

Empathy assessment among nursing undergraduates

Avaliação da empatia de graduandos de enfermagem
Evaluación de la empatía de estudiantes universitarios de enfermeríaIsabel Amélia Costa Mendes¹  <https://orcid.org/0000-0002-0704-4319>Suzel Regina Ribeiro Chavaglia²  <https://orcid.org/0000-0001-7033-0185>Simone de Godoy¹  <https://orcid.org/0000-0003-0020-7645>Ítalo Rodolfo Silva³  <https://orcid.org/0000-0002-2882-1877>Emerson Willian Santos Almeida¹  <https://orcid.org/0000-0002-6846-021X>Mirella Castelhanu Souza⁴  <https://orcid.org/0000-0001-9036-3304>

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Keywords

Empathy; Nursing education; Communication; Interpersonal relations

Descritores

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Descriptores

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Abstract

Objective: To verify the degree of empathy of students attending the nursing program of a public university located in southeastern Brazil and assess their profile regarding the domains: Perspective Taking, Interpersonal Flexibility, Altruism, and Affective Sensibility.

Methods: Exploratory study conducted among undergraduate nursing students, using the Empathy Inventory (EI), a 40-item instrument designed to assess four dimensions of empathy.

Results: Of the total of 193 participants, 88.6% were women, 78.7% were under 25 years of age, with a mean of 23.4 years old (SD=±4.8). Regarding the semester, 89 (46.%) were attending between the first and fourth semesters, 74 (38.4%) between the fifth and eighth semesters, and 30 (15.5%) were attending the ninth or tenth semester. The undergraduate students presented empathy skills.

Conclusion: The nursing undergraduate students scored above the mean in all the dimensions assessed by the EI, showing a high level of empathy.

Resumo

Objetivo: Verificar o grau de empatia de estudantes de enfermagem de um curso de universidade pública de um estado da região Sudeste do Brasil e avaliar seu perfil em relação aos domínios: Tomada de Perspectiva, Flexibilidade Interpessoal, Altruísmo e Sensibilidade Afetiva.

Métodos: Estudo exploratório, desenvolvido com estudantes de graduação em enfermagem, utilizando-se o Inventário de Empatia (IE), instrumento composto de 40 questões empregadas para avaliar quatro dimensões da empatia.

Resultados: Do total de 193 participantes, 88,6 era do sexo feminino, sendo 78,7% menores de 25 anos de idade e média de idade de 23,4 anos (DP = ±4,8). Quanto ao período do curso 89 (46,1%) estavam entre o primeiro e quarto, 74 (38,4%) entre o quinto e oitavo, e 30 (15,5%) eram do nono e décimo semestre. Verificou-se que os graduandos possuem habilidade de empatia.

Conclusão: Os graduandos de enfermagem apresentaram escores acima da média em todas as dimensões avaliadas pelo IE, demonstrando que possuem um alto índice de empatia.

Resumen

Objetivo: Verificar el nivel de empatía de estudiantes de enfermería de una carrera de universidad pública en un estado de la región Sudeste de Brasil y evaluar su perfil con relación a los dominios: Toma de perspectiva, Flexibilidad interpersonal, Altruismo y Sensibilidad afectiva.

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Conflitos de interesse: nada a declarar.

Métodos: Estudio exploratorio, realizado con estudiantes universitarios de enfermería, utilizando el Inventario de Empatía (IE), instrumento compuesto por 40 preguntas para evaluar cuatro dimensiones de la empatía.

Resultados: Del total de 193 participantes, 88,6 eran de sexo femenino, el 78,7 % menores de 25 años y un promedio de edad de 23,4 años (DP = ±4,8). Con relación al período de la carrera, 89 estudiantes (46,1 %) estaban entre el primer y cuarto semestre, 74 (38,4 %) entre el quinto y el octavo y 30 (15,5 %) cursaban el noveno y décimo semestre. Se verificó que los estudiantes tienen habilidades de empatía.

Conclusión: Los estudiantes universitarios de enfermería presentaron puntuaciones superiores al promedio en todas las dimensiones evaluadas por el IE, lo que demuestra que poseen un alto índice de empatía.

Introduction

Empathy, widely acknowledged as essential in a helping relationship, can be defined but not described; it is only experienced and recognized.⁽¹⁾ Empathy is considered intrinsic to professions in the health field, considering that nurses, physicians, and physical therapists, among others, are supposed to use empathy, putting themselves in place of patients to ground their professional practice.⁽²⁾

Empathy is believed to correspond to improved understanding that is expressed in a way people feel understood. Hence empathy becomes a social skill.^(3,4) Studies addressing this topic have increased in recent years in various professions within the nursing field such as medicine,⁽⁵⁾ Education,⁽⁶⁾ varied health professions,⁽⁷⁾ cultural orientation,^(8,9) marketing,⁽¹⁰⁾ Nursing,⁽¹¹⁻¹⁵⁾ care-ethics laboratory,⁽¹⁶⁾ and Nutrition and dietetics,⁽¹⁷⁾ among others.

