, patient safety, stress recognition, ongoing education, and error. These attitudes are conceptualized and exemplified in picture 1.

Picture 1 - Definitions of safety attitudes and some examples in the context of the SAQ

Definition of safety attitudes	Examples of items included in each safety attitude
Job satisfaction: positive experience of the work performed.	*This healthcare center is a good place to work.* *I like my job.*
Teamwork climate: Perception of the quality of collaboration among the professionals of the team.	*The physicians and nurses here work together as a well-coordinated team.* *I have the support I need from other personnel to care for patients.*
Working conditions: perception of the quality of the work environment and logistical support.	*Work overload is common in this Healthcare Centre.* *The levels of staffing in this Healthcare Center are sufficient to handle the number of patients.*
Communication: transfer of information and knowledge.	*Guidance is common in this Healthcare Centre.* *All the necessary information for diagnostic and therapeutic decisions is routinely available to me.*
Patient safety: preventing adverse events and improving their outcomes.	*I would feel safe being treated in this Healthcare Center as a patient.* *Patient safety is constantly reinforced as the priority in this Healthcare Center.*
Ongoing education: meeting between the world of education and the world of work.	*Trainees in my discipline are adequately supervised.* *Decision making in this Healthcare Center utilizes input from relevant personnel.*
Management of the healthcare center: management actions.	*Health Centre administration supports my daily efforts.* *I am frequently unable to express disagreement with the administration of this Healthcare Center.*
Stress recognition: recognition of how performance is influenced by stress factors.	*When my workload becomes excessive, my performance is impaired.* *I'm more likely to make errors in tense or hostile situations.*
Error: an event that healthcare professionals can avoid through the adoption of preventive measures.	*Abnormal test results are frequently lost or overlooked.* *I have seen others make errors that had the potential to harm patients.*

Source: Safety Attitudes Questionnaire (Ambulatory Version) University of Texas at Austin, USA. 2003.

Each question is scored between 2 to 10, according to the following: (2) Disagree strongly - represented by the letter A; (04) Disagree slightly - represented by the letter B; (06) Neutral - represented by the letter C; (08) Agree slightly - represented by the letter D; and (10) Agree strongly - represented by the letter E. The exchange of the letters A to E for scores was made at the time of organizing the results, due to the need to transform the results into quantifiable data and thereby measure the patient safety culture.

For the statistical analysis of the data a p-value ≤ 0.05 was considered significant for a confidence interval of 95% among the data identified. Descriptive statistics were used with mean and inferential statistical analysis of ANOVA and Least Significant Difference (LSD) or Fisher with Bonferroni corrections for the establishment of the minimum significant difference between the tests performed. The Microsoft Excel® program was used to carry out these statistical calculations.

RESULTS AND DISCUSSION

The results showed no statistical difference between the three professional categories regarding their perceived attitudes toward safety when analyzed in a general context, i.e., the three professional categories view the attitudes similarly. Figure 1 shows the nine safety attitudes according to the professional categories.

