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Questionnaire for assessing patient safety culture in emergency services: an integrative review

Instrumentos para avaliação da cultura de segurança do paciente nos serviços de emergência: revisão integrativa

Instrumentos para evaluar la cultura de seguridade del paciente em los servicios de emergencia: uma revisión integradora

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ABSTRACT

Objective: to identify the instruments used to assess patient safety culture in emergency settings. **Method**: an integrative literature review conducted from 2000 to 2018. **Results:** 13 instruments were identified to assess patient safety culture in hospital and pre-hospital emergencies, comprising 12 to 50 questions, grouped from three to 12 dimensions, with dimensions related to teamwork, support, and management actions for patient safety and for continuous process improvement and continuing education. The Emergency Medical Service Safety Attitude Questionnaire, which is exclusive for pre-hospital care, stands out. **Conclusions:** the choice and the best decision regarding the instrument are linked to the objectives, the environment and the population to be investigated, as well as the instrument's reliability.
Descriptors: Safety Management; Organizational Culture; Patient Safety; Process Assessment (Health Care); Emergency Medical Services.

RESUMO

Objetivo: identificar os instrumentos utilizados para a avaliação da cultura de segurança do paciente no cenário da emergência. **Método**: revisão integrativa da literatura referente ao período de 2000 a 2018. **Resultados:** foram identificados 13 instrumentos para avaliar a cultura de segurança do paciente em emergência hospitalar e pré-hospitalar, compreendendo de 12 a 50 questões, agrupadas de três a 12 dimensões, prevalecendo dimensões relacionadas ao trabalho em equipe, apoio e ações da gestão para a segurança do paciente e aquelas com foco na melhoria contínua dos processos e educação permanente. Destaca-se o *Emergency Medical Service Safety Attitude Questionnaire*, exclusivo para o atendimento pré-hospitalar. **Conclusões:** a escolha e a melhor decisão quanto ao instrumento estão atreladas aos objetivos, ao ambiente e à população a ser investigada, bem como à confiabilidade do instrumento.
Descritores: Gestão de Segurança; Cultura Organizacional; Segurança do Paciente; Avaliação de Processos (Cuidados de Saúde); Serviços Médicos de Emergência.

RESUMEN

Objetivo: identificar los instrumentos utilizados para evaluar la cultura de seguridade del paciente en el contexto de urgencias. **Método:** revisión integradora de la literatura para el período 2000 a 2018. **Resultados:** Se identificaron 13 instrumentos para evaluar la cultura de la seguridade del paciente enemergencias hospitalarias y prehospitalarias, que comprenden de 12 a 50 preguntas, agrupadas entres a 12 dimensiones. dimensiones predominantes relacionadas coneltrabajoen equipo, acciones de apoyo y gestión para la seguridaddel paciente y aquellas enfocadas a la mejora continua de procesos y educación permanente. Destaca el Emergency Medical Service Safety Attitude Questionnaire, exclusivo para la atención prehospitalaria. **Conclusiones:** la elección y la mejor decisión en cuanto al instrumento están vinculadas a los objetivos, el entorno y la población a investigar, así como a lafiabilidad del instrumento.
Descriptores: Administación de la Seguridad; Cultura Organizacional; Seguridad del Paciente; Evaluación de Proceso (Atención de Salud); Servicios Médicos de Urgencia.

INTRODUCTION

Patient safety has been given priority in health care systems since a document from the Institute of Medicine (IOM), named *To Err Is Human: Building a Safer Health System*, reported health care errors in the United States of America as the eighth leading cause of death, overcoming deaths from car accidents, breast cancer, and AIDS[1].

Considering this worrying situation, the World Health Organization (WHO) launched, in 2004, the World Alliance for Patient Safety, aiming at mobilizing global efforts to improve the safety of health care for patients in all WHO-member countries, setting an ambitious Patient Safety (PS) agenda[2].

Among the various initiatives, the development of a PS culture in health organizations was stimulated in such a way that their workforce and processes were focused on improving the reliability and safety of patient care[1]. It is believed that knowledge on this topic makes it possible to identify areas for improvement, increase awareness of PS concepts, assess the effectiveness of interventions and their safety over time, contributing to the establishment of internal and external goals[3].

