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Journal of Education Technology in Health Sciences

Journal homepage: https://www.jeths.org/

Original Research Article

Assessment of compassion and empathy in students of health care professions

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ARTICLE INFO

Article history:
Received 07-11-2023
Accepted 07-12-2023
Available online 07-02-2024

Keywords:
Compassion
Empathy
Indifference
Separation
Disengagement

ABSTRACT

Background: Compassion is one of the most important qualities expected and anticipated by patients from their healthcare professionals. Empathy is the ability to recognize and respond to others' emotions. What differentiates compassion from empathy is the creation of a strong desire to reduce suffering.
Objectives: To assess and compare compassion levels in students of MBBS, BSc Nursing and Bachelors in Physiotherapy (BPT) in a medical college.
Methodology: This is a descriptive study done at the NRI Medical College in Guntur district of Andhra Pradesh state in India, The study involved students of 6^{th} Semester MBBS (126), BSc Nursing 4^{th} year (89) and 4^{th} year BPT (48). The study instruments included the Compassion Score questionnaire & Toronto Empathy Questionnaire (TEQ) 3 which are both available freely in the public domain.
Results: Compassion scores in male students had a mean of 58.6 (range 22 to 78 and SD 9.2). Compassion scores in female students have a mean of 59.0 (range 29 to 80 and SD 9.1). Overall compassion scores were highest in MBBS students, both males and females when compared to Nursing and Physiotherapy students. Empathy scores also followed the same statistically significant pattern. Among compassion components, kindness was highest in BPT students while common humanity was higher in the medical students.
MBBS students were seen to have significantly higher scores in all three negative components; indifference, separation and disengagement. It is proposed that the nature of training of nursing and physiotherapy students involves practical hands-on involvement in day to day care of their patients, while medical students are more involved in academic pursuits and less involvement with their patients during undergraduate training.
Conclusion: Efforts must be made to encourage all healthcare students to inculcate empathy and compassion when communicating with patients. Empathy can be enhanced by adding training courses and workshops to the curriculum to teach empathy to develop interpersonal skills. There is a need to use innovative and creative approaches like simulation, role playing, storytelling and reflective discussion.

1. Introduction

Patients are people with feelings of vulnerability, dependency and loss of control leading to threatened self-efficacy and personhood. While health care is specifically designed to provide for the medical needs of patients i.e. diagnosis and treatment, it also indicates a certain sensitivity to the feelings of the person.[1] The National Medical Council (NMC) Foundation Course for students entering the medical profession includes exposure to the concepts of empathy and compassion. Words like compassion, empathy, sympathy, love, altruism, kindness, and pity, are closely related constructs and there is a tendency to use these terms interchangeably.[2] Empathy contributes to our ability to recognize and respond to others' emotions. When there is empathy, the emotional response

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https://doi.org/10.18231/j.jeths.2023.017

to it is compassion and this creates a desire to help. Both empathy and compassion are desirable to better relate and understand others' experiences.

2. Empathy

Empathy involves being sensitive and responsive to another person's feelings and experience while keeping one's own self-integrity intact.[3] In healthcare, empathy is an important indicator of quality of care and better patient-doctor relationships.[4] It has been seen that when patients perceived more physician empathy, they reported satisfaction and better outcomes like faster relief and less severe symptoms.[5]

The three primary components in empathy are an affective response to another person, a cognitive capacity to take the perspective of the other person and regulation of one's own emotions. Empathy involves mirroring and mentalizing which calls for imitation and sharing of other's physical, mental, emotional condition and also their beliefs and intentions.[6]

The two aspects of empathy are cognitive (reflective) and affective (pre-reflective). Cognitive empathy is the ability to understand how a person feels and what they might be thinking and the outcome is better communication and relaying information in a way that best reaches the other person. Affective empathy is the ability to share the feelings of another person and helps one build emotional connections with others. Often confused with sympathy, empathy is experiencing and relating to someone else's feelings. This differs from sympathy, which means understanding someone else's suffering. However, sympathy is a perceptive matter and may not elicit physical action.

3. Compassion

Compassion is a feeling of concern for another person's suffering which is accompanied by the motivation to help.[7] When encountering others in need, the physiological and affective reaction and the behavioural pattern which follows are determined by the concept of compassion.[8] There is need to place compassion at the heart of healthcare for the benefit of patients, staff, and healthcare organisations. Compassionate care is essential successful healthcare efforts. It is suggested that national quality standards include measures of compassionate care which influence patients' care experiences, health outcomes, and perceptions of health-related quality of life.[9]

Compassion consists of the following elements which are; recognising suffering, understanding the universality of human suffering, feeling moved by the suffering person and emotionally connecting with their distress, tolerating uncomfortable feelings aroused (e.g., fear, distress) so that we remain open to the suffering person and being motivated to act to reduce suffering.[8,10] The six-factors for compassion are kindness vs. indifference, common humanity vs. separation, and mindfulness vs. disengagement.[11]

