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PATIENT-CENTERED CARE: A PERSPECTIVE ON CARING AND SHARING PRACTICES IN THE HEALTH EDUCATION PROCESS

CUIDADO CENTRADO NO PACIENTE: UM OLHAR SOBRE AS PRÁTICAS DE CUIDAR E COMPARTILHAR NO PROCESSO DE EDUCAÇÃO EM SAÚDE

ATENCIÓN CENTRADA EN EL PACIENTE: UNA MIRADA A LAS PRÁCTICAS DE CUIDAR Y COMPARTIR EN EL PROCESO DE EDUCACIÓN PARA LA SALUD

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ABSTRACT: Objective: To analyze the attitudes of centrality in the patients of speech therapy, nursing, and dentistry students in relation to the practice of care and sharing. **Methodology:** Cross-sectional research design with 177 students in nursing, speech therapy, and dentistry courses. Data were collected from April to September 2021, using the Patient-Practitioner Orientation Scale as a measure of outcome. **Results:** A higher tendency of speech therapy students was identified to favor patient-centered care than nursing and dentistry students. None of the independent variables in this study were a predictor of patient-centered care. **Conclusion:** The average Patient-Practitioner Orientation Scalescores of the students indicated attitudes of centrality in the patient, but without statistical significance among the groups analyzed. The attitudes of patient centrality observed during the academic process of health education are an important result

of the search for strategies that stimulate academic dialogue, safety and the quality of health care.

KEYWORDS: Health Science Students. Patient-Centered Care. Teaching.

RESUMO: ***Objetivo:*** *Analisar as atitudes de centralidade no paciente entre estudantes de fonoaudiologia, enfermagem e odontologia em relação às práticas de cuidado e compartilhamento.* ***Metodologia:*** *Pesquisa transversal com 177 estudantes de cursos de enfermagem, fonoaudiologia e odontologia. Os dados foram coletados entre abril e setembro de 2021, utilizando a Escala de Orientação Paciente-Profissional como medida de desfecho.* ***Resultados:*** *Foi identificada uma maior tendência dos estudantes de fonoaudiologia em favorecer o cuidado centrado no paciente em comparação com os estudantes de enfermagem e odontologia. Nenhuma das variáveis independentes deste estudo foi um preditor do cuidado centrado no paciente.* ***Conclusão:*** *As médias dos escores da Escala de Orientação Paciente-Profissional dos estudantes indicaram atitudes de centralidade no paciente, mas sem significância estatística entre os grupos analisados. As atitudes de centralidade no paciente observadas durante o processo acadêmico da educação em saúde são um resultado importante da busca por estratégias que estimulem o diálogo acadêmico, a segurança e a qualidade do atendimento em saúde.*

PALAVRAS-CHAVE: *Estudantes de Ciências da Saúde. Cuidado Centrado no Paciente. Ensino.*

RESUMEN: ***Objetivo:*** *Analizar las actitudes de centralidad del paciente entre estudiantes de logopedia, enfermería y odontología en relación a la práctica del cuidado y el compartir.* ***Metodología:*** *Estudio transversal con 177 estudiantes de cursos de enfermería, logopedia y odontología. Los datos se recolectaron entre abril y septiembre de 2021, utilizando la Escala de orientación paciente-profesional como medida de resultado.* ***Resultados:*** *Se identificó una mayor tendencia de los estudiantes de logopedia a favorecer la atención centrada en el paciente en comparación con los estudiantes de enfermería y odontología. Ninguna de las variables independientes en este estudio fue un predictor de la atención centrada en el paciente.* ***Conclusión:*** *Los puntajes promedio de Escala de orientación paciente-profesional de los estudiantes indicaron actitudes de centralidad en el paciente, pero sin significación estadística entre los grupos analizados. Las actitudes de centralidad del paciente observadas durante el proceso académico de educación en salud son un resultado importante de la búsqueda de estrategias que estimulen el diálogo académico, la seguridad y la calidad de la atención a la salud.*

