●●● **ARTICLE 1**

SOCIOEMOTIONAL SKILLS OF NURSES WORKING IN A UNIVERSITY HOSPITAL: CROSS-SECTIONAL STUDY

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Abstract: The objective of this study was to assess the social-emotional competencies of nurses working in a university hospital in northeastern Brazil. A cross-sectional study was conducted using the Social-Emotional Competency Scale, which has 25 items/assertive questions. A total of 112 nurses who work and/or have worked in management and/or in the units/services of the respective hospital participated in the study. The results showed that the nurses in the study obtained the highest average of 5.50 (standard deviation = 1.47) in the Social Awareness dimension, with the highest correlation occurring between the dimensions of Emotional Awareness and Emotional Self-Control (rho = 0.646). The confirmatory factor analysis showed satisfactory indices in the dimensions of Emotional Awareness, Social Awareness, Regulation, and Emotional Creativity. However, the Emotional Self-Control dimension showed low indices, contrary to the original scale model, which may be related to the number of respondents in the sample. When considering workers and users in their human and emotional dimensions, it is recognized that such competencies are elements that integrate important knowledge and, therefore, should be valued by the health and nursing fields, as well as in continuing education and the organizational environment.

Keywords: Social Skills; Nursing; University Hospitals; Quantitative Method.

INTRODUCTION

Social-emotional skills (SES) are interpreted as the ways in which people have to control, perceive, and demonstrate individual and collective emotions so that they can adapt to the complexities that exist

during the life cycle. These competencies are also understood as perceived behaviors that favor training, the learning process, decision-making, and relationship management[1][2] (Macêdo & Silva, 2020; Oliveira & Muszkat, 2021).

CSE emerged in the 1990s, based on studies that described emotional intelligence as a result of the combination of human intelligence and emotions[3] (Macêdo, 2019). In addition, these competencies are characterized by the intellectual ability to respond to the environment through cognitive intelligence, associated with emotional and social intelligence, which together represent a means of recognizing, understanding, and interpreting relationships. Thus, its concept is broad.

SEL is described by educators and psychologists from *the Collaborative for Academic, Social, and Emotional Learning* (CASEL) as a process of social and emotional learning based on personal life experiences, which enables the development of knowledge, skills, and attitudes (KSA) by individuals, forming people with characteristics such as self-awareness, attention, responsibility, engagement, and integration[5-6] . These attributes have also been investigated by *the Psychopedagogical Guidance Research Group* (GROP) at the University of Barcelona as appropriate strategies for the emotional development of students[7] .

In Brazil, ten of these competencies are considered components that promote continuous learning through the creation of an interactive environment that fosters not only the above-mentioned attributes, but also personal and collective self-confidence. They are implemented in the National Common Core Curriculum (BNCC) across all subjects for the construction of school curricula[8] .

In the field of professional and personal training, CSE can be translated as positive psychology, considered essential for the appreciation, recognition, and improvement of other competencies by individuals, which will be reflected in social well-being[4,9] .

Thus, CSE represent aspects that can be found in the macro and microenvironments of work settings. These contexts constantly demand the work of emotionally prepared professionals, capable of dealing with the complexities and uncertainties that exist in these spaces. For example, in the health field, the emergence of certain situations can evoke a range of emotions and feelings that are possibly reflected in the individual and/or collective behavior of the organization.

In a preliminary survey, it was observed that there are few studies focused on assessing the CSE of these professionals in hospital and teaching environments. Thus, knowledge of these competencies contributes to better action by managers in services, provided that it is adopted as an educational and political tool for training people. In order to minimize the impacts on mental health, given the complexities that exist in various health services[1][11].

Furthermore, this study aims to assess the social-emotional competencies of nurses working in a university hospital in Brazil.

METHOD

This research is based on a cross-sectional study with a quantitative and descriptive approach and exploratory nature, based on the guidelines of *Strengthening the Repor-*

ting of Observational Studies in Epidemiology (STROBE)[12].

The investigation took place at a university hospital (UH) in northeastern Brazil. The UH was established more than 70 years ago and is one of the largest public institutions in the region linked to the Ministry of Education, providing comprehensive care to the community through the Unified Health System (SUS).

The study sample was intentional, consisting of 112 nurses. The inclusion criteria were to be a nurse who works and/or has worked in management and/or in the units/services of this hospital for at least one year. Excluded were professionals who were absent for reasons such as vacation and/or leav d during the data collection period and nursing residency students.

