



Niveles de empatía y su asociación con características demográficas y académicas en estudiantes de terapia física.

Levels of Empathy and Their Association with Demographic and Academic Characteristics in Physical Therapy Students.

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Niveles de empatía y su asociación con características demográficas y académicas en estudiantes de terapia física.

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Autoría



Sergio Bravo-Cuccia: Diseño del estudio y análisis de los datos.
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Conflictos de intereses

Manifestamos la inexistencia de conflictos de intereses relacionados con este artículo. Ninguno de los autores tiene una asociación laboral, de investigación, comercial o moral que pueda influir en la presentación del manuscrito.

Niveles de empatía y su asociación con características demográficas y académicas en estudiantes de terapia física.

Resumen

Introducción: La empatía se considera como el eje principal para lograr una buena relación entre médico y paciente con el objetivo de obtener atención médica de alta calidad.

Objetivo: Examinar los niveles de empatía y determinar su asociación con características demográficas y académicas en estudiantes de Terapia Física de una universidad privada en Lima, Perú.

Métodos: Se llevó a cabo un estudio cuantitativo descriptivo de corte transversal en Lima, Perú. La muestra fue de 118 participantes. Se utilizó la Escala de Empatía Médica de Jefferson para identificar el nivel de orientación empática en los estudiantes.

Resultados: Se utilizaron datos de 118 participantes. El puntaje total promedio para el cuestionario de la Escala de Empatía Médica de Jefferson fue de 86.9 (DE: 9.61). el 51.7% presentó un nivel de empatía alto. Se encontró que el grupo de mujeres alcanzó una media de 89.1 (DE: 8.54) y los hombres una media de 85.7 (DE: 9.99), lo que sugiere que las mujeres tienen más empatía que los hombres.

Conclusiones: Se evidenció un destacado nivel alto de empatía entre los estudiantes de Terapia Física. La trayectoria académica

no modula esta empatía, indicando una predominante naturaleza innata de la misma.

Palabras clave: Empatía, Estudiante, Terapia Física, Escala de Empatía Médica de Jefferson.

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Levels of Empathy and Their Association with Demographic and Academic Characteristics in Physical Therapy Students.



Abstract

Introduction: *Empathy is considered the central axis for achieving a good relationship between doctor and patient, with the aim of providing high-quality medical care.*

Objective: *To examine empathy levels and determine their association with demographic and academic characteristics in Physical Therapy students from a private university in Lima, Peru.*

Methods: *A descriptive cross-sectional quantitative study was conducted in Lima, Peru. The sample consisted of 118 participants. The Jefferson Scale of Physician Empathy was used to identify the level of empathic orientation in the students.*

Results: *Data from 118 participants were used. The average total score for the Jefferson Scale of Physician Empathy questionnaire was 86.9 (SD: 9.61). 51.7% of participants showed a high level of empathy. It was found that the group of women had an average score of 89.1 (SD: 8.54), while men had an average score of 85.7 (SD: 9.99), suggesting that women have more empathy than men.*

Conclusions: *A notably high level of empathy was observed among the Physical Therapy students. Academic trajectory does not modulate this empathy, indicating a predominantly innate nature of it.*

Key words: *Empathy, Student, Physical Therapy, Jefferson scale of physician empathy.*

Introduction

Empathy, recognized as a fundamental socio-emotional competence, has been the subject of meticulous studies and conceptual evolutions over time. From a psychological perspective, in the 1990s, it was conceptualized as an individual's representation of the internal feelings of another, structured in two essential components: the physiological experience in response to others' emotions and the cognitive processing of those emotions (1). Later, in 2007, a broader conception was proposed, subdivided into four core components: active exchange, self-awareness, mental flexibility accompanied by perspective-taking, and emotional regulation (1).

Within the framework of health sciences, empathy assumes a significant importance, known as "clinical empathy," defined as the ability to understand and communicate another individual's experiences or emotions (2)(3). This form of empathy is vital for the doctor-patient relationship as it facilitates effective communication, establishing a bond of trust, which are essential elements for an adequate diagnosis and optimal therapeutic intervention (4).

In the academic field of university training in Physical Therapy in Peru, while theoretical-practical academic excellence is prioritized, students' competencies in empathy are not explicitly emphasized during clinical practice. This observation is supported by previous research indicating that in various health areas, such as medicine, nursing, psychology, and physical therapy, there is a decrease in empathic capacity as academic cycles progress (5-7). This trend represents a challenge in professional training and ethical commitment towards the patient.

Empathy transcends being a desirable quality, positioning itself as a crucial tool in the clinical setting. Given this context, the present research aims to examine empathy levels and determine their association with demographic and academic characteristics in Physical Therapy students from a private university in Lima, Peru.

