

Validity, reliability and responsiveness of the Safety Attitudes Questionnaire for Emergency Care Units

Validade, confiabilidade e responsividade do Questionário Atitudes de Segurança para Unidades de Pronto Atendimento

Validez, confiabilidad y responsabilidad del Cuestionario de Actitudes de Seguridad para las Unidades de Atención de Emergencia

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How to cite this article:

Marques CA, Fiorin BH, Portugal FB. Validity, reliability and responsibility of the Safety Attitudes Questionnaire for Emergency Care Units. Rev Gaúcha Enferm. 2023;44:e20210243. doi: <https://doi.org/10.1590/1983-1447.2023.20210243.en>

ABSTRACT

Objective: To evaluate the evidence of validity, reliability and responsiveness of the Brazilian version of the Safety Attitudes Questionnaire for Emergency Care Units.

Method: Methodological study carried out in September 2020 with 46 health professionals from an Emergency Care Unit in the metropolitan region of the State of Espírito Santo. Reliability was verified through the analysis of internal consistency, stability and reproducibility. The validity and responsiveness of the instrument were tested.

Results: Cronbach's alpha=0.85, showing excellent internal consistency. All domains are positively and significantly correlated with each other. In the stability assessment, the domains Job Satisfaction, Management Perception and Working Conditions showed strong correlations.

Conclusion: It is concluded that the instrument presents satisfactory values in the evaluation of psychometric properties, showing evidence of validity, reliability and responsiveness. Thus, it is validated to be reproduced in other Emergency Care Units in Brazil.

Keywords: Validation study. Reproducibility of results. Patient safety. Emergency medical services. Health personnel. Nursing.

RESUMO

Objetivo: Avaliar as evidências de validade, confiabilidade e responsividade da versão brasileira do instrumento Questionário de Atitudes de Segurança para Unidades de Pronto Atendimento.

Método: Estudo metodológico realizado em setembro de 2020 com 46 profissionais de saúde de uma Unidade de Pronto Atendimento da região metropolitana do Estado do Espírito Santo. A confiabilidade foi verificada através da análise de consistência interna, estabilidade e reprodutibilidade. Foram testadas a validade e a responsividade do instrumento.

Resultados: O alfa de Cronbach=0,85, evidenciando ótima consistência interna. Todos os domínios se correlacionam entre si de maneira positiva e significativa. Na avaliação da estabilidade, os domínios Satisfação no Trabalho, Percepção da Gerência e Condições de Trabalho apresentaram fortes correlações.

Conclusão: Conclui-se que o instrumento apresenta valores satisfatórios na avaliação das propriedades psicométricas, mostrando evidências de validade, confiabilidade e responsividade. Dessa forma, está validado para ser reproduzido em outras Unidades de Pronto Atendimento no Brasil.

Palavras-chave: Estudo de validação. Reprodutibilidade dos testes. Segurança do paciente. Serviços médicos de emergência. Pessoal de saúde. Enfermagem.

RESUMEN

Objetivo: Evaluar las evidencias de validez, confiabilidad, y capacidad de respuesta de la versión brasileña del Cuestionario de Actitudes de Seguridad para Unidades de Atención de Emergencia.

Método: Estudio metodológico realizado en septiembre de 2020 con 46 profesionales de la salud de una Unidad de Atención de Urgencias de la región metropolitana del Estado de Espírito Santo. La confiabilidad se verificó a través del análisis de consistencia interna, estabilidad y reproducibilidad. Se probó la validez y la capacidad de respuesta del instrumento.

Resultados: Alfa de Cronbach=0,85, mostrando excelente consistencia interna. Todos los dominios están positiva y significativamente correlacionados entre sí. En la evaluación de la estabilidad, los dominios Satisfacción en el Trabajo, Percepción de la Gestión y Condiciones de Trabajo presentaron fuertes correlaciones.