PALABRAS CLAVE: *Estudiantes de Ciencias de la Salud. Atención centrada en el paciente. Enseñanza.*

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INTRODUCTION

In recent decades, studies have shown that individuals seeking healthcare services are increasingly aware of the need for active participation and the exercise of their autonomy regarding aspects related to their health. This movement is grounded in the principle that the relationships established between healthcare professionals and patients, as well as the services and practices derived from these relationships, can enhance the effectiveness of care, foster greater adherence to treatment, improve disease management outcomes, and increase patient satisfaction. Furthermore, the recognition and active participation of individuals in health-disease processes are crucial for promoting quality care, and addressing biological, psychological, and social outcomes in a satisfactory manner (Haidet *et al.*, 2002; Henbest; Stewart, 1990; Jiang, 2017; Levinson; Lesser; Epstein, 2010; Nichols *et al.*, 2021; Zolnierek; DiMatteo, 2009).

In this context, the Patient-Centered Care (PCC) model emerges as a key element in the relationship between healthcare professionals and patients, as it also considers patients' preferences, concerns, and emotions regarding effective health outcomes. This approach was proposed in the Report of the Committee on Quality of Health Care in America, published by the Institute of Medicine in 2001 (Institute of Medicine, 2001).

The Patient-Practitioner Orientation Scale (PPOS) is a validated and widely used tool to evaluate the implications of patient-centered care interventions (Krupat *et al.*, 2000). This self-report scale can be applied to students, healthcare professionals, and patients to estimate attitudes centered on either the patient or the disease and/or the physician/professional. Studies utilizing this scale to analyze patient-centered attitudes have reported scores that vary based on location, context, and professional training (Beattie *et al.*, 2012; De Silva, 2014; Dockens; Bellon-Harn; Manchaiah, 2016; Fothan; Eshaq, Bakather, 2016; Grilo *et al.*, 2018; Ishikawa *et al.*, 2018; Krupat *et al.*, 2000; Laplante-Lévesque; Hickson; Grenness, 2014; Madhan; Rajpurohit; Gayathri, 2011; Manchaiah *et al.*, 2014; Mudiyanse *et al.*, 2015; Peixoto; Ribeiro; Amaral, 2011; Pereira, 2012; Perestelo-Pérez *et al.*, 2021; Ribeiro; Amaral, 2008; Rosewilliam *et al.*, 2019; Wang *et al.*, 2017; Wang; Liu; Zhang, 2020; Zhumadilova; Craig; Bobak, 2018).

These studies predominantly indicate that patient centrality involves aspects related to the patient's active participation in health-related decisions and choices, as well as the need to establish a balanced power relationship between patients and professionals. Moreover, they highlight that patient-centered orientation can act as a determinant of these relationships, being relevant for the adoption of best practices and quality standards in healthcare (Beattie *et al.*, 2012; Fothan; Eshaq, Bakather, 2016; Grilo *et al.*, 2018; Ishikawa *et al.*, 2018; Laplante-Lévesque; Hickson; Grenness, 2014; Madhan; Rajpurohit; Gayathri, 2011;Manchaiah *et al.*,

2014; Mudiyanse *et al.*, 2015; Pereira, 2012; Perestelo-Pérez *et al.*, 2021; Rosewilliam *et al.*, 2019; Wang *et al.*, 2017; Wang; Liu; Zhang, 2020; Zhumadilova; Craig; Bobak, 2018).

Studies addressing Patient-Centered Care (PCC), involving students from various healthcare fields and adopting the Patient-Practitioner Orientation Scale (PPOS) as a methodological tool, have shown variations in responses, with attitudes predominantly centered on either the disease/physician or the patient. For instance, research conducted among Brazilian, American, and Saudi students, particularly in the field of medicine, indicates highly positive attitudes toward patient-centered care, with scores demonstrating a self-reported preference for patient centrality over disease centrality (Dockens; Bellon-Harn; Manchaiah, 2016; Fothan; Eshaq, Bakather, 2016; Haidet *et al.*, 2002; Manchaiah *et al.*, 2014 Ribeiro; Amaral, 2008).

