

Influence of academic satisfaction on the communication skills of nurses

Influência da satisfação acadêmica na comunicação de enfermeiros

Influencia de la satisfacción académica en la comunicación de enfermeros

ABSTRACT

Objectives: To correlate academic satisfaction with nurses' interpersonal communication skills; to associate sociodemographic and professional characteristics with nurses' interpersonal communication skills. **Method:** This is a cross-sectional analytical study. We used the Scale of Satisfaction with the Academic Experience of Students of Higher Education, the Competence Scale in Interpersonal Communication and the Scale about Professionalism and Competence in Interpersonal Communication Nurse and Patient. **Results:** 397 nurses participated in this study. Less experienced, younger, catholic nurses showed more openness to relationships; those who studied in public institutions showed more ability to express their feelings; those who did not have prior training in the nursing area were better able to demonstrate understanding and notice what people feel; those who declared themselves Catholic and non-religious showed more sincerity in the nurse-patient relationship. **Conclusions:** The more satisfied with their academic experience, the better the nurses' interpersonal communication.

Descriptors: Interpersonal Relations; Professionalism; Nursing Education.

RESUMO

Objetivos: Correlacionar a satisfação acadêmica com a comunicação interpessoal do enfermeiro; associar as características sociodemográficas e profissionais com a comunicação interpessoal do enfermeiro. **Método:** Estudo analítico transversal. Utilizou-se a Escala de Satisfação com a Experiência Acadêmica de Estudantes do Ensino Superior; a Escala de Competência em Comunicação Interpessoal e a Escala sobre Profissionalismo e Competência em Comunicação Interpessoal Enfermeiro e Paciente. **Resultados:** Participaram 397 enfermeiros. Enfermeiros com menor tempo de formação, mais jovens e católicos, demonstraram mais disponibilidade nas relações; os que estudaram em instituições públicas mostraram mais habilidade para expressar sentimentos; aqueles que não tinham formação prévia na área de enfermagem foram mais capazes de demonstrar compreensão e perceber o que as pessoas sentem; tanto aqueles que se declararam católicos quanto sem religião referiram ter mais sinceridade nas relações enfermeiro-paciente. **Conclusões:** Quanto mais satisfeitos com a experiência acadêmica, melhor é a comunicação interpessoal do enfermeiro.

Descritores: Relações Interpessoais; Profissionalismo; Educação em Enfermagem.

RESUMEN

Objetivos: Correlacionar la satisfacción académica con la comunicación interpersonal del enfermero; Asociar las características sociodemográficas y profesionales con la comunicación interpersonal del enfermero. **Método:** Estudio analítico transversal. Se utilizó la Escala de Satisfacción con la Experiencia Académica de Estudiantes de Enseñanza Superior, la Escala de Competencia en Comunicación Interpersonal y la Escala sobre Profesionalismo y Competencia en Comunicación Interpersonal Enfermero y Paciente. **Resultados:** Participaron 397 enfermeros. Los enfermeros con menor tiempo de formación, más jóvenes y católicos demuestran más disponibilidad en las relaciones; Los que estudiaron en instituciones públicas mostraron más habilidad para expresar sentimientos; Los que no tenían formación previa en el área de enfermería fueron más capaces de demostrar comprensión y percibir lo que las personas sienten; Tanto aquellos que se declararon católicos así como sin religión referirán tener más sinceridad en las relaciones enfermero-paciente. **Conclusiones:** Cuanto más satisfechos con la experiencia académica, mejor es la comunicación interpersonal del enfermero.

Descriptores: Relaciones Interpersonales; Profesionalismo; Educación en Enfermería.

Francine da Costa Alves¹

 [0000-0002-3768-9476](https://orcid.org/0000-0002-3768-9476)

Ana Claudia Giesbrecht Puggina²

 [0000-0001-8095-6560](https://orcid.org/0000-0001-8095-6560)

¹ Universidade de Taubaté.

² Faculdade de Medicina de Jundiaí.