The experiences in the Nursing field that lead to the development of empathic behavior begin within undergraduate training with simulated practice, and permeates the entire trajectory of nursing workers. It is a critical component of the nurse-patient relationship and demands self-knowledge to share a patient's feelings.⁽¹⁸⁾

The empathic profile⁽¹²⁾ of nursing workers has been assessed using the Empathy Inventory (EI).⁽³⁾ This same instrument was adopted in this study to verify the level of empathy of nursing undergraduates attending a public university located in southeastern Brazil. Their empathy profiles were assessed considering the following domains: Perspective Taking, Interpersonal Flexibility, Altruism, and Affective Sensibility.

Methods

This exploratory study was conducted with undergraduate students. Data were collected according to

ethical and legal guidelines concerning research addressing human subjects. Thus, this study was initiated after the participants gave their consent and signed free and informed consent forms (Protocol 1348/2011). Additionally, considering the participants were approached during classes, data collection proceeded after the professors, responsible for the courses/classes, gave their consent.

Inclusion criteria were: being an undergraduate student attending the nursing program previously mentioned, regardless of the semester. Exclusion criteria were: students on sick leave or absented on the day of data collection. A convenience sample was used, and participants were invited moments before data were collected.

Data were collected in March 2019.

Two questionnaires were used to collect data, one to characterize the sample (sex, age, and semester) and Empathy Inventory (EI),⁽³⁾ whose primary author provided her consent.

EI contains 40 questions assessing four dimensions of empathy: Perspective Taking, Interpersonal Flexibility, Altruism, and Affective Sensibility⁽¹⁹⁾ rated on a 5-point Likert scale where (1) never, (2) rarely, (3) regularly, (4) almost always, and (5) always.

Seventeen of the 40 items are reverse scored to obtain the final score. Hence, in these items, when the respondents chose answer 5, the score is reversed and equals 1, or vice-versa; 4 becomes 2, or vice-versa; while option 3 does not change.

Data were coded and entered twice into an Excel spreadsheet. After checking for consistency, data were transferred to and analyzed using IBM SPSS Statistics, version 25.

The descriptive analysis presented the absolute and relative frequencies of the variables sex, course and semester in which the student is enrolled, along with minimum, maximum, median, mean, and

standard deviation for the variables age and each of the EI's components.

The Spearman's coefficient of correlation was used to verify the relationship between age and semester with the scale's components. The Mann-Whitney test was applied to compare the scores obtained by men and women in the four components; according to the Shapiro-Wilk test, the variables were not normally distributed.

The level of significance established for the statistical analysis was $p=0.05$.

Results

A total of 193 nursing undergraduate students enrolled in a public university located in the interior of southeastern Brazil participated in the study. Most were women, 171 (88.6%), under the age of 25, 152 (78.7%); 23.4 years old on average ($SD=\pm 4.8$). Regarding the course's semester, 89 (46.1%) were attending between the first and fourth semesters, 74 (38.4%) were between the fifth and eighth semesters, and 30 (15.5%) were attending the ninth or tenth semester.

Similar to the original study, the Cronbach's alpha for each instrument's components and full scale presented satisfactory values (Table 1); values equal to or above 0.70 are considered satisfactory.

Table 1. Empathy Inventory scores obtained by the nursing undergraduate students ($n=193$) attending a public institution

Factors	Minimum	Maximum	Median	Mean(SD)	Cronbach's alpha
Perspective Taking	1	5	4	3.8(1.0)	0.82
Interpersonal Flexibility	1	5	3	3.2(1.1)	0.76
Altruism	1	5	4	3.7(1.1)	0.70
Affective Sensibility	1	5	4	4.2(1.0)	0.72
Total	1	5	4	3.7(1.1)	0.81

The Mann-Whitney test compared the mean scores obtained by men and women in each of the EI's components and a significant difference was found among women regarding Affective Sensibility ($p=0.010$) (Table 2).

The component Affective Sensibility presented an inverse correlation with the semester variable

Table 2. Comparison of the mean scores obtained by female ($n=171$) and male nursing undergraduates ($n=22$) from a public institution

Dimensions/Sex	Minimum	Maximum	Median	Mean(SD)	p-value*
Perspective Taking					0.497
Women	2.6	5.0	3.8	3.8(0.5)	
Men	1.9	4.9	3.9	3.6(0.8)	
Interpersonal Flexibility					0.633
Women	1.2	4.6	3.2	3.2(0.6)	
Men	2.2	4.6	3.3	3.3(0.6)	
Altruism					0.984
Women	1.8	4.8	3.8	3.7(0.6)	
Men	3.0	4.7	3.9	3.7(0.6)	
Affective Sensibility					0.010
Women	2.6	5.0	4.3	4.2(0.5)	
Men	3.1	4.9	3.8	3.9(0.5)	
Total					0.380
Women	2.8	4.7	3.8	3.8(0.3)	
Men	2.8	4.6	3.8	3.7(0.5)	

* Mann-Whitney Test

($p=0.032$), that is, the more advanced a student is into the program, the lower the score (Table 3). The remaining dimensions did not appear correlated with age or the semester.