Considered as attitudes and practices of members of an organization, willing to detect errors and learn from them, PS culture provides a professional environment with a spirit of cohesion and a high level of commitment between different professionals, services and departments that constitute the entire care network[4].

PS culture is the result of individual and group values, attitudes, perceptions, skills and behavioral patterns that determine an organization's commitment, style and ability to manage health and safety. Its positive aspect includes communication based on mutual trust through the common perception of the importance of safety and through the confidence in the effectiveness of preventive measures[4].

Different instruments are available to measure PS climate or culture, which vary considerably with regard to general characteristics, dimensions assessed, psychometry performed and applicability[4-6].

PS and safety culture are items that belong with the quality indicators of health services, where the identification of strengths and weaknesses will direct the institution's strategic plan for actions to improve and control the health services offered to the patient[7].

OBJECTIVE

To identify the instruments used to assess PS culture in the context of intra- or pre-hospital emergency, punctuating their content regarding their dimensions and questions.

METHOD

This is an integrative review study conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyzes (PRISMA) methodology[8].

The Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Medical Literature Analysis and Retrieval System online databases (MEDLINE/PubMed) were used, seeking publications from 2000 to 2018. The keywords "patient", "safety", "culture", "climate", "survey", "questionnaires" were used, associated with the Boolean operators AND/OR, constituting the following search syntaxes: MEDLINE - "Patient" AND "safety" AND "culture" OR "climate" [words] AND "survey" AND "questionnaires" AND "emergency medical service"; CINAHL - "patient safety culture" OR "patient safety climate" AND "survey" AND "questionnaires" AND "emergency medical services".

The inclusion criteria were: articles published in Portuguese, English and Spanish, with abstracts available in the selected databases, with access to the full text, of a quantitative nature, addressing PS culture assessment by validated instruments applied to professionals working in hospital and pre-hospital emergency settings. The exclusion criteria were: theses and dissertations, publications referring to conference abstracts, annals, editorials, comments and opinions, reflection articles and literature review.

Each phase of data collection and review was carried out by two authors, independently. In the first stage, a thorough literature search was performed using keywords based on the lexicon of CINAHL and PubMed; in the second stage, titles and abstracts were assessed, excluding those that did not meet the inclusion criteria or presented any exclusion criteria and/or were duplicate publications.

For the third stage, all articles were read in full and 21 articles were selected to compose this study. The search was carried out in October 2018, and the flowchart for search strategy is shown in Figure 1.

The 13 instruments identified in the 21 selected articles will be detailed and discussed according to their sector of application: with the hospital service including emergency sectors, applied exclusively to in-hospital emergency sectors, and to pre-hospital emergency services.