Conclusión: Se concluye que el instrumento presenta valores satisfactorios en la evaluación de las propiedades psicométricas, mostrando evidencias de validez, confiabilidad y capacidad de respuesta. Por lo tanto, está validado para ser reproducido en otras Unidades de Atención de Emergencia en Brasil.

Palabras clave: Estudio de validación. Reproducibilidad de los resultados. Seguridad del paciente. Servicios Médicos de Urgencia. Personal de salud. Enfermería.

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■ INTRODUCTION

Patient safety – the reduction of risk of unnecessary harm associated with health care to an acceptable minimum – has become a very important issue in recent years. Studies indicate the importance of mitigating patient safety incidents on the grounds that not only patients will be affected by the occurrence of these phenomena, but also the institutions and health professionals involved. Such incidents can have consequences such as prolonged hospital stay; higher treatment and hospital costs; decline in the institution's confidence ratings; weakening of health professional-patient relationship; in addition to psychological, ethical and moral damages⁽¹⁾.

Most studies related to patient safety have been carried out in hospital environments, certainly due to their organizational complexity, the diversity and specificity of sectors and procedures, and the severity of the cases. However, conducting studies on this topic in other healthcare areas, such as Emergency Care Units (UPAs) is essential. The UPAs consist of health establishments of intermediate complexity, coordinated with Primary Care, the Mobile Emergency Care Service – SAMU 192, Home Care and Hospital Care. They are one of the main components of the Emergency Care Network of the Unified Health Care System⁽²⁾.

The work process in the UPAs is dynamic, with a high demand for care, which causes several communication and organization failures; moreover, this process involves the execution of numerous procedures with continuous interruptions of activities. These units are challenging environments where adverse events can be frequent, due to the fast pace of events, the complexity of the cases treated and because professionals simultaneously assist a large number of patients with a lack of clinical information. Furthermore, the work is carried out under constant pressure, a condition that reflects on the quality of the service provided⁽³⁾.

Therefore, assessing the safety climate is a key strategy for monitoring the improvement of the quality of health-related care, as it makes it possible to balance actions between the dimensions that present the greatest weaknesses and those that present the best performances⁽⁴⁾. A strong patient safety culture – and consequently, also, a safety climate – is essential to reduce the occurrence of incidents and adverse events in patient care⁽⁵⁾.

Among the methods used for measuring the safety climate, measurement using scales and questionnaires is the most widely used. These instruments assess the professionals' perception of the teamwork climate, professional satisfaction, working conditions and stressors⁽⁶⁾. However, before applying any scale or questionnaire, researchers must verify the validity and reliability of the instrument assessed. Another important aspect is the cultural context of the location where the instruments will be used, since adaptation of these instruments to the country or city where they will be applied is an essential aspect⁽⁷⁾.

According to the literature, there is no specific instrument validated in Brazil to assess the safety climate in Emergency Care Units⁽⁸⁾. The instrument that is closest to the reality of a UPA, and which was selected for this study, is the Safety Attitudes Questionnaire (SAQ), translated and validated for Brazil in 2012. The instrument has high reliability, with a total Cronbach's alpha of 0.89, and was selected for this study because it is valid and reliable in the assessment of the safety climate in health institutions in the Brazilian context⁽⁹⁾.

The translated and validated version of the Safety Attitudes Questionnaire (SAQ) for Brazil can be applied to any area, such as outpatient clinics, Intensive Care Units (ICU) or other health units throughout the country, and researchers are allowed to adapt the text that describes each item according to the unit where the instrument will be applied. It is worth mentioning that the referred instrument has already been used in different care contexts, such as the operating room, hospitalization sectors, ICU, among others⁽¹⁰⁾. However, little is known about the safety climate in pre-hospital urgency and emergency services, especially in Emergency Care Units. Few studies related to patient safety in these units were carried out, which shows the novelty of the present study.