Data collection took place virtually from September to December 2022 and from April to August 2023 using a *survey* questionnaire created in *Google Forms.* To answer it, a link to the questionnaire was sent to all nurses at the hospital through the internal digital communication *tool*—Intranet—and they were also contacted via the *WhatsApp* messaging app, inviting them to participate in the survey.

The aforementioned questionnaire was divided as follows: the first tab contained information about the research, plus the Free and Informed Consent Form (FICF); in the next tab, participants filled in sociodemographic data related to gender, age, education, employment status, and length of service. The third and final tab used the Social-Emotional Competencies scale, in the form of a *Likert-type* questionnaire containing 25 assertive questions/items grouped into five dimensions: Emotional Awareness (EA), So-

cial Awareness (SA), Emotional Regulation (ER), Emotional Self-Control (ESC), and Emotional Creativity (EC), with frequency ratings ranging from 1 to 6, where 1 = never, 2 = almost never, 3 = sometimes, 4 = often, 5 = almost always, and 6 = always. Examples of items/questions include: "I perceive my emotions easily" and "I cooperate when working in a team."

This instrument is a self-report type, which "is characterized by the person of interest being the researcher's own source of information, so the way in which the response options are presented is of paramount importance"[13] (Lima-Costa; Bonfá-Araujo, 2022, p. 329).

The Social-Emotional Competence Scale was developed and validated for the Brazilian context by Macedo and Silva (2020)[1]. It contains five dimensions: Emotional Awareness (EA), related to self--knowledge and self-management of emotions; Social Awareness (SA), practiced for maintaining relationships, which requires Emotional Regulation (ER) for exercising balance and decision-making, which, together with Emotional Self-Control (ESC), reflect self-control, and Emotional Creativity (EC), which fosters flexible and responsible behavior in individuals.

For data analysis, statistical techniques of mean (M), standard deviation (SD), correlation, reliability index (Cronbach's Alpha), and Confirmatory Factor Analysis (CFA) were used through the *Statistical Package for the Social Sciences* (*SPSS*) *software*, version 25.0. Initially, the basic assumptions of the participants' responses were analyzed. The Shapiro-Wilk test found a sample that differed from normality, therefore the data are abnormal and require analysis with non--parametric tests. As a complement to the

investigations, the internal consistency index or reliability of the data was calculated.

The study complied with the standards contained in Resolutions 466/12 and the requirements set forth in virtual research circular letter No. 2/2021. The research is linked to the parent project "Hospital management models in nursing: nurses' memories" through Substantiated Opinion No. 5,462,599.

RESULTS

A total of 112 nurses participated in the research, and as can be seen in Table 1 below, with regard to the characterization of the participating sample, 88.4% (N=99) correspond mainly to female nurses. The age range showed that the average age of the 48 participants was between 41 and 50 years (42.9%), with 11 to 16 years of experience in the position/function (N=67, 59.8%).

Variable	Description	F (%)
Age	31 to 40	42 (37.5)
	41 to 50	48 (42.9)
	51 to 60	20 (17.9)
	61 to 70	2 (1.8)
Employment	Statutory	22 (19.6)
	EBSERH	90 (80.4)
Qualification/ Current education	Undergraduate	10 (8.9)
	Specialization	75 (67.0)
	Master's	20 (17.9)
	Doctorate	7 (6.3)
Time of Assignment (Years)	5 to 10	45 (40.2)
	11 to 16	67 (59.8)

Note: F (frequency), % (percentage)

Table 1 – Sociodemographic data of participants

Source: survey data.

Another aspect identified concerns the type of employment relationship within the organization, with most professionals being hired by the Brazilian Hospital Services Company (EBSERH) (N=90). Regarding the level of training and improvement through *lato sensu* and *stricto sensu* postgraduate programs of these professionals (N=102), 67% have a specialist degree, 17.9% have a master's degree, and 6.3% have a doctorate.

To assess the CSE of the nurses surveyed, the 25 questions/items of the Scale applied were transformed into factors, respectively, the five dimensions: **EC** (Emotional Consciousness), **EC** (Emotional Self-Control), **SC** (Social Consciousness), **ER** (Emotional Regulation), and **EC** (Emotional Creativity).

The results indicated that the nurses in the study obtained the highest average in the **Social Awareness** (**SA**) dimension (M=5.50; sd=1.47), that is, they demonstrated that they **"almost** always" have the "ability to cooperate when working in a team, taking responsibility for their actions, acting with empathy and a sense of collaboration by recognizing and understanding the difficulties of others"[1] more than the other SECs.