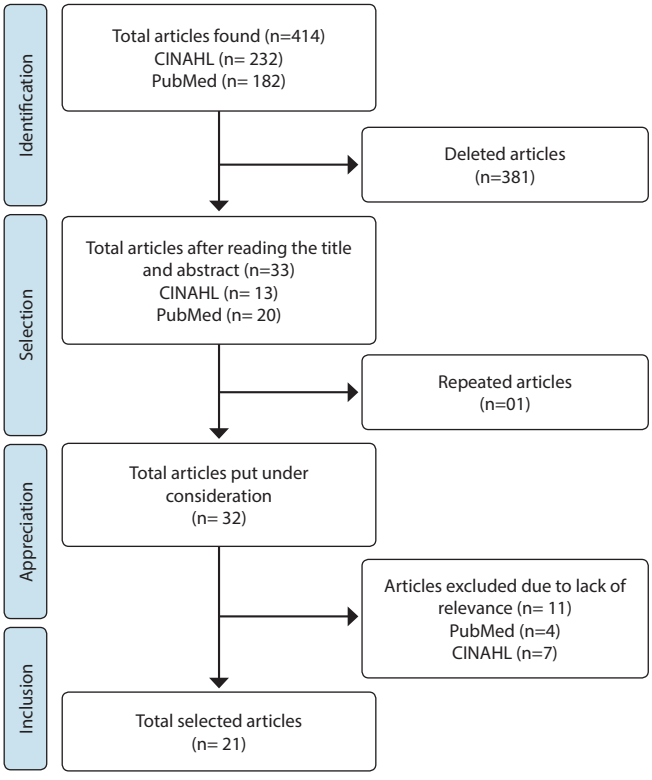

Figure 1 - Flowchart for search strategy

RESULTS

The sample consisted of 21 articles, 16 of which were published in PubMed and five in CINAHL, with the beginning of publications in 2003 (1), and the majority of publications took place between 2012 and 2014 (10). The English language was dominant in 19 of the publications; 11 studies took place in a research environment in the United States of North America; nine were conducted in other countries covering Europe, Asia, and South America.

Thirteen instruments were identified which assessed safety culture with an approach that included in-hospital emergency service (ES), where professionals in this area ranged from four to 11% of the total sample. Of the 13 instruments, three are applicable for pre-hospital ground and air service.

Chart 1 - Distribution of the analyzed studies according to patient safety culture assessment instruments according to country, year of publication, number of questions, dimension, and application setting

Instruments		No. Search/ Country/Year	No. of questions	No. of dimensions	Setting
1	HSOPSC[9-14]	Portugal (2011), Korea (2017), South Korea (2018), Saudi Arabia (2018), Sweden (2013)	42	12	α
	HSOPSC[14]	Iran (2014)	42	12	β
2	SAQ[15]	Brazil (2016)	41	6	α
3	AACN HWEAT and HSOPSC[16]	USA (2018)	20	6	α
4	RPPE[17]	Cyprus (2014)	39	8	α
5	PCQ-F[18]	Sweden (2015)	17	3	δ
6	Safety beliefs and practices conducted by the Air and Surface Transport Nurses Association[19]	USA (2014)	15	4	Ω
7	ED Survey Colorado[20-21]	USA (2012, 2009)	55	9	β
8	ED Survey Indianapolis[20,22]	USA (2012, 2003)	67	10	β
9	EMS Safety Climate Scale[23]	USA (2012)	20	6	Ω
10	EMS-SI[24]	USA (2012)	44	6	Ω
11	Alberta Registered Nurse Survey[25]	Canada (2011)	20	12	α
12	Institute for Healthcare Improvement[26]	USA (2013)	19	4	β
13	EMS-SAQ[27]	USA (2016)	30	6	Ω

Notes: HSOPS - Hospital Survey on Patient Safety; SAQ - Safety Attitude Questionnaire; AACN HWEAT - American Association of Critical-Care Nurses Healthy Work Environment Assessment Tool; EMS-SAQ - Emergency Medical Service Safety Attitude Questionnaire; PCQ-F - Person-centered Climate Questionnaire - Family; RPPE - Revised Professional Practice Environment; PSCS - Patient Safety Culture Survey; ED - Emergency Department; EMS - Emergency Medical Services; EMS-SI - Emergency Medical Services – Safety Inventory; α - in-hospital including emergency services; β - for in-hospital emergencies only; Ω - pre-hospital ground or air services; δ - family members in emergency services.

Most articles used instruments for assessing PS culture with closed-ended questions, with a predominance of use of a Likert-type scale for the degree of agreement, ranging from three to six points. The number of questions in each instrument ranged from 12 to 55, incorporating from three to 12 dimensions. The association of two instruments, with the intention of assessing safety culture and other quality indicators, was present in two surveys. The frequent use of the Hospital Survey on Patient Safety (HSOPS) and Safety Attitude Questionnaire - Emergency Medical Service (SAQ-EMS) for the pre-hospital environment, shown in Chart 1, is recorded.

Instruments and their dimensions

The instruments have important variations in their composition of dimensions and issues. A diversity of dimensions was identified in the instruments, 59 in total, and also the lack of a universal nomenclature or glossary to characterize them. The Hospital Survey on Patient Safety and the Alberta Registered Nurse Survey instruments have the largest number of dimensions[12].