Autor correspondente:

Francine da Costa Alves

E-mail: enffran_tte@hotmail.com

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INTRODUCTION

Higher education institutions play an important role in the training of students and, throughout the training process, they must provide resources and constructive experiences for professional development⁽¹⁾. During the training phase, nurses acquire theoretical and practical knowledge⁽²⁾ in order to prepare for the exercise of their profession and acquire general skills in health care, anamnesis and physical examination, decision making, leadership, administration, management, permanent education and communication⁽³⁾.

It is also expected that, even during the training, these students will experience situations of the practice of being nurses with exercise of autonomy, responsibility and attention in professional-patient relationships, so that in the future they will feel confident, safe and qualified to provide nursing care, considering patients in their entirety and complexity⁽⁴⁾. Evidence presented, in a qualitative study, indicates the need for an organization for the academic education of nurses, which develops dynamic, interactive, reflective, critical people, with humanized knowledge and skills and that add social values to their performance, being able to place themselves in other positions in the labor market⁽⁵⁾.

In the exercise of the profession, nurses develops several actions aimed at caring, managing, educating and researching⁽⁶⁾, in all these actions, there are numerous technical knowledge that must be learned, therefore, developing communication skills can greatly facilitate these actions, give fluidity to interactions with patients, families or team and allow nurses to understand their context in a more holistic way.

It appears that the students' expectations regarding the learning of issues related to communication, feelings, behaviors, fears and humanization are generally not met. These issues arise in training in a fragmented way and with a gap between what is taught and what is experienced⁽⁷⁾. Nurses need better preparation, knowledge and training to use

communication efficiently and effectively, which could be acquired not only in specific disciplines of communication and professional-patient relationship, but also in the proper reflection on these skills in the practical activities of the course⁽⁸⁾.

The important relationship between the domain of knowledge and nurses' communication skills stands out, since all communication must have two parts: the content (fact, information or technical-practical knowledge that depends on training) and the feeling or intention (what the professional wants to communicate and how he feels about that fact, information or knowledge)⁽⁹⁾. Without the comprehensive knowledge of a nurse, interactions with patients can be superficial and without therapeutic goals.

In communication, which is the process of transmitting and receiving messages using symbols (stimuli that have only one possible decoding) or signs (stimuli that have more than one meaning), the message is an element as important as the sender, the receiver, the channels by which the communication occurs (way) or the effects that are produced in individuals (response)⁽⁹⁾.

Learning flaws during training can certainly impact the communicative performance of the future professional. In order to properly carry out a patient's anamnesis and physical examination, for example, nurses need both technical knowledge and communication skills.

Considering the message, technical-practical or meta-therapeutic knowledge, as essential parts of the communicative process of nurses, communication and knowledge become inseparable and interdependent elements. Therefore, this study proposes to know the influence of academic satisfaction on the communication skills of nurses.

It is understood that satisfaction is something variable, because people have different needs from each other at certain times and circumstances⁽¹⁰⁾. It refers to a dynamic and reciprocal process in which, on the one hand, students modify the

environment, based on their perceptions and, on the other, the environment generates an impact on students as a result of the experiences made possible⁽¹⁰⁾. However, satisfaction with the academic experience can reflect more directly if a result expected by the individual has been achieved and is being essential in his performance⁽²⁾.

Knowing the students' satisfaction or dissatisfaction with regard to the training can contribute to the understanding of the impact of higher education on the professional's performance, since the mismatch between students' expectations, what the institution offers and what professional reality needs can generate low performance and insecurity⁽¹¹⁾. There is no doubt that graduation is a valuable period for the professional training process to take place, as it is there that fundamental knowledge and skills of the profession are acquired; however, it is important to highlight that professional identity certainly develops, throughout life, through study, experiences and reflections on how to act, think and relate⁽¹²⁾. Thus, this article aimed to correlate academic satisfaction with interpersonal communication of nurses and associate sociodemographic and professional characteristics with interpersonal communication of nurses.

METHOD

Cross-sectional analytical study. The dependent variables were competence in interpersonal communication and self-assessment of professionalism. The independent ones were academic satisfaction, sociodemographic and professional characteristics.