Given the need for a validated instrument to assess the safety climate in Emergency Care Units and, consequently, strengthen patient safety in these services, the decision was made to carry out this study, which has as the following research question: Does the Brazilian version of the Safety Attitudes Questionnaire provide evidence of validity, reliability and responsiveness when applied to Emergency Care Units?

In view of the aforementioned, the present study aimed to evaluate the evidence of validity, reliability and responsiveness of the Brazilian version of the Safety Attitudes Questionnaire for Emergency Care Units.

METHOD

This is a methodological study⁽¹¹⁾ developed in an Emergency Care Unit located in the metropolitan region of the State of Espírito Santo. Data were collected during the month of September 2020.

Convenience sampling was used in the selection of the participants of the study. The following professional occupations were included: physicians, nurses, nursing technicians, radiology technicians, receptionists, administrative management, one pharmacist and one laboratory technician.

The following inclusion criteria were adopted: health professionals who provided direct or indirect care to patients, with a minimum workload of 20 hours per week, who have been working at the institution for at least six months. Professionals who were away from their work activities due to vacation, leave or similar situations were excluded from the study.

Before data collection, the institution where the study was conducted was asked to provide the work schedule of the professionals, the names and the respective days and work shifts of these professionals. Subsequently, the unit manager was asked to define the best time for the application of the questionnaire. Data collection was carried out in the professionals' work sector, during day and night shifts. All participants received complete information about the research, such as objective, justification, risks and benefits, legal and ethical issues. After expressing their agreement to participate in the study, the professionals received an envelope containing the questionnaire and the Free and Informed Consent Term (FICT), in two copies. Respondents' privacy was guaranteed. The same instrument was reapplied after an interval of 10 to 14 days to each participant for assessment of the stability of the instrument through test-retest.

All professionals approached were attached to the institution and were, for the most part, permanent employees. Three professionals were excluded from the study because they were on vacation. All professionals who met the inclusion criteria were invited to participate in the study. Of a total of 49 guests, three refused to participate, as follows: two physicians and one radiology technician. Therefore, 46 health professionals participated in the survey. In the first contact, the professionals were informed that the instrument would be reapplied within 10 to 14 days to reach the proposed objective. The same professionals were approached again in the second moment and there was no refusal or loss of participants during the reapplication of the instrument. In order to ensure the quality of the data, a protocol was created to approach the participants, which was applied, in both moments of application of the instrument, by a trained

researcher. The time taken to complete the instrument ranged from 10 to 15 minutes.

The Safety Attitudes Questionnaire (SAQ), a research instrument, originated from the Safety Attitudes Questionnaire – Short Form 2006, an instrument developed by researchers at the University of Texas. The process of cross-cultural adaptation to the Portuguese language was carried out satisfactorily in 2012⁽⁹⁾. The SAQ was selected for translation in Brazil because it is the most translated and adapted instrument for measuring the safety climate in the world⁽¹²⁾.

The instrument contains 41 items that are aimed to measure the perception of the safety climate. Of these, 36 items correspond to six domains: Teamwork Climate (quality of relationship and collaboration among team members); Safety Climate (professionals' perception of organizational commitment to patient safety); Job Satisfaction (positive view of the workplace); Stress recognition (recognition of how much stressor factors can influence the performance of work); Management Perception (approval of management or administration actions in the unit where the health professional performs his/her activities); Working Conditions (quality of the work environment)⁽⁹⁾.

Items 14 ("My suggestions regarding safety would be implemented if I mentioned them to management"), 33 ("I experience good collaboration with nurses in this area"), 34 ("I experience good collaboration with the medical team in this area"), 35 ("I experience good collaboration with pharmacists in this area") and 36 ("Communication failures that result in delays in care are common") of the instrument, related to communication and collaboration, do not belong to any domain, according to the SAQ rules, which are interpreted in isolation⁽¹³⁾.