Teamwork, safety perception, job satisfaction and safety climate figured prominently. Some dimensions were less expressive, manifesting in isolation in a single instrument with specific characteristics, exemplified by the team's safety in the instrument Safety beliefs and practices conducted by the Air and Surface Transport Nurses Association (Chart 2).

Chart 2 - Distribution of dimensions/domains according to patient safety culture assessment instruments included in this review

	Dimensions/Domains	Instruments
1	Frequency of reported adverse events	HSOPSC; PSCS
2	Team work	HSOPSC; PSCS; SAQ-EMS; SAQ; RPPE; ED; EMS-SI
3	Expectations and actions of the management/supervision of the unit/service that favor safety	HSOPSC; PSCS
4	Organizational learning/continuous improvement	HSOPSC; PSCS
5	Hospital management support for patient safety	HSOPSC; PSCS
6	Safety perception	HSOPSC; PSCS; SAQ-EMS; SAQ; EMS-SI
7	Error feedback and communication	HSOPSC; PSCS
8	Opening for communications	HSOPSC; PSCS
9	Teamwork between units	HSOPSC; PSCS
10	Staff sizing	HSOPSC; PSCS; AACN HWEAT
11	Problems with shift changes and transitions between units/services	HSOPSC; PSCS
12	Non-punitive response to errors	HSOPSC; PSCS
13	Job satisfaction	SAQ-EMS; SAQ; EMS-SI; Alberta Registered Nurse Survey
14	Safety climate	SAQ-EMS; SAQ; PCQ-F; EMS-SI; Institute for Healthcare Improvement
15	Stress	SAQ-EMS; SAQ; EMS-SI
16	Work conditions	SAQ-EMS; SAQ; EMS-SI

To be continued

Chart 2

	Dimensions/Domains	Instruments
17	True collaboration	AACN HWEAT
18	Skilled communication	AACN HWEAT
19	Effective decision-making	AACN HWEAT
20	Meaningful recognition	AACN HWEAT
21	Authentic leadership	AACN HWEAT
22	Climate of everydayness	PCQ-F
23	Climate of hospitality	PCQ-F
24	Handling disagreement and conflict	RPPE
25	Leadership and autonomy in clinical practice	RPPE
26	Internal work motivation	RPPE
27	Control over practice	RPPE
28	Communication about patient	RPPE
29	Staff relationships with physicians	RPPE
30	Physical environment	ED
31	Staffing	ED
32	Nursing	ED
33	Culture	ED
34	Triage and monitoring	ED
35	Information coordination and consultation	ED
3	In-patient coordination	ED
6	Availability of personal protective gear	EMS
37	Management support	EMS
38	Absence of job hindrances	EMS
39	Feedback/training	EMS
40	Cleanliness of workspace	EMS
41	Minimal conflict/good communication	EMS
42	Crowding	Institute for Healthcare Improvement
43	Communication/coordination of care	Institute for Healthcare Improvement
44	Medication safety	Institute for Healthcare Improvement
45	Quality of care	Alberta Registered Nurse Survey
46	Adverse patient events	Alberta Registered Nurse Survey
47	Experience full time/part time	Alberta Registered Nurse Survey
48	Salary	Alberta Registered Nurse Survey
49	Continuing education	Alberta Registered Nurse Survey
50	Quality assurance program	Alberta Registered Nurse Survey
51	Preceptorship	Alberta Registered Nurse Survey
52	Autonomy	Alberta Registered Nurse Survey
53	Control over practice	Alberta Registered Nurse Survey
54	RN–MD relationships	Alberta Registered Nurse Survey
55	Emotional exhaustion	Alberta Registered Nurse Survey
56	Staff crew safety	Safety beliefs and practices conducted by the Air and Surface Transport Nurses Association
57	Patient safety	Safety beliefs and practices conducted by the Air and Surface Transport Nurses Association
58	Flying status	Safety beliefs and practices conducted by the Air and Surface Transport Nurses Association
59	Close calls, near misses, or safety incidents	Safety beliefs and practices conducted by the Air and Surface Transport Nurses Association

Notes: HSOPS - Hospital Survey on Patient Safety; SAQ - Safety Attitude Questionnaire; AACN HWEAT - American Association of Critical-Care Nurses Healthy Work Environment Assessment Tool; EMS-SAQ - Emergency Medical Service Safety Attitude Questionnaire; PCQ-F - Person-centered Climate Questionnaire - Family; RPPE - Revised Professional Practice Environment; PSCS - Patient Safety Culture Survey; ED - Emergency Department; EMS - Emergency Medical Services; EMS-SI - Emergency Medical Services – Safety Inventory.

