Research Article

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Healthcare Services and Empathy: A Portrait of the Pharmacy Students on Determining the Empathy Levels

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ABSTRACT

Empathy is defined as a fundamental tool to improve the healthcare professional-patient bond and understanding of both patient and other professionals which enhances the healthcare professional's experience. The empathetic attitude of the pharmacist could be a key element in effective interaction and this skill can be improved with various methods. In this study, it is aimed to reveal whether pharmacy education has an effect on the level of empathy by comparing the opinions of the students and their empathy levels. The validated Turkish version of the Empathy Quotient (EQ) questionnaire was used to reveal the participants' empathy level. 311 students participated in the survey from 699 students and 306 of them were included in the analysis. According to the scale scores' mean of students, a statistically significant difference was found only in terms of gender. Additionally, whether they had an internship or not did not make a significant difference on empathy levels. Pharmacy students' technical skills in providing therapeutic recommendations may be negatively affected by their inability to communicate or engage with patients due to their lack of empathy. To prevent this, empathy as a teachable ability could be involved in the pharmacy education curriculum with various practices and techniques.

Keywords: Empathy, Pharmacy education, Pharmacy students, Soft skills

1. Introduction

Communication skills are crucial for healthcare professionals to understand the patient's feelings, situation, needs and opinions. Since healthcare services shifted to patient-centered services, empathy as a communication skill gained more importance than ever [1]. Moreover, empathy is defined as a fundamental tool to improve the healthcare professional-patient bond and understanding of both patient and other professionals which enhances the healthcare professional's experience [2]. Empathy is conceptualized in different aspects as a human trait, professional state, communication process, caring and relationship. Within these, in a professional state, empathy can be learned with its cognitive and behavioral aspects [3].

Empathy is defined by two concepts which are cognitive empathy and emotional empathy [4]. Giving effective care and conducting healthcare services is essential but the role of effective communication is another side of medical care. Understanding a patient's fears, obstacles, and feelings could increase satisfaction with healthcare services and enhance patient compliance with the treatment scheme [5]. In this regard, empathy will facilitate to build up trust between parts. This trust will result in a more accurate medical story and a more definite diagnosis concordantly. On the other hand, an empathetic relationship will alter patients' views on healthcare professionals as it is also helpful for the members of the social security system [6].

Despite its complexity, literature shows that empathy can be learned [7, 8]. Barker et al., emphasized that empathy levels in nursing students could be improved with various interventions such as role play, simulation etc. [9]. Williams et al., showed the effect of an intervention with a group of students in South Australia. After a series of simulation-based workshops, the self-reported empathy scores significantly increased even with a single workshop [10]. Correspondingly, Winkle et al., measured the empathy levels of medical and pharmacy students and found that empathy levels increased after a workshop and they highlighted the scores can decline the initial levels overtime [11]. Another study showed that the simulation practices could also enhance empathy levels.

Patient-centered approach not only affects clinicians but also other healthcare professionals, such as pharmacists [12]. As the most accessible health professionals, pharmacist often welcome their patients in pharmacies while they are in unfavorable conditions. Since patients mostly visit pharmacies in order to find a solution for their health situation, the empathetic attitude of the pharmacist could be a key element in effective interaction [13].

Thus, in this study, the empathy levels of pharmacy students through their education year and the effect of gender on their empathetic attitude will be revealed. Also, we aimed to examine whether pharmacy education has an effect on the level of empathy by comparing the opinions of the students and their empathy levels.

2. Materials and Methods

A cross-sectional questionnaire-based survey study was conducted on a population of volunteer pharmacy students ranging from first to fifth-year students in Hacettepe University Faculty of Pharmacy face-to-face.

The survey consisted of two parts. Demographic information and questions about the opinions of students about empathy were in the first part. Besides the pre-questions in the questionnaire, there were questions about demographic information and participants' thoughts on empathy.

The validated Turkish version of the Empathy Quotient (EQ) questionnaire was used in the second part of the questionnaire [14]. EQ as one of the most used empathy scales was developed by Baron-Cohen and Wheelwright to measure the empathy levels in normal intelligence adults considering individual differences [4, 15].

The questionnaire consisted of 60 questions. 40 questions were devoted to measuring empathy and 20 were filler items to distract participants from focusing on empathy and these were not included in the scoring process. The questionnaire has 4 options for each question: strongly agree, slightly agree, slightly disagree, and strongly disagree. The 40 questions were scored, and the most empathetic answer scored 2, the less empathetic answer scored 1 and the 2 unempathetic answers scored 0 points. The total point of each questionnaire is between 0 – and 80 points as per the scoring system [4, 14].

The study was approved by the Ethics Commission at Hacettepe University (11.01.2018-25402056-300).

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Participants were informed and consent was obtained before conducting the survey.

Data were exported to the IBM SPSS ver.19 (IBM Corporation). Descriptive statistics were conducted to determine the characteristics and opinions of participants. Also, t-test and ANOVA tests were performed to compare the groups at a significance level of 0.05 after the normality tests.