On the other hand, studies conducted in Asia, among students in Nepal (Shankar *et al.*, 2006) in 2006, Greece (Tsimtsiou *et al.*, 2007) em 2007, and Pakistan (Ahmad *et al.*, 2015) point to a trend toward disease and physician centrality, adhering to the tradition of a biomedical and assistive model. Researchers argue that, although students enter health professions such as medicine with the intent to heal patients, they are only trained to cure diseases. Thus, medical education systems do not mandate the development of approaches that prioritize understanding the patient and their role as determinants in health-disease processes, nor do they emphasize the importance of dialogue and communication in establishing connections that enable care to be a shared responsibility (Ahmad *et al.*, 2015; Lloyd-Williams, 2004; Waqas *et al.*, 2015).

Over the past two decades, health educators, particularly driven by the principles outlined in the national curricular guidelines for health programs, have recognized the importance of preparing students and trainees in various competencies related to Patient-Centered Care (PCC). This recognition has led to the need to include curricular content focused on communication skills, professional values, and humanistic and behavioral attitudes (Haidet *et al.*, 2006). These curricular changes have been essential in developing an awareness that the ways in which teaching and learning processes are conducted can influence students' attitudes and behaviors, either more or less centered on the patient (Benedetto; Gallian, 2018). Moreover, these changes aim to reduce existing gaps between the educational process and professional practice in healthcare, whose historical trend is still often conditioned by organicist principles, rather than considering the biopsychosocial determinants of the health-disease process and, consequently, the patient's living conditions (Bellon-Harn; Manchaiah, 2016; Haidet *et al.*, 2002; Dockens; Hilary, 1998).

Furthermore, the modes of interaction established between professors, students, and patients throughout academic activities, as well as the education grounded in recognizing the importance of patient-centered theoretical-practical approaches, also emphasize the urgency of overcoming inconsistencies between pedagogical practices exclusively guided by biomedi-

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cal models and the principles and knowledge addressed during the development of the courses. In other words, it is necessary to bridge the contradictions and gaps between what is theoretically addressed and what is experienced, particularly during internships, by students, to ensure that there is no deterioration of patient-centered knowledge, behaviors, and attitudes (Hafferty, 1998; Haidet *et al.*, 2002; Mehta *et al.*, 2021; Nazario, 2009; Sobczak; Zdun-Ryzewska; Rudnik, 2021).

Thus, we understand that the consolidation and improvement of academic-professional education, which prioritizes an ethical stance and conceives the patient as the center of care, implies that the patient desires to be cared for by a specific type of professional. In addition to technical competence, the professional must be capable of particularly embracing the patient's views, positions, doubts, and suffering, conceiving them as a human being in progress, socially and historically constituted. Therefore, to develop a professional character that prioritizes ethical reflection and the patient as the center of care, it is essential to understand that each individual is shaped by macro and microstructural determinants. Based on their knowledge of the world and their subjectivity, they seek explanations for their illness and ways to cope with it, yearning for respect and support in their health-disease process (Balint, 2005; Benedetto; Gallian, 2018; Ribeiro; Krupat; Amaral, 2007; Tor, 2001).

In light of the above, it is emphasized that the hypothesis of this study is grounded in the understanding that the Patient-Centered Care (PCC) approach involves conceptions about individuals, health, illness, and care, which are determinants in defining a way of understanding and acting in the health context.

Based on these premises, the objective of this study is to analyze the attitudes of students in Speech Therapy, Nursing, and Dentistry regarding patient centrality, in relation to care practices and shared decision-making.