Methods

Research Design

The study design has a descriptive, cross-sectional, quantitative analytical approach.

Population, Sample Size, and Sampling



The study population consisted of second, third, fourth, and fifth-year students from the Physical Therapy program at the Universidad Peruana de Ciencias Aplicadas. A sample size calculation was performed using the Epidat 4.0 program for a study estimating mean differences. The following parameters were calculated: mean difference of 5, standard deviation of 9, with a 95% confidence level. Using these parameters, the sample size was estimated at 104 participants.

A census was conducted to select participants. The participants were located in the Physical Therapy program at the Universidad Peruana de Ciencias Aplicadas.

Variables

Medical Empathy: This variable was evaluated using the Jefferson Scale of Physician Empathy.

Demographic Variables: Including gender, age, and years of study.

Instruments

Jefferson Scale of Physician Empathy (validated in Spanish): This instrument is used to measure empathic orientation in medical students and health professionals (8).

Ad hoc questionnaire: Designed for this study to collect data on demographic variables.

Procedures

Before starting data collection, all necessary permissions were obtained from the university. Physical Therapy students were invited to participate in the study. Those who accepted the informed consent were given the ad hoc questionnaire and the Jefferson Scale of Physician Empathy. Confidentiality of their responses was ensured, and they were informed they could withdraw from the study whenever they deemed necessary.

Results

A total of 118 students were surveyed. After the review, 9 surveys were excluded because they corresponded to exchange students and thus met the exclusion criteria.

Regarding the sociodemographic and empathy characteristics of the evaluated students, the average age was 21.8 years, ranging from under 22 to over 26 years. The gender predominance leaned toward females, with 65.3%. Concerning the year of study, the distribution was as follows: second year with 27.1%, third year with 22.9%, fourth year with 32.2%, and fifth year with 17.8% (Table 1).

The Jefferson Scale of Physician Empathy questionnaire yielded an average total score of 86.9, with a standard deviation of 9.61. The breakdown of the scores revealed that 48.3% of the students had a low level of empathy, while 51.7% demonstrated a high level.

Cross-referencing the total empathy score with specific student characteristics showed that women had a mean score of 89.1 with a standard deviation of 8.54, while the male group had a mean score of 85.7 with a standard deviation of 9.99. Although this difference suggests greater empathy in the female group, the statistical significance was not robust enough to establish an association between gender and empathy ($p=0.07$) (Table 2).

The correlation between empathy level, age, and years of study showed no significant associations, with Spearman correlation values of -0.09 and 0.01, respectively (Table 3).



Lastly, when comparing empathy levels according to specific student characteristics, the analysis revealed that empathy is higher in women (53.25%) than in men (39.02%). However, this difference did not reach statistical significance ($p=0.141$). Moreover, although students over 26 years old showed a higher level of empathy (83.33%), this difference was also not statistically significant ($p=0.217$) (Table 4).

Discussion

The primary objective of this research was to examine empathy levels and determine their association with demographic and academic variables in Physical Therapy students from a private institution in Lima, Peru. The results provide relevant data for the academic and professional fields: an average empathy index of 86.9 was identified, with 51.7% of participants showing a high degree of empathy. This majority proportion reinforces the hypothesis that these individuals, either due to previous predispositions or an emphasized initial academic formation, possess strong empathic abilities.

One of the most noteworthy findings that require detailed reflection is the observed consistency in empathy levels among students throughout their academic trajectory. Such empathic stability suggests that while the university provides the technical competencies and theoretical knowledge necessary for professional practice in Physical Therapy, the promotion or adaptation of empathy does not appear to be significantly modulated by the education provided in the institution.

Regarding demographic variables, a greater empathic propensity was observed in women compared to men; however, the limitation in sample size prevents establishing a significant association between gender and empathy.

This finding correlates with the research by Brown et al. (9), where despite a modest sample of 92 participants in Occupational Therapy, it was found that variables such as academic year, age, and gender did not significantly influence empathic levels. This study, like ours, hypothesizes that the limited sample could be masking the true associations.

On the other hand, studies by Bayliss and Strunk (5), Yucel et al. (6), and Mejía (7) found a significant decrease in empathy levels as students advanced in their Physical Therapy education. However, there is discordance in the literature, as studies such as those by Cañamero and Santiago (10), Rojas et al. (11), and Espinoza (12) suggest an increase in empathy in the final years of training.

Shapiro's work (13) highlights that, paradoxically, empathy, while essential in medical and humanistic disciplines, is not always cultivated during academic training. He proposes the integration of literary studies as a means to sharpen this vital skill, as literature can cultivate a deep understanding of human dimensions.