Assistance nurses who work or worked in the care area with adults and who had a profile on the social network Facebook® were included in the research. Nurses with exclusive work in areas of pediatrics and neonatology, or who never worked in the care area were excluded from the study, because one of the scales contemplated physical examination in adults.

Data collection took place from June to November 2016, through direct and indirect recruitment. In direct recruitment, nurses were approached in the workplace and, after explaining the research, invited to participate. For those who accepted, their profile on the Facebook® social network was requested and, subsequently, an individual invitation was sent via message on Facebook® with a link to access the questionnaire.

In indirect recruitment, nurses who are members of public nursing-related groups, from the social network Facebook®, were invited to participate in the research through a link published in the groups' timeline. Nurses with personal profiles linked to the researchers were invited by private message to collaborate with the research.

A mean value for the population of interest for this study was estimated through the Epidemiology and Statistics Laboratory of the Institute Dante Pazzanese of Cardiology. When calculating the sample in this way, it is assumed that the variable containing the response of interest follows a normal distribution with a supposedly known standard deviation.

Considering the standard deviation (± 3.99) and mean (47.8) of a previous study of the Self-Assessment Scale on Professionalism and Competence in Interpersonal Communication between Nurses and Patients⁽¹³⁾ and the maximum error of the estimate corresponding to 10% of the standard deviation ($EME = 0.39$) and setting a significance level of 5%, the estimated mean value for the application of this instrument was 384.

The sample calculation refers to the minimum size required for the application of the instrument. Data collection period was from June to November 2016, totaling five months. It was not possible to measure the number of people who had access to the research link; daily public groups on the Facebook® social network change the number of members.

All participants answered the questionnaires in the same way through the

questionnaire access link built in Google forms®. When clicking on the link, the first screen was the Informed Consent Form; the study participant's consent was obtained, through electronic acceptance, that is, the participant had to click on "I accept to participate in the research" to proceed. Those who clicked "I do not accept to participate in the research" were directed to a thank you page. At this stage, twelve people clicked not to participate in the research.

To confirm that the participant was a nurse and to prevent duplication, identification with the full name and registration number of the Regional Nursing Council (Coren) was requested, soon afterwards, this information was checked on the websites of the regional councils. Thus, participants who were not nurses and who did not meet the inclusion criteria, as well as professionals who responded more than once, were excluded from the sample.

Four questionnaires were used. Participants' characterization questionnaire contained sociodemographic variables (age, place of birth, sex, marital status, self-reported color, religion, personal income) and professionals (complete schooling, training time, higher education institution, participation in academic activities, previous training in nursing, work shift and acting unit).

The Academic Experience Satisfaction Scale (AESS) for Higher Education Students contained 35 items divided into three dimensions (satisfaction with the course, development opportunity and satisfaction with the institution), measured by five-point Likert responses, which ranged from "not at all satisfied" to "totally satisfied". The total score of the scale ranged from 55 to 175, the higher the score, the greater the satisfaction with the academic experience⁽¹¹⁾.

The Interpersonal Communication Competence Scale (ICCS) was also used, with 17 items, composed of five domains (self-disclosure, assertiveness, handling of interactions, control of the environment, availability) with five-point Likert responses, ranging from "never" To "almost always".

Items 8 and 17 had a reverse code and should be recoded before the sum of the total score. The variation of the total score of the scale was from 17 to 85, the higher the ICCS score, the greater the individual's competence in interpersonal communication⁽¹⁴⁾. The Self-Assessment Scale on Professionalism and Competence in Interpersonal Communication (SSPCIC) between Nurses and Patients contained 11 items, composed of four factors, with five-point Likert responses, ranging from "never" to "always". The total score ranged from 11 to 44 and the higher the score, the greater the self-assessment of professionalism and competence in communication with patients during the physical examination⁽¹³⁾.

Data were analyzed using the statistical software R Core Team 2016® (GPL, 2016, Vienna: Austria). Descriptive analysis (absolute, relative frequency, position measures and standard deviation), inferential analysis, multiple normal regression analysis (ICCS) and negative binomial regression analysis (SSPCIC) were performed.