It is noteworthy that some instruments have not undergone cross-cultural validation and adaptation to Brazilian Portuguese. Thus, in Chart 2, the dimensions are presented with a proposal for translation into Portuguese and, in parentheses, the writing in English is presented as stated in the instrument.

Instruments and their applicability in intra-hospital, pre-hospital air and ground emergency services

Hospital Survey on Patient Safety Culture (HSOPSC)

Studies that used this instrument applied to health professionals were identified to assess PS culture in in-hospital ES, associated or not with other sectors of assistance and with modification of the acronym for PSCS, identified in the study by Jones, Podilha and Powers[13]. Proposed by the Agency of Health Research and Quality (ARHQ) with the objective of assessing PS culture, it has 42 questions distributed in 12 dimensions. With wide applicability to different hospital environments, this instrument has been translated and validated for Brazilian Portuguese[28]. Its 42 questions are answered on a five-point Likert scale, according to the degree of agreement adopted by the respondent[13,28-29].

Safety Attitudes Questionnaire (SAQ)

This instrument, in its non-specific format, was used in only one of the articles that make up this review, and it was applied to health professionals in the hospital environment. Derived from Sexton[6], the Safety Attitudes Questionnaire - Short Form was created to assess the perceptions of professionals in relation to PS issues; it is quite versatile and has adaptations according to the investigated setting. It has 41 questions, and the answers to each question follow a five-point Likert scale for degree of agreement: strongly disagree, slightly disagree, neutral, slightly agree, totally agree and does not apply. It has been translated and validated for Brazilian Portuguese[30], and it has variations for its use in specific areas of health care[6,30-33].

Association of Critical-Care Nurses (AACN) Healthy Work Environment Assessment Tool (Hweat) and HSOPSC

The instrument called American Association of Critical-Care Nurses (AACN) Healthy Work Environment Assessment Tool (HWEAT)

aims to analyze the healthy work environment. The objective of the article included in this review was to validate the instrument for application in different professional categories, making the correlation between it and the HSOPSC instrument applied to intra-hospital settings, which included ES. AACN HWEAT was developed and validated by American specialists in 2009 and, in 2016, it was assessed for its psychometric properties. It consists of 18 questions and its answers are obtained using a Likert-type scale with three intervals: from 4.00 to 5.00, "excellent"; from 3.00 to 3.99, "good"; and 1.00 to 2.99, "needs to be improved", and the values are expressed by the respondents' average score[16].

Emergency Medical Service Safety Climate Scale – Emergency Medical Service Safety Climate Scale

The Emergency Medical Service Safety Climate Scale is an American instrument that aims to assess the validated safety climate for ES. In the reviewed study, the authors included health professionals working in pre-hospital ES, aiming at exploring the relationship between the perception of safety climate and adherence to safety procedures by the service professionals. The instrument consists of three sessions: the first one involves sociodemographic questions; the second one has questions about adherence to security procedures; and the third one focuses on assessing the safety climate of the emergency medical service, using questions adapted from Gerhson and others[34]. The instrument consists of 20 questions distributed in six domains[23].

Alberta Registered Nurse Survey

In the reviewed article, the authors used data obtained by an instrument applied in North America, Europe and the United Kingdom, involving 60,000 nurses in relation to PS culture and the "Nurse Specialty Subcultures" (NSSCs) theory. The study included nurses working in several hospital sectors, including the emergency room, and the questionnaire called Alberta Registered Nurse Survey, which has 14 pages, with answers given on a Likert scale, yes or no, or multiple choices, was applied[25].