METHOD

This study was conducted in accordance with the guidelines of the "Strengthening the Reporting of Observational Studies in Epidemiology (STROBE)", initiative, which aims to enhance the quality of communication in observational studies in epidemiology (Malta *et al.*, 2010).

Study Design

The methodological procedures of this research involved a quantitative and cross-sectional approach, using an instrument that was previously translated, validated, and culturally adapted into Portuguese (Brazil) in 2012. The scale used was the Patient-Practitioner Orientation Scale (PPOS), originally developed to assess the healthcare professional's orientation

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towards the patient. This version was validated into Portuguese as the Escala de Orientação Médico-Paciente (EOMP) (Pereira, 2012).

Participants

A total of 177 undergraduate students in Nursing, Speech Therapy, and Dentistry participated in the study. Inclusion criteria for the research participants were: (1) enrollment in undergraduate programs in Nursing, Speech Therapy, and Dentistry; (2) being in any semester of the program, regardless of having taken courses involving direct patient contact; (3) being over 18 years of age.

Variables

To analyze Patient-Centered Care (PCC), the PPOS was used to assess attitudes centered on the patient. The results obtained through the scale indicate whether the healthcare professional is more patient-centered or disease-centered. It is important to note that the instrument's psychometric properties confirm its validity and reliability (Krupat *et al.*, 2000).

The scale consists of eighteen statements related to two dimensions of the patient: Sharing and Care, which are evaluated on a six-point Likert scale, where 1 corresponds to "strongly agree" and 6 to "strongly disagree." Higher scores represent a patient-centered approach for all items, while lower scores correspond to a physician- or disease-centered orientation. The authors of the original scale divide the total score into three groups: high (score ≥ 5.00, corresponding to a patient-centered orientation), medium (4.57 < score < 5.00), and low (score ≤ 4.57), corresponding to a disease- or healthcare professional-centered orientation. The results for the Sharing and Care dimensions can be obtained by averaging the values of the nine items corresponding to each domain, respectively (Krupat *et al.*, 2000).

Additionally, scores for the assessment of PCC were also analyzed using a sociodemographic questionnaire, considering possible confounding factors such as age, gender, field of study, parents as healthcare professionals, extracurricular internships, other degree programs, personal and/or family hospitalization experience, and semester of the program.

Data Collection

Data were collected from students in various semesters of the undergraduate programs in Nursing, Speech Therapy, and Dentistry at three Higher Education Institutions (HEIs), two of which were private and one public. The data collection was conducted individually and online, using the Medical Patient Orientation Scale (EOMP) to assess the students' attitudes toward patient-centered care through the translated and adapted version of the Patient-Practitioner

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Orientation Scale (PPOS) between April and September 2021. The survey was conducted on the online platform SurveyMonkey Audience (SurveyMonkey Inc., s. d.).

After consenting to participate in the study, the undergraduate students completed a sociodemographic questionnaire to characterize the sample and subsequently responded to the translated PPOS instrument (Krupat *et al.*, 2000), Portuguese version (EOMP) (Pereira, 2012). At the end of the responses, participants were directed to a validation questionnaire to confirm their participation.

It is important to highlight that data collection began only after the ethical approval of the study, as per the decision by the Research Ethics Committee of UTP (CEP/UTP), under number 4.349.413.

Statistical Analysis

The Shapiro-Wilk test was applied to assess the normality of the data, while Levene's test was used to verify the homogeneity of variances. The association between independent variables and the impact on the PPOS questionnaire scores was analyzed, considering the dimensions "Care," "Sharing," and "Total." Since the data demonstrated normal distribution and homoscedasticity, the scores for each dimension were tested using one-way analysis of variance (ANOVA One-Way) when the independent variable had more than two levels of classification. For comparisons between the two groups, the Student's t-test for independent samples was used. In cases where ANOVA resulted in significant values, pairwise comparisons were performed using the post-hoc Tukey test. All analyses were conducted using the Jamovi software (v.1.6), adopting a significance level of 5%.