Kindness is an integral part that makes us human and is definitely one of the healthcare professional's duties to a patient and an essential part of practice. Patients may perceive sharing of humanity in terms of time, appropriate humour and self-disclosure as kindness.[12] One of the important components of compassion is kindness which is perceived as friendliness, generosity, being considerate, selfless and caring. Common humanity is an understanding that suffering is universal and a part of life. Mindfulness is awareness of our position and not being overwhelmed by what's going on around us. The negative factors are indifference, separation and disengagement. Indifference is lack of interest or concern. The synonyms for indifference are apathy, callousness, carelessness, disdain, and disinterest. Separation or isolation suggests that emotional response to an experience is a threat to one and therefore moves him/ her to hide their true personality and pretend to have different emotions because they fear rejection and further isolation.[13] Disengagement means emotional detachment, disconnection, separation, withdrawal, break, disentanglement. It is the action or process of withdrawing from involvement.

In healthcare, compassion may involve being an active listener, providing emotional support or even just answering patient questions unwearyingly. Compassion as a duty in any healthcare professional's daily work is the sensitivity shown in understanding another person's suffering, combined with a willingness to help; the outcome being sincere attempts at promoting the well-being of that person and finding a solution to their situation.[14] In medical practice, compassion is one of the most important qualities expected and anticipated by patients from their healthcare professionals. Compassion gives rise to a strong desire to reduce suffering which is the key characteristic that differentiates compassion from empathy.

4. Objectives

1. To assess and compare compassion levels in students of MBBS, BSc Nursing and Bachelors in Physiotherapy (BPT) in a medical college.
2. To assess and compare empathy levels in the above students.

5. Methodology

This is a descriptive study done at the NRI Medical College in Guntur district of Andhra Pradesh state in India, The study involved students of 6^{th} Semester MBBS (126), BSc Nursing 4^{th} year (89) and 4^{th} year BPT (48). Ethical clearance was obtained from the Institutional Ethics Committee and an informed consent was obtained from all the participating students. The study instruments included

Table 1: Compassion & empathy scores according to gender in each course

Course	Compassion				Empathy			
	Mean scores		t statistic	p value	Mean scores		t statistic	p value
	Males	Females			Males	Females		
MBBS	63.1	64.9	1.45	0.07	33.04	32.3	0.76	0.2
BSc. Nursing	51.3	53.3	0.73	0.2	21.8	24.1	1.4	0.08
BPT	54.2	56.8	1.58	0.06	27.9	27.2	0.53	0.3

Table 2: Compassion scores (overall) according to course and gender

Course	Total No.	Mean scores	ANOVA Single factor	Males No.	Mean scores	ANOVA Single factor	Females No.	Mean scores	ANOVA Single factor
MBBS	126	64.3	F value: 66.4, p <.00001	47	63.1	F value: 19.7, p <.00001	79	64.9	F value: 49.04, p <.00001
BSc. Nursing	89	52.9		18	51.3		71	53.3	
BPT	47	55.8		18	54.2		29	56.8	
	262			83			179		

Table 3: Empathy scores according to course and gender

Course	Total No.	Mean scores	ANOVA Single factor	Males No.	Mean scores	ANOVA Single factor	Females No.	Mean scores	ANOVA Single factor
MBBS	126	32.6	F value: 75.6, p value <0.00001	47	33.04	F value: 32.7, p value <0.00001	79	32.3	F value: 44.04, p value <0.00001
BSc. Nursing	89	23.6		18	21.8		71	24.1	
BPT	47	27.5		18	27.9		29	27.2	
	262			83			179		

Table 4: Distribution of compassion components according to gender and course

Compassion factors	Course	Mean scores	ANOVA Single factor	Males Mean scores	ANOVA Single factor	Females Mean scores	ANOVA Single factor
Kindness	MBBS	15	F value: 0.57, p value 0.57	14.4	F value: 0.59, p value 0.56	15.4	F value: 0.19, p value 0.8
	BSc. Nursing	15.3		14.9		15.4	
	BPT	15.6		15.1		15.8	
Common Humanity	MBBS	32.6	F value: 24.1, p value <0.00001	33.04	F value: 8.4, p value <0.0005	32.3	F value: 18.3, p value <0.00001
	BSc. Nursing	23.6		21.8		24.1	
	BPT	27.5		27.9		27.2	
Mindfulness	MBBS	15.4	F value: 2.5, p value 0.08	15.1	F value: 2.07, p value 0.13	15.5	F value: 1.3, p value 0.3
	BSc. Nursing	14.7		15.9		14.9	
	BPT	15.8		14.1		15.7	
Indifference	MBBS	3.5	F value: 94.1, p value <0.00001	3.6	F value: 29.3, p value <0.00001	3.5	F value: 63.2, p value <0.00001
	BSc. Nursing	1.9		1.8		1.8	
	BPT	2		2.2		2	
Separation	MBBS	3.9	F value: 174.5, p value <0.00001	3.9	F value: 56.9, p value <0.00001	3.9	F value: 119.2, p value <0.00001
	BSc. Nursing	1.8		1.9		1.8	
	BPT	1.9		1.5		2.1	
Disengagement	MBBS	8.2	F value: 340.5, p value <0.00001	8	F value: 92.6, p value <0.00001	8.2	F value: 246.2, p value <0.00001
	BSc. Nursing	3.3		3.6		3.3	
	BPT	3.5		3.3		3.6	