The reliability of an instrument is its ability to reproduce a result consistently in time and space or from different observers, indicating aspects related to consistency, precision, stability, equivalence and homogeneity. Reliability is thus one of the main criteria for the evaluation of the quality of an instrument⁽¹⁴⁾.

Analysis of internal consistency, stability and reproducibility was used to assess reliability. Internal consistency was examined with the use of Cronbach's alpha. The alpha value must be positive between zero to one, and values below 0.6 are considered inadmissible. The higher the value, the greater the internal consistency presented by the instrument and the more homogeneous and congruent is the scale. An optimal value is considered when the result obtained is >0.7⁽¹⁵⁾. Stability, which is the degree to which similar results are obtained at two different times, that is, the estimation of the consistency of the repetitions of measurements⁽¹⁴⁾, was evaluated with the use of Pearson's Correlation between the

first and the fourteenth day, through test-retest. In addition to the correlation, the Intraclass Correlation Coefficient (ICC) was also used to measure the reliability of the instrument.

The validity of an instrument refers to the degree to which this instrument accurately measures what it intends to measure⁽¹⁶⁾. This property was verified through the correlation process between the domains of the instrument that were applied on day 1.

The responsiveness property, defined as the instrument's ability to detect differences or changes in the evaluated construct, was verified through the analysis of t student test. Many authors do not yet consider responsiveness as a psychometric property. However, the importance of this measure for the assessment of the validity of changes in scores has been highlighted in the current classifications⁽¹⁷⁾.

The research project was approved by the Research Ethics Committee (CEP) of Centro de Ciências da Saúde da Universidade Federal do Espírito Santo, under protocol number 4,236,268, in accordance with the ethical standards established by Resolution 466/2012.

RESULTS

The profile of the participants revealed a predominance of women: 29 (63%) of the health professionals who

participated in the study. Regarding age, 37 (80.4%) were aged between 20 and 45 years. Of the 46 total participants, 14 (30.4%) were nursing technicians, 12 (26.1%) were doctors, 7 (15.2%) were nurses, 5 (10.9%) were receptionists, 4 (8.7%) had administrative positions, 2 (4.3%) were radiology technicians, 1 (2.2%) was a laboratory technician and 1 (2.2%) was a pharmacist. Regarding the length of professional experience in the health sector, there was a predominance of 5 to 10 years (43.5%), followed by 11 to 20 years (19.6%). Thus, all the participants were experienced professionals.

Cronbach's alpha test was performed for the assessment of the internal consistency of the instrument and its score. The coefficient obtained was 0.85. Evaluation of the instrument, after selection of items for elimination one by one, showed that there were no significant fluctuations in Cronbach's alpha value. The alpha values ranged from 0.84 to 0.86 after the elimination of items, reinforcing the instrument's strong internal consistency. The instrument's Intraclass Correlation Coefficient (ICC) was 0.85 (with a confidence interval of 0.78 to 0.90 and p-value <0.01).

The validity of the instrument was assessed with Pearson's Correlation, which is used to measure the degree of correlation between the domains of the SAQ questionnaire, applied on the first day (SAQ A), as shown in Table 1.

Table 1 – Correlations between domains of the "Safety Attitudes Questionnaire". Espírito Santo, Brazil, 2021

Validity of SAQ* domains	Pearson's Correlation (r)	p-value†
Teamwork Climate A		
Safety Climate A	0.275	0.065
Job Satisfaction A	0.430	0.003
Stress Recognition A	0.546	<0.001
Perception of Management A	0.006	0.971
Working Conditions A	0.393	0.007
Safety Climate A		
Teamwork Climate A	0.275	0.065
Job Satisfaction A	0.322	0.029
Stress Recognition A	0.757	<0.001
Perception of Management A	0.571	<0.001

Table 1 – Cont.