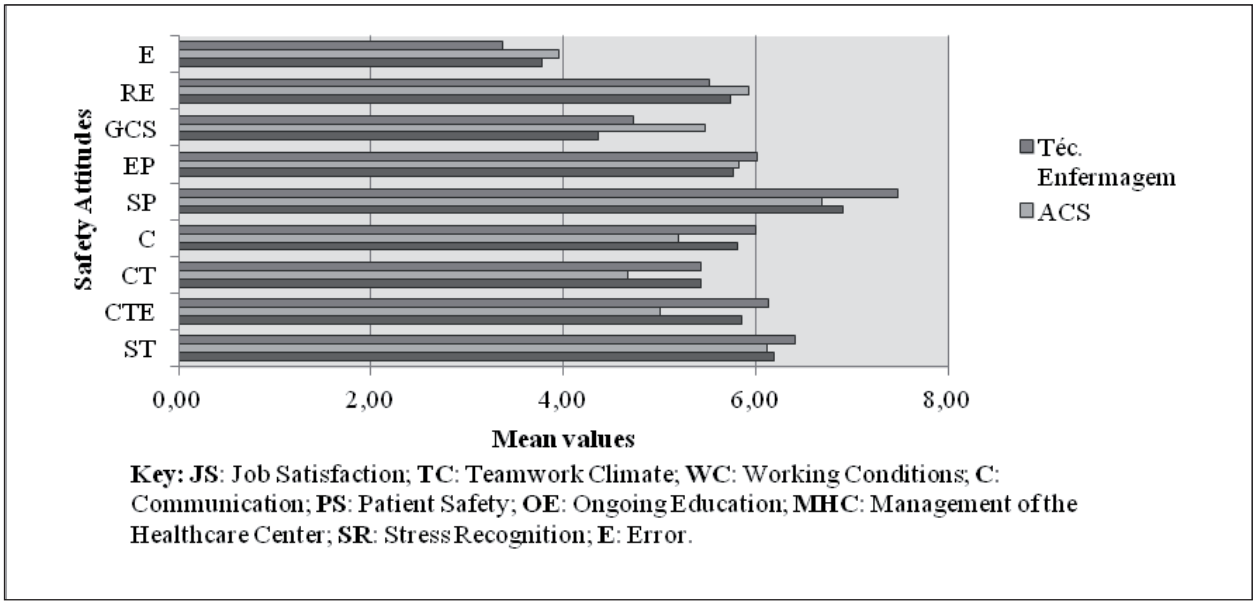

Figure 1 - Mean safety attitude scores by professional category. Florianópolis-SC, 2010

Figure 1 shows that the Patient Safety attitude achieved the highest mean (Mean of CHAs: 6.69; Nursing Tec: 7.48; and Nurses: 6.90) among the three evaluated categories. Therefore, it can be said that it is considered the most important attitude for this group of professionals. In contrast, the mean of the Error attitude (Mean of CHAs: 3.95; Nursing Tec: 3.36; and Nurses: 3.77) was the lowest among them all, therefore, it can be inferred that Error was similarly considered by the three categories to be less relevant.

By analyzing these statements it is possible to observe that the group identified error as an attitude less relevant to the culture of patient safety. In a certain way, error is still very much associated with guilt, a punitive work environment, and a culture of thinking that the errors caused by the healthcare provider are the result of carelessness. A search revealed that only 2 to 3% of the major errors are reported through the information systems and that healthcare professionals often report only what they can not hide.[19]

In this case, the literature states that "avoiding blame" is one of the most complex issues to be investigated in the safety field and brings a new concept of a "culture of justice" as a way to achieve the appropriate focus on the "avoidance of blame". A culture of justice distinguishes between: "human error" (inevitable and managed through changes to the systems); "risky behavior" (such as the creation of shortcuts); and "reckless behavior" (a conscious substantial and

unreasonably risky act), which is reprehensible and for which the individual should be held accountable.[20] Thus, working in teams regarding error and guilt can be an alternative to modify and transform the error into an opportunity to discuss and develop critical thinking about the care actions and the attitudes toward their own errors and the errors of colleague, i.e., to perceive it as a learning opportunity to prevent new events related to the same cause.

The ANOVA test was used in the data analysis to evaluate the significant differences between the safety attitudes identified in this study. To evaluate the results, the data from the three professional categories - nurses, nursing technicians and Community Health Agents (CHAs) were used.

The working conditions, teamwork climate, communication and management of the healthcare center variables obtained p-values £0.05, i.e., they were significant, demonstrating their relationship with the patient safety culture. The other attitudes, job satisfaction (p-value: 0.50), patient safety (p-value: 0.14), ongoing education (p-value: 0.88) and recognition of stress (p-value: 0.50), presented p-values greater than the confidence interval established for the study.

For the group analyzed, the teamwork climate is one of the attitudes that demonstrate the patient safety culture. Table 1 shows that there is a greater difference between the means in relation to the CHAs. This data enables the inference that this category perceived the attitudes differently from the other categories. In this sense, it is important to emphasize that the CHAs develop most of their activities directly in the community and in the home of the patient, having less contact with the other professionals, which would justify their different perception of teamwork. In contrast, the other professionals share the same space for a large part of their working day.