RESULTS

This study included data from a total of 201 participants. However, 92 participants were excluded for not meeting the eligibility criteria, resulting in a final sample of 177 participants. Students aged between 18 and 24 years represented 58.2%, while only 4% reported being older than 45 years, with 6.8% being male and 93.2% female. The majority of participants were from the Speech Therapy program (51.4%), followed by Nursing students (42.4%) and, to a lesser extent, Dentistry students (6.2%), as shown in Table 1.

Table 1 – Characteristics of the study population

Sociodemographic Characteristics		n(%)
Gender	Male	12 (6,8)
	Female	164 (93,2)
Area of study	Nursing	75 (42,4)
	Speech Therapy	91 (51,4)
	Dentistry	11 (6,2)
Age of the group	Age 18-24	103 (58,2)
	Age 25-34	52 (29,4)
	Age 35-44	15 (8,5)
	>45	7 (4)
Relatives of healthcare professionals	Yes	13 (7,5)
	No	160 (92,5)
Extracurricular internship	Yes	58 (33,9)
	No	113 (66,1)
Other undergraduate course	Yes	12 (6,9)
	No	161 (93,1)
Personal hospitalization experience	Yes	49 (27,7)
	No	128 (72,3)
Family hospitalization experience	Yes	151 (85,3)
	No	26 (14,7)
Program semester	(mean ± SD)	5 ± 2

Source: Own elaboration.

Although 72.3% of the research participants reported no prior personal hospitalization experience, 85.3% indicated having experienced hospitalization within the family context. The detailed characteristics of the studied population are presented in Table 1.

Regarding the independent variables analyzed, none showed statistical significance in relation to the domains assessed by the PPOS questionnaire, as illustrated in Table 2.

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Table 2 – Comparison between explanatory variables and PPOS questionnaire results

Variable Predictor	Category	Care		Sharing		Total	
		Mean (DP)	*p-value*	*Meand (DP)*	*p-value*	*Mean (DP)*	*p-value*
Gender	Male	4,62(0,55)[a]	0,243	3,74(0,72)[a]	0,932	4,18(0,56)[a]	0,543
	Female	4,80(0,49)[a]		3,76(0,81)[a]		2,28(0,54)[a]	
Area of study	Nursing	4,75(0,53)[a]	0,499	3,63(0,84)[a]	0,053	4,19(0,57)[a]	0,099
	Speech Therapy	4,83(0,50)[a]		3,90(0,73)[a]		4,36(0,52)[a]	
	Dentistry	4,89(0,36)[a]		3,36(0,84)[a]		4,12(0,43)[a]	
Age of the group	Age 18-24	4,77(0,50)[a]	0,566	3,68(0,77)[a]	0,433	4,23(0,52)[a]	0,351
	Age 25-34	4,80(0,47)[a]		3,81(0,82)[a]		4,30(0,54)[a]	
	Age 35-44	5,00(0,57)[a]		4,08(0,88)[a]		4,53(0,61)[a]	
	> 45	4,67(0,60)[a]		3,59(0,82)[a]		4,13(0,56)[a]	
Relatives of Healthcare Professionals	Yes	4,86(0,52)[a]	0,682	3,58(0,97)[a]	0,453	4,22(0,62)[a]	0,724
	No	4,80(0,51)[a]		3,76(0,78)[a]		4,28(0,54)[a]	
Extracurricular Internship	Yes	4,75(0,46)[a]	0,407	3,71(0,79)[a]	0,537	4,23(0,50)[a]	0,401
	No	4,82(0,53)[a]		3,80(0,80)[a]		4,31(0,56)[a]	
Other Degree	Yes	5,03(0,59)[a]	0,128	3,76(0,73)[a]	0,999	4,39(0,56)[a]	0,483
	No	4,79(0,50)[a]		3,76(0,81)[a]		4,27(0,54)[a]	
Experience with personal hospitalization	Yes	4,84(0,39)[a]	0,559	3,88(0,82)[a]	0,246	4,36(0,49)[a]	0,263
	No	4,79(0,54)[a]		3,71(0,78)[a]		4,25(0,55)[a]	
Experience with family hospitalization	Yes	4,79(0,47)[a]	0,492	3,77(0,76)[a]	0,589	4,28(0,51)[a]	0,931
	No	4,87(0,65)[a]		3,68(1,00)[a]		4,27(0,70)[a]	

Source: Own elaboration.