Validity of SAQ* domains	Pearson's Correlation (r)	p-value [†]
Working Conditions A	0.669	<0.001
Job Satisfaction A		
Teamwork Climate A	0.430	0.003
Safety Climate A	0.322	0.029
Stress Recognition A	0.621	<0.001
Perception of Management A	0.337	0.022
Working Conditions A	0.811	<0.001
Stress Recognition A		
Teamwork Climate A	0.546	<0.001
Safety Climate A	0.757	<0.001
Job Satisfaction A	0.621	<0.001
Perception of Management A	0.479	0.001
Working Conditions A	0.851	<0.001
Perception of Management A		
Teamwork Climate A	0.006	0.971
Safety Climate A	0.571	<0.001
Job Satisfaction A	0.337	0.022
Stress Recognition A	0.479	0.001
Working Conditions A	0.760	<0.001
Working Conditions A		
Teamwork Climate A	0.393	0.007
Safety Climate A	0.669	<0.001
Job Satisfaction A	0.811	<0.001
Stress Recognition A	0.851	<0.001
Perception of Management A	0.760	<0.001

Source: Research data, 2021.

Notes: *Safety Attitudes Questionnaire. †p-value with a significance level of p<0.05.

As it can be seen, all domains are positively and significantly correlated, highlighting the correlation between the instrument domains. The Safety Attitudes Questionnaire (SAQ) has six domains and no domain correlated with less than three other domains, corroborating a very strong validity characteristic. The Stress Perception domain correlated with all other domains, with strong correlations ($p < 0.01$). The Working Conditions and Job Satisfaction domains were

also significantly correlated with all other domains, which demonstrates the internal validity of the instrument.

The stability of the SAQ in the UPA was evaluated with the use of Pearson's correlation between the application of the instrument on the first day (SAQ A) and the reapplication of the instrument, with the same participants, on the fourteenth day (SAQ B) through the test-retest, as shown in Table 2.

Table 2 – Correlations between domains of the “Safety Attitudes Questionnaire” applied in the test-retest. Espírito Santo, Brazil, 2021

SAQ* domains	Pearson's Correlation (r)	p-value †
Teamwork Climate A		
Teamwork Climate B	0.249	0.095
Safety Climate B	0.249	0.095
Job Satisfaction B	0.304	0.040
Safety Climate A		
Teamwork Climate B	0.236	0.115
Safety Climate B	0.236	0.115
Job Satisfaction B	0.329	0.025
Job Satisfaction A		
Teamwork Climate B	0.655	<0.001
Safety Climate B	0.655	<0.001
Job Satisfaction B	0.914	<0.001
Stress Recognition A		
Stress Recognition B	-0.017	0.908
Perception of Management B	0.511	<0.001
Working Conditions B	0.550	<0.001
Perception of Management A		
Stress Recognition B	-0.060	0.694
Perception of Management B	0.955	<0.001
Working Conditions B	0.348	0.018
Working Conditions A		
Stress Recognition B	-0.034	0.820
Perception of Management B	0.751	<0.001
Working Conditions B	0.486	0.001

Source: Research data, 2021.

Notes: *Safety Attitudes Questionnaire. †p-value with a significance level of $p < 0.05$.

As shown in Table 2, when the correlation analyzes of the domains of SAQ A with the same domains of SAQ B are carried out, it can be seen that Job Satisfaction A with Job Satisfaction B remained with a strong correlation ($r = 0.914$, p -value < 0.001). The domains Perception of Management A with Perception of Management B also showed a strong correlation ($r = 0.955$, p -value < 0.001). Working Conditions A with Working Conditions B were also maintained ($r = 0.486$, p -value < 0.001). On the other hand, the domains Stress Recognition, Teamwork Climate and Safety Climate did not present a significant correlation.

Another important feature highlighted in the analysis of SAQ stability is the correlation between the questions that are not part of the instrument's domains, related to communication and collaboration, as shown in Table 3.

Such analysis was also performed through test-retest. It can be seen that all the aforementioned questions (14,33,34, 35 and 36), when compared to each other in the first moment (Questions A) and in the second moment (Questions B) of application of the SAQ, have a very strong and significant correlation, which also provides evidence of the reproducibility of the instrument.