3. Results and Discussion

311 students participated in the survey from 699 students. And 306 of them were included in the analysis. Cronbach's alpha was 0.806 for the EQ on our sample. Descriptive statistics of normally distributed data and the significance levels between variables according to EQ scale score mean are presented in Table 1.

According to the scale scores' mean of students, a statistically significant difference was found only in terms of gender ($p<0.05$). Women students' EQ scores (47.97±10.04) are higher than men's (42.31±11.46). On the other hand, there is no significant statistical difference between the empathy scores of the grades. Additionally, whether they did an internship (47.37±11.44) or not did not make (46.81±9.85) a significant difference in empathy levels ($p>0.05$). Based on this, it is considered that internships can be reviewed and organized by assessing their effectiveness in education. It is noteworthy that the scores of the students who stated that empathy skills cannot be improved (46.91±10.45) were higher than those who thought (50.00±11.43), although not at a statistically significant level ($p>0.05$).

The concept of empathy, which is closely related to perceiving the situation of others, is also an indicator of sensitivity to this situation [16]. Thus, healthcare professionals need to have wide inter and intrapersonal skills to deliver clinically sound and emotionally engaging healthcare services [17]. Pharmacists as being the most accessible healthcare professionals, empathetic skills are important among them to create a rapport with patients and improve patient outcomes with the information flow [13, 18]. The development of pharmacists' empathy skills is also an important factor for their psychological well-being and work performance. [19, 20]. Hence, empathy as a teachable skill poses a critical competency in pharmacy education [21, 22]. EQ is a frequently used measurement tool in the field of health to evaluate this skill. This tool was valid and reliable for our sample as well.

One of the most important variables that affects the level of empathy is gender. Studies show that women's empathy levels are higher compared to men's [18, 23]. In our study, a difference was found between empathy levels in terms of gender and women students had higher scores than men.

Yet, studies found a significant difference in empathy levels in particular grades in pharmacy and medical students [18, 24-26]. On the contrary, we found that the levels of empathy were not statistically different between grades. However, it is stated that empathy levels may decrease during the education period, but this level may increase with age as well [27]. Similarly, in our study, it was observed that students' empathy levels decreased until the 3rd grade and increased thereafter.

Pharmacy students' technical skills in providing therapeutic recommendations may be negatively affected by their inability to communicate or engage with patients due to their lack of empathy [28]. Similar to other health-related disciplines, evidence-based learning techniques should be encouraged in pharmacy education to improve students' empathy levels [29]. Besides, involving humanities in the pharmacy education is considered as an approach to improve empathetic education [30]. Thus, modifications on the pharmacy education curricula and establishing education programs could enhance the empathy among pharmacy students [31, 32].

One of the limitations of this study is that it was conducted in a single faculty and only examined differences in empathy levels according to the students' opinions. Also, for a future study planning a training program and examining its effectiveness will make positive impacts on curriculum development efforts.

4. Conclusion

Here in this study, we evaluated the empathy levels of pharmacy students with the EQ as a validated tool. The study was approved by the Ethics Commission at Hacettepe University (11.01.2018-25402056-300). On the contrary of the existing literature, we found no significant difference considering empathy levels in between grades. Empathy is a key competency for pharmacists as healthcare professionals. Empathetic

Table 1. The distribution of students' opinions

Variable		n	%	EQ Score Mean ($\bar{x}$)	± Std. Deviation (SD)	p
Gender						
Women		255	83.33	47.97	10.04	< 0.05
Men		51	16.67	42.31	11.46	
Grade						
1st		55	17.97	48.94	8.76	0.403
2nd		62	20.26	45.97	10.24	
3rd		69	22.55	45.87	10.18	
4th		66	21.57	46.70	12.30	
5th		54	17.65	48.18	10.33	
Internship						
Done		120	39.22	47.37	11.44	0.652
Not done		186	6.78	46.81	9.85	
Questions						
Do you think that empathy is important in healthcare services?	Yes	303	99.02	47.02	10.51	0.916
	No	3	0.98	47.67	9.02	
Do you think that pharmacists' empathy skills can be improved?	Yes	294	96.08	46.91	10.45	0.318
	No	12	3.92	50.00	11.43	
Do you think that the communication and empathy training you received in your undergraduate education is sufficient?	Yes	121	39.54	47.24	10.22	0.777
	No	185	60.46	46.89	10.68	
Do you think it would be beneficial to include a lecture on empathy in the undergraduate education program?	Yes	267	87.26	46.74	10.49	0.216
	No	39	12.74	48.97	10.39	

communication skill enhances the patient's outcomes and ensures the information exchange. Empathy as a teachable and learnable ability could be involved in the pharmacy education curriculum with various practices and techniques. Besides, including humanities also improve the empathy levels of the students.

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Conflicts of Interest Statement

No conflicts of interest.

Statement of Contribution of Researchers

BSS, UY (Concept and Design); UY (Data collection); BSS, LY (Data analysis); BSS, LY, UY, SY (Writing and Critical Reviews).

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