To compare the quantitative variables with the instrument scores, Spearman's Correlation Test was used; in the association of categorical variables with scores, the Kruskal-Wallis test and the Mann-Whitney test were used. The level of significance adopted in the tests was 0.05.

When the association test was significant, p-values were analyzed in pairwise comparisons using the Bonferroni criterion and groups that differed from each other were those with p-values lower than the general one.

The development of the study complied with national and international standards of ethics in research involving human beings and was approved by the Ethics and Research Committee under the number of Opinion 1.562.760 and Certificate of Presentation for Ethical Appreciation (CAEE) number 53654216.0.0000.5506.

RESULTS AND DISCUSSIONS

This study contributed to emphasize the importance that knowing the relationship that

exists between academic satisfaction, communication and professionalism can elucidate important issues that need to be reviewed in the training of nurses.

The study sample consisted of 397 nurses with an average age of 34.72 years (± 8.10), with an average training time of 6.84 years (± 5.15). Most were female, Catholic and white, from the Southeast. The highest

frequencies were of married participants with up to three minimum wages (Table 1).

The majority were professionals with specialization, graduated from private universities, without previous training in the field of nursing and participated in scientific events during graduation. There were more frequent nurses working in inpatient units and working full-time (8 hours a day) (Table 1).

Table 1 - Description of characteristics of the research participants, Guarulhos, SP, 2017

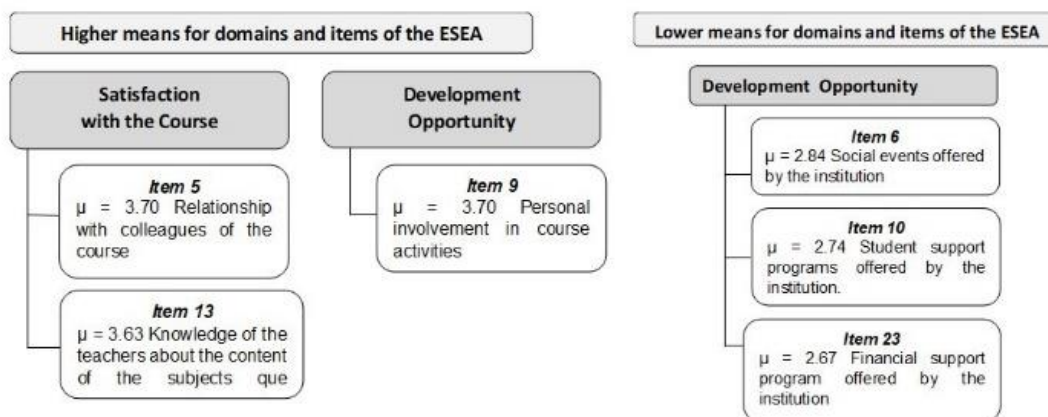
Characteristics	N°	%	Characteristics	N°	%
Sex			Schooling		
Female	363	91.4	Specialization	212	53.4
Male	34	8.5	College degree	168	42.3
Marital status			Master's degree	17	4.2
Married	195	49.1	Training Institution		
Not married	163	41.0	Private	331	83.3
Divorced	28	7.0	Public	66	16.6
Separate	8	2.0	Participation on		
Widower	3	0.7	Scientific events	136	34.2
Self-reported color *			Did not participate	103	25.9
White	281	70.7	Scientific research	98	24.6
Brown	84	21.2	Outreach projects	60	15.1
Black	25	6.3	Previous Training in the Area		
Yellow	6	1.5	No	218	54.9
Indigenous	1	0.2	Nursing Technician	119	29.9
Religion			Nursing assistant	60	15.1
Catholic	216	54.4	Work shift		
Evangelical	97	24.4	Integral	148	37.2
spiritist	44	11.0	12x36 Night	93	23.4
Jehovah's Witness	5	1.2	Morning	66	16.6
Without religion	35	8.8	12x36 Daytime	48	12.0
Income (minimum wage)			Evening	42	10.5
3	116	29.2	Unit of work		
4	96	24.1	Inpatient Unit	165	41.5
7 or more	55	13.8	Emergency Room	78	19.6
5	54	13.6	ICU or Semi-intensive care unit	56	14.1
2	34	8.5	Outpatient clinic	45	11.3
6	25	6.3	FHS/BHU	26	6.5
1	17	4.2	Surgical Center and Obstetric Center	18	4.5
Origin			Maternity	9	2.2
Southeast	337	84.8			
North East	31	7.8			
South	10	2.5			
North	9	2.2			
Midwest	9	2.2			
Other	1	0.2			
Total	397	100	Total	397	100