Table 2 shows that, based on the averages, there are indications that nurses "frequently" possess the other capacities indicated in the Social-Emotional Competence Scale, such as personal, emotional, and social skills that influence an individual's ability to deal with the demands, challenges, and pressures of daily life.

	Factors				
	CE	**RE**	**CS**	**AE**	**CrE**
Average (M)	4.73	4.62	5.50	4.85	4.66
Standard Deviation (sd)	0.59	0.61	1.47	0.75	0.69

Table 2 - Averages of the factors on the CSE Scale **Source**: Research data.

The study also pointed out that, using Spearman's correlation coefficient (rho), the dimensions Emotional Awareness (EA) and Emotional Self-Control (ESC) showed the highest correlation among the factors of the Socioemotional Competence Scale (Table 3), suggesting that the greater the self-knowledge and self-management of emotions, the greater the self-control of emotions.

Dimension	EC	RE	CS	AE	CRE
CE	1				
RE	0.563**	1			
CS	0.588**	0.392**	1		
AE	0.646**	0.553**	0.585**	1	
CRE	0.610**	0.459**	0.605**	0.608**	1

**. The correlation is significant at the 0.01 level (two-tailed).

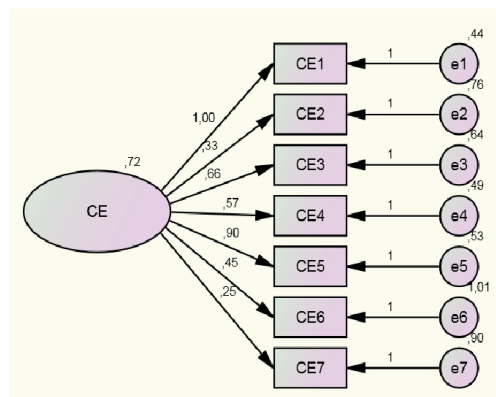**Table 3** - Correlations between the dimensions of the SSC scale

Through Confirmatory Factor Analysis (CFA), the results showed that satisfactory adjustment indices were found in the research model (Table 4), corroborating the good structure of the scale used for the nursing participants.

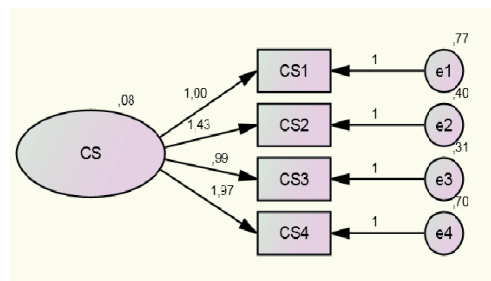| Dimension model	Fit indices			
	χ^2/gl	**RMSEA**	**CFI**	**TLI**
CE	1.150	0.037	0.983	0.975
CS	1.681	0.078	0.9390	0.817
RE	1.805	0.085	0.912	0.853
CrE	0.678	0.000	1.000	1.036

Table 4 - Adjustment indices of the CSE Scale dimension models

Source: Research data

However, the **AE** dimension model (Figure 1) presented low adjustment indices, indicating that the model in this dimension did not re ly represent the original model of the theory. One of the reasons for this mismatch may have been caused by the number of respondents in the sample.
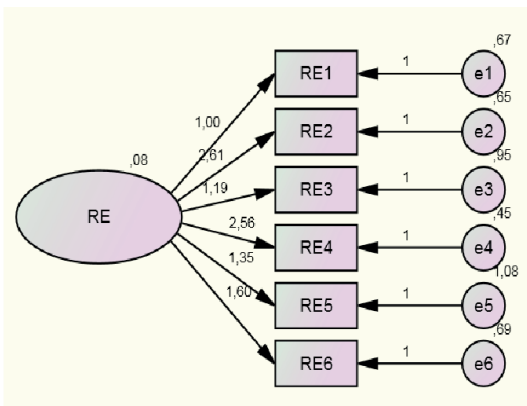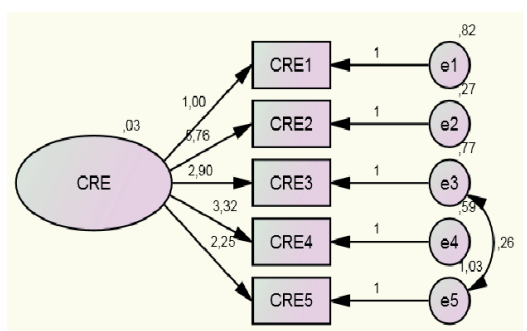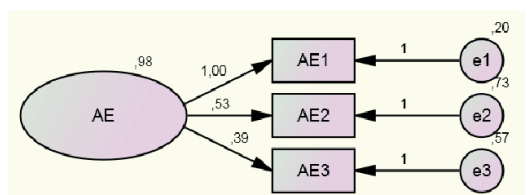

Emotional awareness model

Social awareness model

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Emotional regulation model

Emotional creativity model

Emotional self-control model

Figure 1 - CFA of the CSE scale dimensions.