the CS questionnaire & Toronto Empathy Questionnaire (TEQ) 3 which are both available freely in the public domain.

The TEQ is a psychometrically sound, easily administered and brief self-report measure of empathy which contains 16 questions that encompass a wide range of attributes associated with the theoretical facets of empathy.[15] The Compassion Scale (E. Pommier) is a 16 item questionnaire which measures kindness, common humanity, mindfulness, indifference, separation and disengagement.[16]

The collected data was entered in Microsoft Excel 2010 and presented in tables and graphs. Important findings were subjected to tests of significance like Chi square, t tests and ANOVA single factor test at 5% Level of Significance.

6. Results

Compassion scores in male students (total 83) from all courses have a mean of 58.6 (range 22 to 78 and SD 9.2). Compassion scores in female students (total 179) from all courses have a mean of 59.0 (range 29 to 80 and SD 9.1). The mean scores obtained by students of each course are given in Table 1. Gender based score for each health professional course is given in Table 2. Empathy scores according to course and gender are shown in Table 3. The distribution of the various components of compassion according to gender and course is given in Table 4.

Both compassion and empathy scores were compared to variables such as father's educational level & occupation, mother's educational level & occupation, student's academic performance (self-assessment of previous examination performance) and presence of a medical professional within the immediate family. None of these factors showed any significant relationship to empathy or compassion levels in MBBS, BSc Nursing and BPT students.

7. Discussion

Proper evaluation and education of empathy and compassion in all health care profession students is important. In the current study it is seen that overall compassion scores were highest in MBBS students, both males and females when compared to Nursing and Physiotherapy students. Nursing students had the least mean scores. This finding is statistically significant. Empathy scores also followed the same statistically significant pattern. Among compassion components, kindness was highest in BPT students while common humanity was higher in the medical students. MBBS students however were seen to have significantly higher scores in all three negative components; indifference, separation and disengagement. It is proposed that the nature of training of nursing and physiotherapy students involves practical hands-on involvement in day to day care of their patients, while medical students are more involved in academic pursuits and less involvement with their patients during undergraduate training.

A study from Shiraz University, Iran suggests that empathy levels in medical students were low; a cause for concern.[17] Duarte et al. showed higher empathy scores in female medical students.[18] Typically, men are considered to be less emotional and more cerebral in their thinking and therefore less empathetic. Studies looking at the neurobiological foundations and networks of empathy also disclose gender differences in both affective and cognitive forms of empathy and also subsequent decision-making processes.[19]

To deliver high-quality care, a nurse must be able to connect with patients, control his / her own emotions, and empathize with patients. Ghazwani S et al found that the mean level of total self-reported empathy among nursing interns showed moderate levels of empathy overall.[20] Castellano PS et al. in their study with nursing students in Mangalore, Karnataka found that a majority (65%) of the students had below average level of empathy.[21]

Yucel H et al in their study on empathy in physiotherapy students in Istanbul found that the scores increased slightly after school entrance and the following years of study. However, they noted that there was a significant decrease in the clinical years. They suggest the need for curricula that would enhance the practice of empathy in the students.[22] Some of the factors that negatively influence the development of empathy in healthcare professionals maybe the high number of patients that they have to manage, the lack of adequate time and the focus on therapy. The lack of education in empathy may also be an important factor. Not only should the development of empathetic skills be an objective in the teaching of undergraduate healthcare students, but also a lifelong and continuous process.[23]

8. Conclusion

Both empathy and compassion seem to be low in our students. Medical students are found to be more indifferent, separated and disengaged. Efforts must be made to encourage all healthcare profession students to inculcate empathy and compassion when communicating with patients. Empathy can be enhanced by organizing workshops to develop interpersonal skills, adding training courses to the nursing, medical and physiotherapy curricula which teach empathy, and by using innovative and creative approaches like simulation, role-playing, storytelling, reflective discussion, and listening directly from healthcare consumers.

9. Source of Funding

None.

10. Conflict of Interest

None.

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Cite this article: Bhanu Sundeep G, Rao NSS. Assessment of compassion and empathy in students of health care professions. *J Educ Technol Health Sci* 2023;10(3):77-81.