Source: Own elaboration (2020).

The mean total score of nurses' responses, in relation to AESS, was 113.57 (± 20.62). The highest means were found in the items 9, 5 and 13,

and the lowest means were in items 6, 10, 23 (Figure 1).

Figure 1 - Description of the highest and lowest means of the items answered in the AESS. Guarulhos, SP, Brazil, 2016. (N = 397)



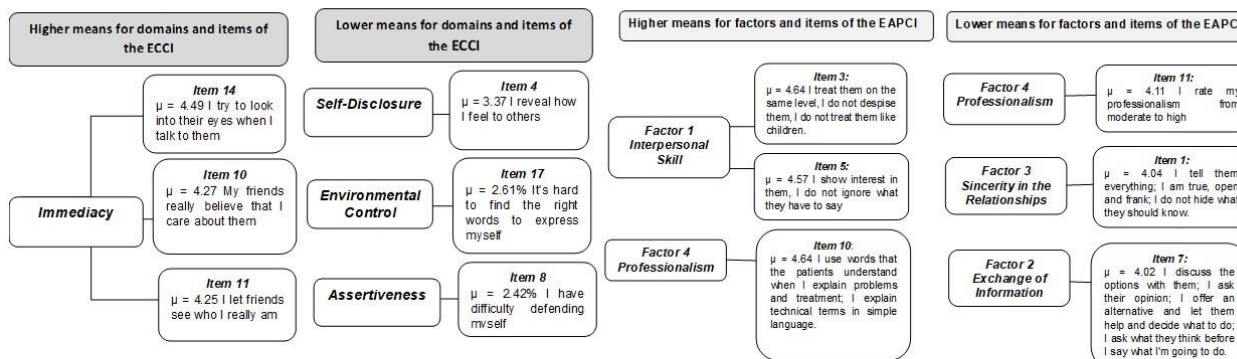
Source: Own elaboration (2020).

Legend: AESS: Academic Experience Satisfaction Scale of Higher Education Students. μ : mean.

The mean total score of the responses, in relation to the ICCS, was 64.62 (± 5.92) and, in relation to the SSPIC, it was 47.91 (± 4.91). The highest means in the ICCS were in items 10, 11 and

14, and the lowest means in items 4, 8, 17. The SSPIC had the highest means in items 3, 5 and 10 and the lowest means in items 11, 1 and 7 (Figure 2).

Figure 2 - Description of the highest and lowest means of the items answered in the ICCS SSPIC. Guarulhos, SP, Brazil, 2016. (N = 397)



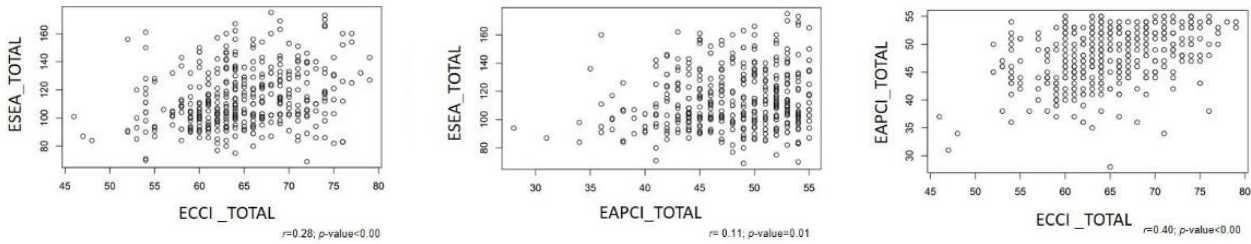
Source: Own elaboration (2020).