Source: Research data.

As a complement to the investigations, the internal consistency index or data reliability was calculated. The sample obtained a Cronbach's alpha (α) = 0.889, indicating a satisfactory degree of reliability.

DISCUSSION

The sample participating in this research consisted mainly of nurses aged between 41 and 50 years old, with 11 to 16 years of experience in their position/role. These data are corroborated by other evidence about the historical evolution of the profession over the years and "professional maturity" as a period in which professionals are technically prepared and qualified to perform their duties[14-16] (Machado et al. 2017; Costa; Freitas; Hagopian, 2017; Menegaz et al, 2023).

The type of employment relationship at the HU showed that most respondents are covered by the Consolidated Labor Laws (CLT), i.e., they are professionals hired by the Brazilian Hospital Services Company (EBSERH), an agency created to promote the efficiency of health practices in HUs[17]. EBSERH is an outsourced agency with its own regulations that differentiate the evaluation and performance process of these professionals from those characterized as civil servants (statutory)[18-19].

Regarding the level of training and improvement of these nurses in one of the postgraduate modalities (*lato sensu* and *stricto sensu)*, specialist titles have greater significance than master's and doctoral degrees. Since the HU surveyed is an institution focused on the three pillars of "Teaching, Research, and Extension," there is a need for greater investment and commitment from the organization to maintain the teaching and research activities of *stricto sensu* postgraduate programs in nursing, which contribute to the progress of the profession and the health services offered to the population[20-21].

Furthermore, considering the complexity of the care provided by nurses in this environment and the behavior manifested during the work process, other skills are being required, such as training in Advanced Nursing Practices and, above all, leadership development[22-23] .

In the assessment of the CSE of the nurses surveyed, the **Social Awareness** dimension **is** configured as a practice applied to maintain relationships[1]. Thus, when compared to other competencies, they revealed the proportion in which professionals are empathetic, work as a team, and make decisions jointly. Joint activities emerge as appropriate actions for creating and maintaining healthy interactions through self-management and personal self-control, which are essential elements for the development of emotional intelligence[10] .

The presence of other ESQs indicates that the personal, emotional, and social relationships formed by nurses "often" can influence other individual skills, such as those related to how these professionals manage to deal with the pressures they face, given the constant demands and challenges experienced in their work environment[24-26] .

Similarly, the presence of a greater correlation between the factors of the EI dimensions (interpersonal relationships, decision-making, empathy) and AE (self-control) demonstrated that the greater the ability of nurses to recognize and understand their own feelings and emotions and those of others, the greater their ability to keep their emotions under control in the short term when faced with stressful situations[1] .Added to this is the degree of complexity present in the hospital environment, which can represent one of the risks to nurses' mental health. This was evidenced in a study conducted at a highly complex institution in Cúcuta, Colombia, which demonstrated the relationship between emotional exhaustion and the risk of anxiety and depression among professionals working in these environments[2] [7] .

In this study, the AE dimension showed low scores compared to the original structural model of the scale. However, studies indicate that the CSE performed by nurse leaders in a teaching hospital during and after the COVID-19 pandemic identified the presence of self-control as a component of AE, described in the behaviors of recognition and respect for resistance in the face of the pressures suffered by these professionals during this process[27] .Consequently, AE emerges in another study as part of the most significant CSEs for awakening the formation of emotionally and socially capable people[28]. That is, people who are responsible and committed to their transformation.

CONCLUSION

The research findings made it possible to identify that the CSE presented by the nurses corresponded to the Social Awareness dimension, directed towards working together. However, the Emotional Self-Control dimension, which deals with self-management and emotional self-control, represented a necessary indicator to be developed by these professionals in order to obtain emotional intelligence during the performance of their actions.

Furthermore, given their human and emotional capacities, especially in a complex environment such as a hospital, knowing the ESQ of these professionals requires due recognition of the nursing and health field, in order to provide means that contribute

to the improvement and refinement of the profession mediated by continuing education, as well as in the context of hospital organization.

In addition, the CSE scale proved to be adequate for the nursing audience, presenting, in general, good statistical indices. It is suggested that further research be conducted with a larger number of participants to better verify the adequacy of the original model.

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