Table 3. Spearman's correlation coefficient between mean scores obtained in the Empathy Inventory's dimensions, age, and semester among nursing undergraduate students ($n=193$) from a public institution

Dimensions	Age		Semester	
	Coefficient	p-value	Coefficient	p-value
Perspective Taking	-0.087	0.230	-0.141	0.050
Interpersonal Flexibility	-0.024	0.739	0.065	0.371
Altruism	-0.119	0.098	-0.094	0.195
Affective Sensibility	-0.066	0.365	-0.155	0.032
Total	-0.121	0.095	-0.118	0.101

Discussion

The results are in line with studies addressing nursing undergraduates, in which most are female students aged 23 years old on average.^(13,15)

The results also show that the participants presented good empathy skills, which are essential in nursing practice and other professions within the health field.^(2,5,7,10,13-17-21)

The undergraduate students scored above the mean in all the EI's dimensions, regardless of sex. Note that the highest scores were obtained in the dimension "Affective Sensibility", with a significant difference between women and men ($p=0.010$);

women seem to be more attentive and considerate with other people's emotional state, also recognizing that others need to feel better, which is exemplified by the highest percentage (90.2%) of answers to item 34 "During a conversation, I try to show interest toward the other person and adopt an attentive posture." This result indicates that greater affective sensitivity is not uncommon; so much that studies question whether the nursing profession would be attractive to men,⁽²²⁾ considering it is a profession strongly linked to the provision of care; male nurses are assumed to be able to feel empathy toward those to whom they provide care.

In the sequence, the "Perspective Taking" dimension shows a large portion of the undergraduates already adopts a careful attitude and has no difficulty understanding feelings and perspectives different from their own. Item 33, "I usually put myself in place of the person telling me a problem to see how I would feel and what I would think if I was in that situation," obtained the highest number of answers (81.8%).

Regarding the "Altruism" dimension, the participants did not tend toward selfishness; that is, most (84.9%) undergraduates checked the answer never/rarely in response to item 20, "If someone owes me any money, I collect the debt immediately, even if the person has motives that justify the non-payment."

In response to dimension "Interpersonal Flexibility," the students show they accept different points of view and seek understanding when facing conflicting situations. Most (57.5%) checked the answer never/rarely in response to item 24, "When someone is hostile, I respond in the same way."

The EI's internal consistency, verified with Cronbach's alpha, was 0.81 for the total scale, though no acceptable values were found for the Interpersonal Flexibility and Altruism dimensions. Other studies using the EI obtained good internal consistency for all the dimensions.^(4,23)

Most female undergraduate students presented good empathic skills, as reported by other studies assessing empathy among college students.^(5-7,12-17,21) These results are related to the fact that girls, since childhood, develop behaviors such as providing

care and comforting, which are also intrinsic to the nursing care practice. Considering that empathy is an ability that can be developed and is related to the establishment of bonds, sensitization, and involvement among two or more individuals, these are abilities girls develop since childhood under the influence of parental care practices.⁽²³⁾

It is worth noting that as health care practices become increasingly technology-based, thereby become increasingly distant from interactions with patients, it is crucial to maintain empathy at the center of the interactions established with patients. Thus, nursing professors are recommended to devise creative approaches to address empathy among students, using simulations and scenarios to promote empathic behavior.⁽²⁴⁾ Professors should be attentive even in controlled teaching-learning environments and encourage empathic thinking and the practice of empathy among students during simulations. This behavior among professors reveals an empathy behavior toward students, sets the example, and promotes the adoption and incorporation of empathy among students.

Identifying nursing students with low levels of empathy indicates they should be a priority to receive in-depth training intending to improve their empathic skills, considering the interpersonal relationships these students will establish with patients. Hence, professors should make an effort to promote empathy-based nursing education, especially considering that this profession encompasses therapeutic relationships.⁽¹¹⁾

This study's limitation refers to the fact that a small percentage of students attending the last semesters was addressed, which does not allow verifying any changes in empathic behavior. Hence, more extensive studies are needed in the future.

Conclusion

The results show that nursing undergraduates scored above the mean in all the dimensions assessed by the EI, revealing a high level of empathy. Therefore, these students already possess essential skills for the nursing practice, with an emphasis on women scoring higher in the Affective Sensibility dimension.

Collaboration

Mendes IAC, Chavaglia SRR, Godoy S, Silva IR, Almeida EWS and Souza MC collaborated with the study's conception and design, data analysis and interpretation, redaction, critical review of the intellectual content, and approved the manuscript's final version.

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