Responsiveness was also a psychometric property evaluated. Student's t test was used for assessing the responsiveness of the SAQ. Assessment of the significance of the difference between the means of the domains and the questions showed a statistically significant difference (p value < 0.01). Therefore, not only the instrument has internal consistency, but also its reproducibility and its internal validity are reinforced.

Table 3 – Correlations between the questions of the "Safety Attitudes Questionnaire" that are not part of the domains, applied in test-retest. Espírito Santo, Brazil, 2021

SAQ* questions	Pearson's Correlation (r)	p-value [†]
Question 14 – My suggestions regarding safety would be implemented if I mentioned them to management – A		
Question 14 [†] B	0.975	<0.001
Question 33 [†] B	-0.055	0.716
Question 34 [†] B	0.333	0.024
Question 35 [†] B	0.038	0.801
Question 36 [†] B	-0.079	0.601
Question 33 – I experience good collaboration with nurses in this area – A		
Question 14 B	-0.102	0.499
Question 33 B	0.955	<0.001
Question 34 B	0.399	0.006
Question 35 B	0.288	0.052
Question 36 B	-0.154	0.307
Question 34 – I experience good collaboration with the medical team in this area – A		
Question 14 B	0.119	0.430
Question 33 B	0.628	<0.001

Table 3 – Cont.

SAQ* questions	Pearson's Correlation (r)	p-value †
Question 34 B	0.715	<0.001
Question 35 B	0.270	0.070
Question 36 B	-0.207	0.167
Question 35 – I experience good collaboration with pharmacists in this area – A		
Question 14 B	0.092	0.542
Question 33 B	0.361	0.014
Question 34 B	0.313	0.034
Question 35 B	0.990	<0.001
Question 36 B	0.191	0.203
Question 36 – Communication failures that result in delay in care are common – A		
Question 14 B	-0.143	0.343
Question 33 B	-0.231	0.122
Question 34 B	-0.147	0.329
Question 35 B	0.124	0.410
Question 36 B	0.943	<0.001

Source: Research data, 2021.

Notes: *Safety Attitudes Questionnaire. †p-value with a significance level of $p < 0.05$. ‡Question 14 – My suggestions regarding safety would be implemented if I mentioned them to management / Question 33 – I experience good collaboration with nurses in this area/Question 34 – I experience good collaboration with the medical team in this area/Question 35 – I experience good collaboration with pharmacists in this area/Question 36 – Communication failures that result in delay in care are common.

DISCUSSION

The present study evaluated the psychometric properties of the Brazilian version of the Safety Attitudes Questionnaire (SAQ) applied to the UPA (Emergency Care Unit). It is the first study to analyze and demonstrate the reproducibility of an instrument to assess the safety climate in emergency services and pre-hospital emergencies in Brazil.

The assessment of the safety climate in health institutions makes it possible to provide guidance regarding the actions that can be carried out in order to reduce the factors that contribute to the occurrence of incidents, so that better health care and a safer environment can be promoted⁽¹³⁾. Some authors also emphasize that the impact of a negative

safety climate assessment can result in financial, social and psychological losses, both for health professionals and for patients⁽⁶⁾.

Few studies have been carried out on patient safety in the Emergency Care Units. According to the literature, so far no studies have been conducted in Brazil with the objective of evaluating the safety culture through the measurement of the safety climate in high-complexity care services. In order to carry out research on this topic, an adequate and valid instrument is required, and this is precisely what is proposed in the present study.

Analysis of the profile of the participants in this study revealed a predominance of women. In studies carried out in Brazil, it was also found that most participants were

women and nursing professionals⁽⁴⁾. Regarding the length of professional experience of the participants, most of them have been working in their field for a period ranging from 5 to 10 years (43.5%), followed by 11 to 20 years (19.6%), and therefore these health professionals had plenty of experience in their fields. It is believed that this can be explained by the fact that the professionals are civil servants attached to the institution and with job security, which can influence the admission and permanence of these individuals.