Table 1 - Final model for the analysis of variance of the patient safety attitudes. Florianópolis-SC, 2010

Variables	Sum	Mean	Variance	F	p-value
Working conditions					
CHA	243	4.67	1.869	4.283	0.017
Nursing Tec.	163	5.43	1.145		
Nurse	75.90	5.42	1.508		
Teamwork climate					
CHA	260.17	5.00	2.725	6.035	0.003
Nursing Tec.	184.00	6.13	1.606		
Nurse	81.87	5.85	1.443		
Communication					
CHA	270.37	5.20	1.384	6.375	0.003
Nursing Tec.	179.79	5.99	0.595		
Nurse	81.29	5.81	0.640		
Management of the healthcare center					
CHA	284.50	5.47	3.064	3.027	0.053
Nursing Tec.	141.83	4.73	3.388		
Nurse	61.00	4.36	2.863		
Job satisfaction					
CHA	308.10	5.93	2.701	0.692	0.503
Nursing Tec.	165.56	5.52	1.100		
Nurse	80.22	5.73	3.337		
Patient safety					
CHA	348.00	6.69	2.967	1.962	0.146
Nursing Tec.	224.33	7.48	3.032		
Nurse	96.67	6.90	3.118		

Variables	Sum	Mean	Variance	F	p-value
Ongoing education					
CHA	302.67	5.82	3.322	0.127	0.881
Nursing Tec.	180.33	6.01	3.881		
Nurse	80.67	5.76	3.324		
Recognition of stress					
CHA	308.10	5.93	2.701	0.692	0.503
Nursing Tec.	165.56	5.52	1.100		
Nurse	80.22	5.73	3.337		
Error					
CHA	270.37	5.20	1.384	6.375	0.303
Nursing Tec.	179.79	5.99	0.595		
Nurse	81.29	5.81	0.640		

Furthermore, the CHAs constitute part of the Family Health Strategy team and, through the activities they perform, contribute to the work of the team. Teamwork is to work with different people, who posses different skills and knowledge, in order to manage a common problem. For teams to work at their best, all members must understand the skills and capabilities of each of their colleagues.[21] A meta-analysis study that evaluated teamwork performance versus individual performance concluded that teamwork results in higher productivity. The authors also concluded that those working in teams have higher levels of self-esteem, psychological well-being and social support. Therefore, high quality teamwork leads to changes which improve patient safety and patient outcomes.[21]

Communication, one of the attitudes that also demonstrates the patient safety culture, is often a resource to prevent threats to patient safety. The adverse event reports showed that, in Germany 15% of all the events were directly related to the problems of communication between the caregivers and patients or within the team, and that communication was a contributing factor in more than 50% of the cases. In Australia, communication problems were one of the four main categories associated with adverse events.[22]

The Working Conditions variable, which was found to be significant in the results of this study, considers issues such as: *work overload is common in this Healthcare Centre* and *the number of professionals in this Healthcare Centre is sufficient to meet the number of patients.* In these excerpts from the statements of the participants, it was possible to evaluate the working conditions related to work overload, an insufficient number of people to meet the demand in the Healthcare Centers and the lack of material, consumable and supply resources, i.e., factors that compromise the quality of care.

One study found that for every patient added to the average workload of the nurse, there was a 7% increase in the mortality rate of patients, while burnout and dissatisfaction of the nurses increased by 23% and 15%, respectively.[20] It has become increasingly challenging for nurses to consistently provide safe, high quality care to the patient, especially due to the volume of unstructured, heterogeneous and disintegrated information that permeates the care, as well as the numerous time demands for adequate clinical evaluations required in the healthcare.[23]

Therefore, it was considered that the nursing team has a different perception to the CHA because it is nurses who are directly affected by the lack of material, supply and human resources. The nursing professionals also cover the need for human resources in the various sectors of the Healthcare Centre, which ends up creating work overload, impairing the conditions of the work to be performed.

The analysis of the means of the concepts provided by the study participants is presented in table 1. Table 2 shows the differences between the means of each professional category. These differences appear in the intervals of the LSD test, confirming the significance of the F test performed using ANOVA, presented in table 1.

Table 2 - Presentation of the data from the LSD test with Bonferroni correction for safety attitudes. Florianópolis-SC, 2010

Evaluation between the categories	Working conditions		Teamwork climate		Communication		Management of the healthcare center	
	Difference between the means	LSD	Difference between the means	LSD	Difference between the means	LSD	Difference between the means	LSD
CHA Nursing Tec.	**0.7602**	0.5746	**1.1301**	0.6748	**0.7936**	0.4629	0.7433	0.8063
Nursing Tec. Nurse	0.0115	0.8112	0.2857	0.9526	0.1862	0.6535	0.3706	1.1383
CHA Nurse	-0.7486	0.7546	0.8444	0.8862	-0.6073	0.6079	**1.1140**	1.0589

For the Working Conditions, Teamwork Climate and Communication attitudes, it can be observed that the differences between the means present a value greater than the value of the applied test (LSD), respectively (difference between means: 0.7936; LSD: 0.4629), (difference between means: 0.7602; LSD: 0.5746), (difference between means: 1.1301; LSD: 0.6748). From this, it can be seen that the community health agents and the nursing technicians perceive these attitudes in different ways, while, due to the value of the LSD test being less than the difference between the means, the nurses and nursing technicians perceive these attitudes similarly.