Although the students' attitudes reflect a predominantly patient-centered orientation, with shared control of information and focus on the person, the students of Speech Therapy presented the highest scores, with statistical significance in the domains of Sharing and Total ($p < 0.053$ and 0.099, respectively). These were followed by nursing students, who obtained higher scores than dentistry students in the same domains.

On the other hand, Dentistry students showed the highest average scores in the Care domain, although they recorded the lowest average values in the Sharing and Total domains. Table 3 provides a detailed analysis of this, presenting the mean scores and respective standard deviations for each item of the PPOS questionnaire.

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Table 3 – Scores obtained in the PPOS questionnaire for each item

PPOS Items (Significance ± DP)	Nursing	Speech Therapy	Dentistry
1. Should the health care professional decide what will be discussed in the consultation?	3,36 ± 1,84	3,82 ± 1,59	3,60 ± 1,96
2. Although healthcare professionals are more impersonal today, is this a small trade-off in exchange for advances in medicine?	3,63 ± 1,69	3,77 ± 3,20	3,20 ± 1,55
3. Is the most important part of the consultation the physical examination?	3,02 ± 1,78	4,56 ± 1,41	4,40 ± 1,71
4. Is it generally better for patients if they do not have a complete explanation of their medical (health) condition?	5,41 ± 1,36	5,52 ± 0,98	5,50 ± 1,27
5. Should patients trust their healthcare professionals' knowledge and not try to find out about their condition on their own?	2,88 ± 1,85	3,12 ± 1,85	2,00 ± 1,63
6. When health care professionals ask too many questions about the patient's history, are they intruding too much on personal matters?	5,77 ± 0,70	5,78 ± 0,49	6,00 ± 0,00
7. If healthcare professionals are really good at diagnosis and treatment, how they relate to patients is not so important.	5,88 ± 0,66	5,72 ± 0,97	5,40 ± 1,35
8. Do many patients continue to ask questions even when they have nothing more to learn in the consultation?	3,91 ± 1,77	4,13 ± 1,60	3,60 ± 1,71
9. Should patients be treated as if they were partners of the health professional with similar power, rights, and duties?	3,62 ± 1,81	3,96 ± 1,75	2,90 ± 1,97
10. Do patients generally want to be reassured rather than given information about their health?	3,22 ± 1,65	3,44 ± 1,59	3,60 ± 1,35

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11. If the main characteristics of a health professional (doctor/nurse/ speech therapist/dentist...) are to be sincere and friendly, will they not be very successful?	5,09 ± 1,35	5,06 ± 1,30	5,40 ± 0,96
12. When patients disagree with their healthcare professional, is it a sign that they don't have their patient's respect and trust?	4,02 ± 1,67	4,32 ± 1,39	3,60 ± 1,90
13. Can a treatment be unsuccessful if it conflicts with the patient's lifestyle or values?	4,97 ± 1,40	4,82 ± 1,54	4,80 ± 2,10
14. Do most patients want to get in and out of their healthcare professional's office as quickly as possible?	3,82 ± 1,68	3,44 ± 1,56	4,00 ± 1,70
15. Should the patient always be aware that the healthcare professional is in charge?	3,66 ± 1,73	3,81 ± 1,69	3,10 ± 1,66
16. Isn't it just as important to know the patient's culture and history in order to treat their illness?	5,89 ± 0,66	5,94 ± 0,28	5,90 ± 0,31
17. Is humor a key ingredient for the healthcare professional in treating the patient?	4,70 ± 1,60	4,33 ± 1,52	4,90 ± 1,29
18. When patients look for information about their state of health on their own, does this often confuse more than help?	2,62 ± 1,66	2,99 ± 1,59	2,30 ± 1,77
Total Scale	**4,19 ± 0,57**	**4,36 ± 0,51**	**4,12 ± 0,43**
Subscale Care	**4,75 ± 0,52**	**4,83 ± 0,50**	**4,89 ± 0,36**
Subscale Sharing	**3,63 ± 0,83**	**3,90 ± 0,73**	**3,36 ± 0,84**