Legend: ICCS: Interpersonal Communication Competence Scale. SSPIC: Self-Assessment Scale on Professionalism and Competence in Interpersonal Communication between Nurses and Patients. μ : mean.

The AESS showed a positive and significant correlation with the ICCS and the SSPIC, which shows the relationship between academic satisfaction and nurses' interpersonal communication, that is, the greater the academic satisfaction, the better the communication skills. The positive and significant correlation between the communication scales, the ICCS and the SSPIC, indicates the coherence between the instruments (Figure 3).

Using multiple normal regression analysis, for the total ICCS score, for every 10 points of the AESS, the ICCS score increased, on average, by 0.75 points. The SSPIC, through the analysis of negative binomial regression, for each 1 increase in the AESS score, increased, on average, 0.64% the SSPIC score.

Figure 3 - Statistically significant correlations between scales. AESS versus ICCS; AESS versus SSPCIC; SSPCIC versus ICCS. Guarulhos, SP, Brazil, 2016. (N = 397)



Source: Own elaboration (2020).

Legend: AESS: Academic Experience Satisfaction Scale of Higher Education Students. ICCS: Interpersonal Communication Competence Scale. SSPCIC: Self-Assessment Scale on Professionalism and Competence in Interpersonal Communication between Nurses and Patients. r: Spearman's Correlation ratio. p-value: level of significance.

Regarding the numerical variables with the ICCS domains, there were significant and negative correlations in the Availability domain with training time ($r = -0.10$; $p\text{-value} = 0.03$) and age ($r = -0.18$; $p\text{-value} = 0.00$), which demonstrates that nurses with less training time and younger people have more availability in relationships, expressing concern for people, allowing others to see them as they really are and looking into the eyes of individuals when they speak with them. There were no statistically significant differences between the numerical variables with the SSPCIC.

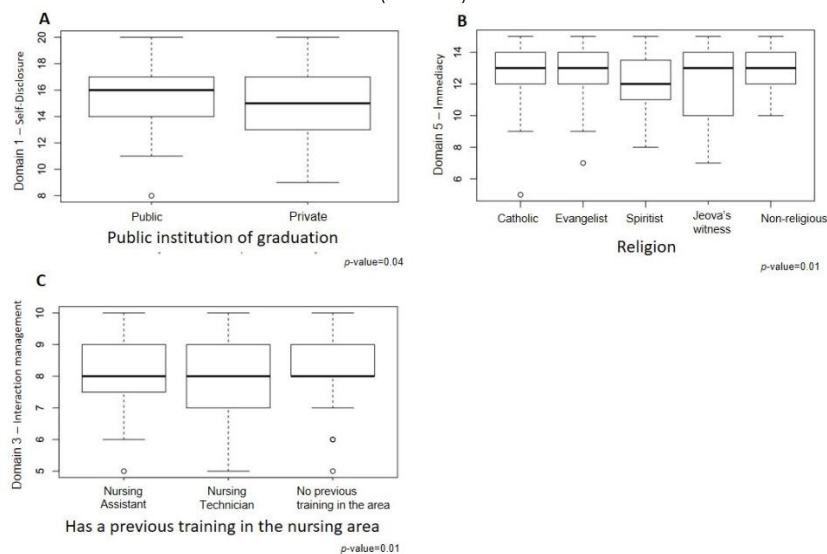
In results of the association of sociodemographic, training and professional characteristics with the ICCS domains, there were statistically significant differences when comparing the Self-disclosure domain with the training

institution, which indicates that nurses who studied in public institutions have greater ability to demonstrate feelings, ideas and thoughts through communication (Figure 4).

Statistically significant association of the domain Interaction Management with previous training, in the nursing area, indicates that those who did not have previous training, as a nursing assistant, demonstrate greater capacity both to demonstrate understanding and to perceive through non-verbal signals what people feel mainly when compared with nursing assistants (Figure 4).