I am frequently unable to express disagreement with the administration of this healthcare center is one of the questionnaire statements that evaluate safety attitudes regarding the Management of the healthcare center, i.e., the management actions of the unit. Table 1 shows that the nurses and nursing technicians have a similar vision regarding the Management of the healthcare center, verified in the analysis due to presenting the smallest significant difference between the means (0.0376). This view can be associated with the representation of the sample, as 80% of the managers of the healthcare centers that participated in the survey were nurses.

When analyzing the LSD between the nurses and the community health agents (1.1140) it was identified that these categories have different perceptions regarding the Management of the healthcare center. This is due to the relationship between these professionals. The CHAs mainly develop their activities in the community and use the Healthcare Center as a reference for the exchange of information with other professionals, i.e., their daily contact with other colleagues is lower. The relationship and communication of the CHA with the nurse supervisor and the manager of the HC are often rigid and hierarchical.

A study of the FHS teams in the state of Goiás revealed that the professionals perceived that the hierarchy is important, however, it should not be too strict as it needs to permit the sharing of activities and obligations, to enable the complementary of the actions developed. The authors emphasized the importance of clarity regarding the limits of the functions of each person, without, however, losing the freedom to discuss and share the decision making responsibilities.[24]

For some authors,[25] the involvement of the manager is demonstrated by their participation in daily operations and by their active safety supervision of the critical operations, "staying in contact" with the risks involved. Furthermore, when there is good communication in relation to safety issues, it is possible to construct a bond of trust at all levels of the organization.

FINAL CONSIDERATIONS

The results reveal that the Working Conditions, Patient Safety Culture, Communication and Management of the healthcare center safety attitudes were the ones that demonstrated the Patient Safety Culture in Primary Health Care. These were perceived differently by the CHAs due to the different impact that this category faces when compared with the other categories analyzed.

From the perspective of the community health agents, nursing technicians and nurses who participated in this study, the safety attitude considered to be of greater importance was Patient Safety; conversely, the variable with the lowest relevance for these categories was the Error at-

titude. These results lead us to reflect that the professionals do not identify error as an attitude of the patient safety culture.

Based on the reflections, it is emphasized that the quality of patient care results from safe care, and for this, an established safety culture is necessary. This culture involves the commitment of the institution and its managers to identifying the need for the safety culture and establishing it as a guideline for the organization, as well as engaging with quotidian situations and seeking to discover the difficulties and challenges that the direct care provider faces daily, in order to create an effective communication channel with the hierarchical levels and allow the construction of trust among all involved.

When bonds of trust are solidified, needs and errors are more clearly exposed by the professionals, and the institution can intervene in the workplace, through ongoing education, empowering the professionals to ensure a safety culture and safer care. Faced with this scenario, the necessity of teamwork with adequate communication among these professionals and with patients is once more highlighted. This would be encouraged through ongoing education and particularly the discussion of errors in order to learn from the situation and not to punish those who made mistakes.