Institute for Healthcare Improvement

In the reviewed study, the authors present an instrument to assess PS which includes questions to contemplate the safety climate involving the multidisciplinary team, applied to the in-hospital pediatric ES. Responses were given on a five-point Likert scale, establishing calculated scores > 75 as positive behavior[26].

Emergency Department Survey – (ED Survey - Colorado)

This instrument was developed by American researchers aiming at assessing the safety climate of an in-hospital ES, applied to health professionals. It involved two phases: a qualitative one, by interview and a focus group, so topics for the construction of the instrument could emerge from the participants; then, obtained information was consolidated and validated to compose the instrument with nine dimensions. Responses were given on a Likert-type scale of agreement at three points[21].

Emergency Department Survey – (ED Survey - Indianapolis)

In the reviewed study, the authors directed the instrument to in-hospital ES, applied to health professionals in order to assess the climate of PS and its association with the care of patients with mental health impairments. It is composed of sociodemographic questions for a multidisciplinary team and 10 dimensions to measure the organizational climate. The 67 questions are divided into dimensions and answers are obtained using a three-point Likert scale[22].

Safety beliefs and practices conducted by the Air and Surface Transport Nurses Association

The authors aimed to describe PS culture in air care in the United States, with a sample of 236 nurses and paramedics, using the computerized questionnaire adapted from the questionnaire Safety beliefs and practices conducted by the Air and Surface Transport Nurses Association. The instrument includes demographic data and 13 questions with a 1- to 5-point Likert scale answer. It also comprises the qualitative empirical approach for narrating experiences in relation to safety issues, considering the exploratory and mixed method. The authors did not assign a "name" or acronyms to the instrument[19,34].

Safety Attitudes Questionnaires – Emergency Medical Service (SAQ-EMS)

This instrument was used in three articles, it aims to assess safety culture in pre-hospital emergency medical services, and it was answered by multidisciplinary teams. It is derived from the SAQ (Safety Attitudes Questionnaire) created by Sexton[6]. To meet the pre-hospital environment, it comprises six domains and its 30 questions are assessed on a five-point Likert scale. Psychometric tests were carried out to validate the instrument and it is part of the media in a manual that is available for use and replication.

Emergency Medical Service – Safety Inventory (EMS-SI)

The authors complement the SAQ-EMS instrument with a new proposal for an instrument called EMS-SI, which also aims to assess general safety, i.e., to go beyond specific care processes. It consists of 44 questions and the answers obtained by health professionals are presented as yes or no and five different degrees of agreement. It was submitted to validation by specialists using the Delphi technique. The authors conclude that the instrument is broad, applicable and under improvement[24].

Revised Professional Practice Environment (RPPE)

The authors of the reviewed article address the proposal to compare two instruments, the RPPE and the SAQ-EMS instrument, as both are applied to the in-hospital ES, involving doctors and nurses, to assess the professionals' perception of their work environment and professional practice. The RPPE scale was specifically designed in 1998, with 39 questions distributed in eight dimensions, with answers punctuated in degree of agreement by a five-point Likert scale[17,35].

Person-Centred Questionnaire – Family (PCQ-F)

Directed to the ES' family context, the Person-Centred Climate Questionnaire - Family (PCQ-F) aims to analyze the aspects of the safety climate of an in-hospital ES perceived by the patients' relatives. Derived from the Person-Centred Climate Questionnarie - Patient (PCQ-P), it is composed of 17 distributed questions. Answers are given on a six-point Likert scale for different degrees of agreement with the questions[18].

DISCUSSION

The concern with PS has intensified worldwide in the face of evidence that the quality and safety of care in hospitals can be improved. In recent years, several initiatives have appeared in search of safe health care. Among these initiatives, there are studies aimed at identifying PS culture in health institutions. Health care has become more complex and requires a greater effort from managers and professionals in the search for quality in health. To speak of PS is to speak of quality of health services[36-38].

In the search for this quality, PS culture demystifies the theory of error and guilt of only one professional, involving questions about the structure and processes involved in the provision of care. In this sense, the word "fault" is replaced by the word "search" in identifying the cause of the side effect and its correlation in process failure.