There was also a significant association between the Availability domain and religion, in which Catholics were more accessible, open and available in relation to both evangelicals and spiritists (Figure 4).

Figure 4 - Statistically significant associations between sociodemographic and professional variables with ICCS. Guarulhos, SP, Brazil, 2016. (N = 397)



Source: Own elaboration (2020).

Legend: ICCS: Interpersonal Communication Competence Scale. p-value: level of significance. Result of the pairwise comparison using the Bonferroni method: B: catholic versus evangelical ($p\text{-value} 0.04$); Catholic versus Spiritist ($p\text{-value} 0.00$). C: without previous training in the area versus nursing assistant ($p\text{-value} 0.00$). A: Mann-Whitney test. B and C: Kruskal-Wallis test.

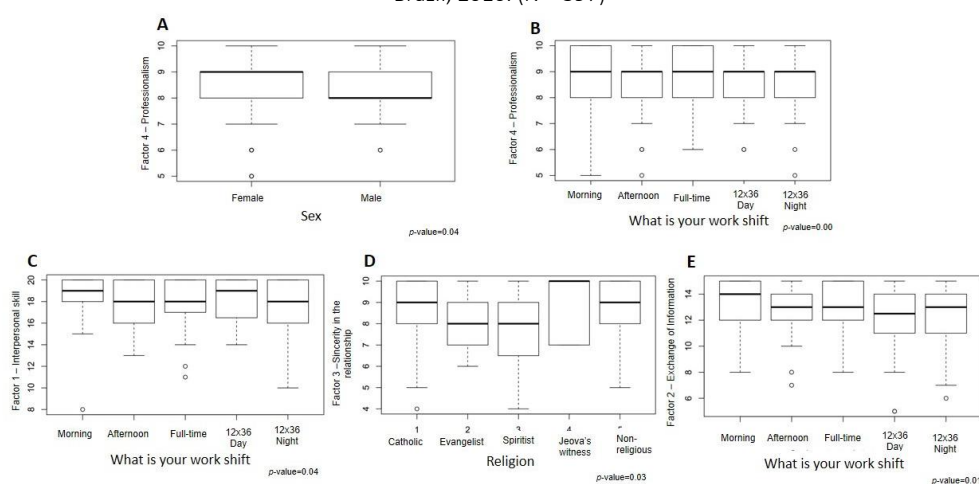
Considering the SSPCIC, there were statistically significant associations in the professionalism factor with sex and with the work shift, in which female nurses who work full-time classify their professionalism more positively than nurses who work during the day or night (Figure 5).

The comparison of the interpersonal ability factor with the work shift was also significant, which shows that nurses who work in the morning shift have a greater capacity to react better to the presence of the other, including gestures used, treatment to the other person, listening and interest in the other.

The statistically significant comparison of the sincerity factor in relation to religion shows that both those who declared themselves catholic and non-religious declared to be more sincere in the nurse-patient relationship and they tell the patients what is pertinent to them to know during the monitoring of their health (Figure 5).

The information exchange factor with a work shift obtained a statistically significant association and revealed that professionals who work in the morning or full-time shift are more able to transmit and receive pertinent information during the physical examination than those who work at night (Figure 5).

Figure 5 - Statistically significant associations between sociodemographic and professional variables with the SSPCIC. Guarulhos, SP, Brazil, 2016. (N = 397)



Source: Own elaboration (2020).

Legend: SSPCIC: Self-Assessment Scale on Professionalism and Competence in Interpersonal Communication between Nurses and Patients. p-value: level of significance. Result of the pairwise comparison using the Bonferroni method: B: catholic versus spiritist (p-value 0.00); without religion versus spirit (p-value 0.02). C: morning versus afternoon (p-value 0.00), morning versus 12x36 at night (p-value 0.02). D: morning versus 12x36 at night (p-value 0.01), integral versus 12x36 at night (0.01). E: integral versus 12x36 daytime (p-value 0.00), integral versus 12x36 nighttime (p-value 0.00). A: Mann-Whitney test. B, C, D and E: Kruskal-Wallis test.