REFERENCES

1. Sorra J, Famolaro T, Dyer N, Nelson d, Khanna K. Hospital survey on patient safety culture. Rockville (US): Agency for Healthcare Research and Quality; 2009.
2. Flin R, Winter J, Sarac C, Raduma M. Human factors in patient safety: review of topics and tools. Report for methods and measures working group of WHO patient safety. Geneva (SW): World Health Organization; 2009.
3. Nieva VF, Sorra J. Safety culture assessment: a tool for improving patient safety in healthcare organizations. Qual Saf Health Care. 2003; 12(Suppl 2):ii17-23.
4. Institute of Medicine (IOM). Crossing the quality chasm: a new health system for the 21st century. Washington, DC (US): National Academy Press; 2001.
5. Helmreich RL, Merritt AC. Culture at work in aviation and medicine. Burlington (US): Ashgate, 2001.
6. Flin R, Fletcher G, McGeorge P, Sutherland A, Patey R. Anaesthetists' attitudes to teamwork and safety. Anaesthesia. 2003 Nov; 58:233-42.
7. Homas EJ, Sherwood GD, Mulhollem JL, Sexton JB, Helmreich RL. Working together in the neonatal intensive care unit: provider perspectives. J Perinatol. 2004 Sep; 24(9):552-59.
8. Woods DM, Holl JL, Shonkoff JP, Mehra M, Ogata ES, Weiss KB. Child-specific risk factors and patient safety. J Patient Saf. 2005 Mar; 1(1):17-22.
9. Edmonson AC. Learning from failure in health care: frequent opportunities, pervasive barriers. Quality and Safety in Health Care. 2004; 13(Suppl II):ii3-9.
10. Colla JB, Bracken AC, Kinney LM. Measuring patient safety climate: a review of surveys. Qual Saf Health Care. 2005 Jun; 14:364-66.
11. Sandars J, Esmail A. The frequency and nature of medical error in primary care: understanding the diversity across studies. Fam Pract. 2003 Jan; 20(3):231-6.
12. Wetzel SR, Wolters R, Van Weel C, Wensing M. Mix of methods is needed to identify adverse events in general practice: a prospective observational study. BMC Fam Pract. 2008 Jun; 9:1-5.
13. Leendertse AJ, Egberts AC, Stoker LJ, Bemt Van Den PM. Frequency of and risk factors for preventable medication-related hospital admissions in the Netherlands. Arch Intern Med. 2008 Set; 168(17):1890-6.
14. Donaldson SL. An international language for patient safety: Global progress in patient safety requires classification of key concepts. Int J Qual Health Care. 2009 Feb; 21(1):1.
15. Starfield B, Shi L, Macinko J. Contribution of primary care to health systems and health. Milbank Q. 2005 Jun; 83(3):457-502.
16. Stelfox HT, Palmisani S, Scurlock C, Orav EJ, Bates DW. The "to err is human" report and the patient safety literature. Qual Saf Health Care. 2006 Jun; 15(3):174-78.
17. Makeham M, Dovey S, Runciman W, Larizgoitia I. Safety patient: review of methods and measures in primary care research [online]. World Health Organization; 2008 [acesso 2010 Fev 21]. Disponível em: http://www.who.int/patientsafety/research/methods_measures/primary_care_ps_research/en/index.html
18. Nordén-Hägg A, Sexton JB, Kälvemark-Sporrong S, Ring L, Kettis-Lindblad A. Assessing safety culture in pharmacies: the psychometric validation of the Safety Attitudes Questionnaire (SAQ) in a national sample of community pharmacies in Sweden. BMC Clin Pharmacol. 2010 Apr 11;10:8.
19. Marx D. Patient safety and the "just culture": a primer for health care executives [online]. New York: Columbia University; 2001 [acesso 2010 Fev 15]. Disponível em: http://www.psnet.ahrq.gov/resource.aspx?resourceID=1582
20. Wachter RM. Compreendendo a segurança do paciente. Porto Alegre (RS): Artmed. 2010.

21. Walshe K, Boaden R. Patient Safety research into practice. New York (NY): Open University Press. 2006.

22. Sandars J, Cook G. ABC of patient safety. Oxford (UK): Blackwell Publishing Ltd; 2007.

23. Baggio MA, Erdmann AL, Sasso GTMD. Cuidado humano e tecnologia na enfermagem contemporânea e complexa. Texto Contexto Enferm [online]. 2010 [acesso 2010 Nov 10]; 19(2):378-85. Disponível em: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-07072010000200021&lng=pt

24. Kell MCG, Shimizu HE. Existe trabalho em equipe no Programa Saúde da Família? Ciênc Saúde Coletiva [online]. 2010 [acesso 2011 Mar 06]; 15 1:1533-41. Disponível em: http://www.scielosp.org/scielo.php?script=sci_arttext&pid=S1413-81232010000700065&lng=pt&nrm=iso

25. Wiegmann DA, Zhang H, Von Thaden TL, Sharma G, Mitchell AA. A synthesis of safety culture and safety climate research. Illinois (US): Aviation Research Lab Institute of Aviation. 2002.

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