In this sense, different studies that assess PS culture are available and they vary with respect to their general characteristics, number of questions and dimensions, as well as in relation to the objective of interpretation[16,18,35,39].

Researchers' preference is recognized for the application of the instrument proposed by the Agency for Healthcare Research and Quality (AHRQ), which is the US Federal Agency in charge of improving the quality, safety, efficiency and effectiveness of care provided by healthcare providers. The Hospital Survey on Patient Safety (HSOPS) was developed and validated in 2004 and it is applicable in Brazil[3,15,40].

The Safety Attitudes Questionnaire (SAQ) is a refinement of the Intensive Care Unit Management Attitudes Questionnaire and was derived from a questionnaire widely used in commercial aviation, the Flight Management Attitudes Questionnaire (FMAQ). It was adapted for use in Intensive Care Units (ICU), Surgical Center (CC), in-patient units (infirmary, operating room, ambulatories and emergency). For each version of the SAQ, the content of each item is the same, with minor changes that reflect the clinical area. Using the 60 items, it assesses six dimensions of PS culture, such as teamwork atmosphere, safety climate, job satisfaction, management perceptions, work conditions, and stress recognition[6].

PS culture assessment is presented in parallel to other instruments, with a focus on quality. A study was identified in which multivariate analysis was performed between the dimensions of safety culture and the results in patients on the determinants of: medication error, pressure ulcer, urinary tract infection, bloodstream infection, pneumonia, patient satisfaction, and falls[16-17,24].

It is noticed that the instruments for safety culture assessment are created or modified to meet specific needs, whether they are from the region or country, specific professional group or place of use[41-43].

There are variations and adaptations of these instruments to meet the specificities of each reality and the objects of study. In these variations, it is noticed that there is a growing concern in assessing the involvement of patients and families in addressing PS culture.

It is interesting to note that there is a concern in assessing dimensions such as the relationship between units, transfers and duty shifts. Although incipient, the assessment of these dimensions is of relevance in promoting PS, and points out the need for further studies with this focus[13].

In this assessment series of eighteen years of publications related to the theme, an evolution in using the instruments was noticed. Previously, they aimed to measure safety culture in its presentation as positive, negative and/or neutral, pointing out fragile aspects for improvement, and they evolved into a setting of correlation of these results with different items of health service quality, related to the care outcomes on the patient, team work problems, impact related to innovative practices, and educational programs focusing on safety[44-45].

Study limitations

The limitations of this study comprehend the sample, which includes only studies that are available online and for free. Poorly detailed descriptions by authors in the articles about the instruments they used resulted in an information gap in this study.

Contributions to nursing, health, and public policy

PS culture is an important part of the quality provided in healthcare services, and its assessment may involve team, patient, and family behavior. This study deals with the theme focusing on ES, where attitudes/behaviors are guided within limited timeframes that reflect on the patient's final outcome in a usually chaotic setting.

Knowing about the instruments indicated to assess safety culture in a specific environment contributes to obtain evidence based on reliable instruments and better organization of the services' action plan on the topic.

Politically, PS culture is included in Brazilian assistance policies by ministerial ordinances, and it is reflected in an important source for research in studies involving mainly the Brazilian and worldwide nursing staff.

CONCLUSIONS

PS culture assessment is of great importance for the promotion of health care and its quality. This review presents 13 instruments used in the intra- and pre-hospital emergency setting. The use of HSOPS and SAQ instruments stands out, where the latter poses a possibility of adaptation to pre-hospital settings. It is also pointed out what are the most specific instruments for certain settings, such as air transport services and long-stay institutions.

The quantity and nomenclature of dimensions vary between instruments. The most frequent dimensions involve teamwork,

support, and management actions for PS, as well as those whose focus is on continuous improvement, learning, training and human resources for PS. Certainly, when choosing a safety culture assessment tool, it is recommended to choose one that addresses these aspects.

It is also necessary to consider the instrument's field of application, the population and the objectives of the researcher, who must be aware of the many aspects of ESs and the influence of these dimensions over PS.

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