Source: Own elaboration.

DISCUSSION

This study found higher CCP scores for speech therapy students than for nursing and dentistry students. The findings of this research regarding PPOS scores are consistent with

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previous studies conducted with students from various health fields, which indicated a self--reported preference for patient-centered care. These include a study conducted in the United States in 2016 with 93 Speech Therapy students, which indicated a high preference for patient centrality, with a mean PPOS score of 4.13 ± 0.5, similar to our findings for Speech Therapy students, who had mean scores of 4.36 ± 0.51 (Dockens; Bellon-Harn; Manchaiah, 2016). However, in this study, we found a difference between the subscales of Sharing and Care, with the Sharing scale scores being higher than the Care scale scores, which contrasts with our study's findings. This result may suggest that patient-centered care is directly related to the subjective nature of its object of study and intervention—oral and written language. Therefore, the training of Speech Therapists should focus on understanding the complexity involved in the appropriation, development, and use of these language modalities and the constitution of the individuals involved.

Finally, such findings may be related to national guidelines that direct academic-professional training processes to prioritize the comprehensiveness of individuals and, thus, the biological, cultural, educational, and economic determinants that historically and collectively constitute them (Duchan, 2001). Moreover, the authors emphasize and argue that the focus on participation in the patient's life, involvement in clinical decision-making, and cultural sensitivity are essential factors in the therapeutic process (Dockens; Bellon-Harn; Manchaiah, 2016; Duchan, 2001).

Another study conducted with medical students in Saudi Arabia in 2017 indicated that the mean self-reported PPOS scores reflected patient-centered attitudes, with an overall score of 4.0 (±1.5), while the mean scores for the domains of Sharing and Care were 4.2 (±1.5) and 3.8 (±1.4), respectively. Similar to our study, Fothan (2019) reported no statistically significant differences between the independent variables listed and the PPOS scores in the domains of care, sharing, and total (Fothan, Eshaq, Bakather, 2019).

In a survey conducted in 2007 with 738 medical students, more patient-centered attitudes were found in Brazil. In this study, the total PPOS score was 4.66 (± 0.44), with the Care subscale score (5.20 ± 0.45) significantly higher than the Sharing subscale score (4.10 ± 0.66) (Ribeiro; Krupat; Amaral, 2007). This study is comparable to our findings regarding the students' self-reported preference for a patient-centered approach. However, our investigation presents much lower average scores when comparing the Sharing, Care, and Total domains presented by each field (Speech Therapy, Nursing, and Dentistry) individually. Moreover, the attitudes of Brazilian medical students investigated by these authors differ from those found in our research, as they mention independent variables, such as gender and beliefs, as predictors of CCP, which we did not observe in our findings.

Regarding gender, they considered the prevalence of CCP attitudes in women in the early years of education, evolving toward a disease-centered approach over time, as a ten-

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dency for women to adapt to the established institutional culture, which is physician- and disease-centered (Batenburg *et al.*, 1999). They also considered beliefs, which include, through culture and lived context, the ability to pay attention to the emotions, expectations, and lifestyles of patients to achieve satisfactory results aimed at health quality (Ribeiro; Krupat; Amaral, 2007).