The results related to the analysis of reliability showed that the Brazilian version of the SAQ had a Cronbach's alpha of 0.85. According to the literature, this value shows a strong internal consistency of the instrument⁽¹⁴⁾. This value is similar to Cronbach's alpha of the cross-cultural adaptation process and instrument validation in 2012, which was 0.89⁽⁹⁾. Internal consistency was reinforced through selection of items one by one for elimination from the instrument, where alpha ranged from 0.84 to 0.86, with no significant fluctuations in its value.

As for the correlation of the domains, the SAQ showed a moderate to strong correlation. Of the six domains of the instrument, all were minimally correlated with three other domains. Two domains (Stress Recognition and Working Conditions) correlated with all other domains, showing strong correlations, a characteristic that demonstrates the internal validity of the instrument. Similar results were also reported by the authors who translated the questionnaire for Brazil⁽⁹⁾.

Large samples or sample calculation are not necessary for the evaluation of psychometric properties. The important thing is to determine the stability of the instrument. Thus, the authors generally suggest a sample ranging from 30 to 50 participants⁽¹⁶⁾. SAQ stability was evaluated using Pearson's Correlation, with the application of the instrument on the first day of application and its reapplication on the fourteenth day, through the test-retest.

The test-retest stage corresponds to the application of the same instrument at two different times, and an interval of 10 to 14 days is considered adequate⁽¹⁸⁾. It was found that three domains maintained a strong correlation (Job Satisfaction, Perception of Management and Working Conditions), while three other domains did not show a significant correlation. However, analysis of the correlation between the questions that are not part of the instrument's domains, when compared to each other in SAQ A and SAQ B, showed that all of them had a very strong and significant correlation, demonstrating the reproducibility of the instrument.

Such results of correlation between domains are justified because there are domains that are more volatile depending on the scenario and domains that are less volatile. For example, the variables with significant correlation, which were Job Satisfaction, Perception of Management and Working

Conditions, did not change in 14 days, that is, they are more stable domains. On the other hand, there are domains that vary according to the conditions of a given moment, that is, they are mutable, such as Stress Recognition, Teamwork Climate and Safety Climate.

Despite small weaknesses in the correlation of the domains, the results provide evidence of excellent reliability for the Safety Attitudes Questionnaire, demonstrating that the instrument is highly reproducible. In general, it can be affirmed that the translated and applied version of the SAQ has good homogeneity in the measurement scale, with values higher than those suggested in the literature⁽¹⁹⁾ and similar to other validation studies⁽²⁰⁾, with adequate levels of internal consistency and stability. When adapted in other countries, the instrument also has satisfactory psychometric properties^(16,20).

The present study was carried out in a single Emergency Care Unit in the metropolitan region of the State of Espírito Santo, which may be a limitation for the generalization of its results. In addition, convenience sampling was used, which makes it difficult for the sample to be composed of a greater number of participating professionals. Despite such limitations, the results obtained in this research contribute to the dissemination of knowledge on the subject, and may serve as a basis for new studies on safety culture to be replicated in UPAs.

■ FINAL CONSIDERATIONS

The Safety Attitudes Questionnaire (SAQ), applied in an Emergency Care Unit, obtained satisfactory values in the evaluation of psychometric properties, showing evidence of validity, reliability and responsiveness. Therefore, the SAQ instrument, whose applicability was tested in this study, is validated to be reproduced in other scenarios of Emergency Care Units in Brazil, aiming to assess the safety climate, identifying gaps and enabling the creation of safer health processes in these complex public health services.

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The authors declare that there is no conflict of interest.

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Received: 08.30.2021

Approved: 06.20.2022

Associate editor:

Adriana Aparecida Paz

Editor-in-chief:

Maria da Graça Oliveira Crossetti