In this study, nurses considered to be, in general, satisfied with the academic experience. In addition, academic satisfaction increased with competence in interpersonal communication and better self-assessment of professionalism. These findings corroborate those found in other studies in the literature⁽¹²⁻¹⁵⁾.

Academic satisfaction is higher, when nursing students feel included, supported during their learning journey, they have the opportunity to engage with colleagues and employees of the educational institution, that is, they have positive memories of interpersonal relationships during this training period⁽¹²⁾.

Students who performed extracurricular activities felt more satisfied with the institution, as they felt motivated, better prepared for the job market and had better performance in learning⁽¹⁶⁾.

These extracurricular activities certainly provided other experiences and relational opportunities for students.

In another study, the importance of the students experiencing situations in the area of activity is highlighted. Training should provide them with the necessary knowledge, to acquire technical-scientific and relational skills, sensitizing them and preparing them to face situations in the work environment⁽¹⁵⁾.

The relationship between academic satisfaction and communication is probably due to characteristics of the profession and the nurses' functions. The skill in interpersonal communication is a basic element for caring. Care requires both technical and practical knowledge, as well as involvement with others and the use of communication skills.

The improvement of knowledge and skills in interpersonal relationships should be permanently sought, as their lack can distance nurses from direct patients' care and, in addition, make these relationships superficial, impersonal and distanced from ideal care⁽¹⁷⁾. The training of nurses, to use interpersonal skills, enhances the possibilities of therapeutic relationships and overcoming barriers in relationships with patients, families and team⁽¹⁸⁾.

It is expected that the training prepares and contemplates contents, for the development of competences and skills, bringing confidence to nurses to perform what has been learned, in their work environment, in view of the complexity of the relationships and nursing care⁽¹⁹⁾.

In the current research, the availability for communication, perceiving and understanding the other was greater in younger nurses and with less training time. Over time, personal values change. At the beginning of careers, there is a greater tendency to be open to changes, willingness to explore, appreciate and stimulate, indicating that, throughout the professional trajectory, values and attitudes vary due to priorities at work⁽²⁰⁾.

The finding that the interaction with the other that involves bidirectional feedback, of involvement was greater in nurses who did not have previous training in the nursing field, were not nursing assistants or technicians, converges to the question of age and time of training, because, without previous experience, the pleasure of discovery is notorious and makes the individual pay more attention to his actions and reactions.

A study carried out in Iran identified a significant relationship between age and the communication of nurses who worked in health centers. The ability to speak, listen and the frequency of feedbacks decreased with increasing age, showing a reduction in the willingness to communicate over time⁽²¹⁾.

Another piece of evidence found in this study was that the type of institution, public or private, influenced interpersonal communication; those who studied at public universities showed more ability to express feelings and thoughts.

Findings of a survey conducted with nurses from a public college in Istanbul, Turkey, corroborate those currently found. Professionals trained in a public institution differed from other professionals, had a better performance in knowledge, professional expectations, teamwork and communication⁽²²⁾.

In this study, professionalism was best rated in female participants who work full-time. Working

with the professional's self-assessment allows you to assess your own performance and recognize your strengths and what still need to be improved. It is important for professionals to critically and constantly analyze their own work⁽²³⁾.

Female students exhibit greater empathy than male students. Empathy is an important element of care, as it strengthens the relationship between patients and health professionals, improves job satisfaction and, consequently, promotes better clinical results for patients⁽²⁴⁾.

The main limitation of this study was that it was not possible to assess the dimension of nurses' non-verbal communication. Scales used focus on verbal communication, with other studies pertinent to assess communication in other dimensions.

CONCLUSIONS

The more satisfied with the academic experience, the greater the competence in interpersonal communication and the better the self-assessment of professionalism.

Interpersonal communication differs positively with training time, age, sex and religion, as well as with the type of training institution, whether or not they had prior training in the field of nursing and work shift. Individual's perception of his professionalism changes with sex and work shift.

This study also contributed for nurses to have the opportunity to reflect on the relationship between knowledge and training with communication skills, so it can be said that the improvement of nurses' interactions with patients, families and team, depend both knowledge and communication skills.

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