Similarly, Stepien and Baernstein (3) argue that to optimize the quality of patient care, it is essential to foster empathy in future health professionals. They suggest a focus on measuring and cultivating empathy through workshops that emphasize effective communication and empathetic behavioral skills. Meanwhile, in the study by Holmes and Starr (14), a comparison was made between the self-reported empathy levels of physical therapy students and the perceptions of standardized patients during a simulated telehealth encounter, showing no correlation between the high levels of empathy reported by students and the lack of empathy demonstrated in the online simulated scenario.

As we move into the era of active learning, it is pertinent to adopt methodologies that foster socio-emotional skills in health science students. Clinical simulation, for example, allows students to confront and refine their interpersonal skills in controlled scenarios. These strategies are crucial to prepare physiotherapists capable of managing stress situations and providing empathetic care.

The development of specific competencies in health careers enables the student to develop a sense of ethics and professionalism from the beginning to the end of their academic stage, reinforcing the future professional's ability to interact most empathetically with their patients.



It is evident that empathy plays a central role in the medical profession. This study, along with others in the literature, underscores the need to re-evaluate and reinvent pedagogical strategies that emphasize and enrich this quality in future health professionals.

Conclusions

A high percentage of Physical Therapy students with high levels of empathy was identified, highlighting an inherent empathic predisposition in many future professionals.

A finding that contrasts with expectations is that students' empathy levels do not experience substantial modifications as they progress in their academic training. This suggests that while empathy is intrinsic, it is not directly influenced or amplified by the university curriculum.

Despite the encouraging levels of empathy detected, it is crucial for educational institutions to establish mechanisms to further reinforce and cultivate this capacity. The aspiration should be that all graduates possess high empathy levels in their interactions with patients.

We recommend that future studies examine possible associations with variables such as gender, family environment, educational institution of origin, and psychological characteristics. In the clinical setting, possible changes in empathy levels after university graduation should be investigated, given that empathy plays a crucial role in rehabilitation and treatment, promoting trust relationships essential for therapeutic effectiveness.

We suggest evaluating empathy through clinical simulation using realistic scenarios that test both the clinical and interpersonal skills of students.

Tables

Table 1: Sociodemographic Characteristics and Empathy of Students in the Physical Therapy Program at UPC (2019)				
	n=118			
Characteristic	n	%		
Gender				
Male	41	34.7		
Female	71	65.3		
Age (years)				
Mean - SD	21.8	2.76		
<22 years	62	52.5		
22-26 years	50	42.4		
>26 years	6	5.1		



Year of Study				
2nd year	32	27.1		
3rd year	27	22.9		
4th year	38	32.2		
5th year	21	17.8		
Empathy Level				
Mean - SD*	86.9	9.61		
High (≥ 86)	61	51.7		
Low (< 86)	57	48.3		
*SD: Standard Deviation				
*Measured by the Jefferson Scale of Physician Empathy (0-140)				
Table 2: Comparison of Total Empathy Scores by Characteristics of Physical Therapy Students at UPC (2019)				

	n=118	
Characteristic	Mean - SD*	p-value
Gender		
Male	85.7 $\pm$ 9.99	0.07**
Female	89.1 $\pm$ 8.54	
Age Group		
<22 years	86 $\pm$ 12	0.296***
22-26 years	86.5 $\pm$ 13	
>26 years	82 $\pm$ 5	
Year of Study		
2nd year	85.5 $\pm$ 12.5	0.475***
3rd year	84 $\pm$ 15	
4th year	88 $\pm$ 9	
5th year	86 $\pm$ 10	
*SD: Standard Deviation		
*According to the Jefferson Scale of Physician Empathy (0-140)		
**p-value obtained by Student's t-test		
***p-value obtained by the median equality test for k samples		

Table 3: Correlation of Empathy Level with Age and Years of Study for Students in the Physical Therapy Program at UPC (2019)				
	Empathy*			
Characteristic	n	rho**	95% CI	p-value
Age (years)	118	-0.09	-0.266 to 0.09	0.335
Years of Study	118	0.01	-0.173 to 0.190	0.93



*According to the Jefferson Scale of Physician Empathy (0-140)					
**Spearman's correlation coefficient					
Table 4: Comparison of Empathy Levels by Characteristics of Students in the Physical Therapy Program at UPC (2019)					
Characteristic	High Empathy (n=61)	%	Low Empathy (n=57)	%	p-value
Gender					
Male	25	60.98	16	39.02	0.141*
Female	36	46.75	41	53.25	
Age Group					
<22 years	34	54.84	28	45.16	0.217**
22-26 years	26	52	24	48	
>26 years	1	16.67	5	83.33	
Year of Study					
2nd year	16	50	16	50	0.754*
3rd year	12	44.44	15	55.56	
4th year	22	57.89	16	42.11	
5th year	11	52.38	10	47.62	
*p-value obtained by Chi-square test					
**p-value obtained by Fisher's exact test					

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