This study contrasts with investigations conducted with medical students in Nepal in 2003, Greece from 2002 to 2005, and Pakistan in 2013, which indicate a trend toward a self-reported preference for disease- or physician-centered approaches. For example, in a study conducted in Nepal with 165 medical students, a low average PPOS score was reported compared to the literature for the Care (3.71 ± 0.48), Sharing (3.51 ± 0.55), and Total (3.91 ± 0.62) domains. Similarly, a study conducted in Greece with 483 medical students showed a decrease in PPOS scores, particularly in the Sharing domain, as students progressed in their academic training. In this study, only gender as an independent variable was identified as a predictor of patient-centered Care (CCP), with greater relevance in the early years. A decline in patient-centered attitudes was observed in subsequent years, especially in the Care domain (Tsimtsiou *et al.*, 2007).

Additionally, a cross-sectional survey conducted in Pakistan with 783 medical students revealed an average PPOS score of 3.40 ± 0.49, with lower values in the Sharing (3.18 ± 0.62) and Care (3.63 ± 0.48) domains. These results reflect a trend toward preferring disease- or physician-centered attitudes. Among the variables associated with CCP, advanced academic year and foreign origin were highlighted, although without statistical significance in relation to other variables such as gender or parental medical backgrounds. The authors noted that students could be divided between those who "only see the patient in the pages of books" and those who "interact with patients and perceive them as a whole," emphasizing the relevance of practical experiences and interactions in medical education from the early years (Ahmad *et al.*, 2007).

In general, when students are trained in an academic environment centered on disease and following an organicist model, they tend to adopt practices aligned with this biomedical paradigm, which was historically designed to address the physical demands of patients. However, when these same students observe professionals who, even without strictly adhering to this approach, demonstrate humane and effective practices, they may begin to reflect on what is truly meaningful in their professional practice (Tor, 2001).

The relationship between the professional and the patient is a determining element in healthcare delivery and influences outcomes affected by psychological, social, and biological factors (Balint, 2005; Ribeiro; Krupat; Amaral, 2007). Nevertheless, healthcare schools, particularly medical schools, still lack incentives for the development of communication skills, humanistic attitudes, and professional values. The predominant focus remains

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on teaching biomedical skills, to the detriment of these more comprehensive aspects (Branch,2001; Hafftery, 1998; Martimianakis *et al.*, 2015). Therefore, the issue is not to abolish the biomedical model of care, but rather to integrate complementary models that address gaps and deficiencies in health education, promoting a more holistic and patient-centered training (Benedetto; Gallian 2018).

Limitations and implications for practice

Patient-centered care is a key determinant of healthcare practice and is closely related to intrinsic patient health outcomes, such as increased patient satisfaction and treatment compliance. This directly impacts health promotion, interprofessional practice, professional--patient relationships, and the dialogue that permeates healthcare systems.

However, this study provides important data on patient-centered care in the health education process by highlighting patient-centered attitudes, considered in a cross-sectional design from the student's perspective. Analyzing attitudes in a longitudinal design, encompassing the entire academic education process, could help identify knowledge gaps still present in this process. Future research may also test curricular interventions that increase awareness and aim to change attitudes, as well as teaching skills and behaviors to ensure safe and high--quality healthcare practice.

Furthermore, the cross-sectional design may favor confounding and unmeasured factors, limiting inferences about causality and temporality.

FINAL CONSIDERATIONS

The attitudes of students in Speech Therapy, Nursing, and Dentistry toward Care and Sharing practices indicated a self-reported preference for patient-centeredness, with no statistically significant differences reported between the groups analyzed.

The attitudes identified throughout the academic training process in health indicate a significant shift toward overcoming the objectification of the individual, a characteristic of the historically dominant biomedical paradigm. This scenario presents a challenge that requires the promotion of continuous dialogue between educators, mentors, and students during the formative process. Such dialogue should aim to implement strategies that recognize and understand the relevance of professional-patient relationships, as well as foster attitudes that value this interaction, reinterpreting the concept of care and strengthening the practice of patient-centered care (PCC).

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