

Original Article

# Awareness of Medical Ethics among Undergraduates of Physical Therapy

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## ABSTRACT

**Background:** Ethical awareness is fundamental to the practice of healthcare professionals, including physical therapists. With the evolving landscape of healthcare, an understanding of medical ethics becomes crucial for ensuring quality patient care and adherence to professional conduct.

**Objective:** This study aimed to evaluate the awareness and attitudes towards medical ethics among undergraduate students in Doctor of Physical Therapy programs in Lahore, assessing both gender differences and the impact of educational exposure on ethical understanding.

**Methods:** A cross-sectional survey was conducted among 200 undergraduate physical therapy students from both private and government universities over a six-month period following research synopsis approval. The sample size was calculated based on confidence level, predicted proportion, and desired accuracy. Data were collected through structured questionnaires and analyzed using SPSS version 25.0. Both qualitative and quantitative methods were used to analyze data, focusing on frequencies, percentages, means, and standard deviations.

**Results:** The study revealed that 34.5% of participants considered ethical issues to be very important, and 19.5% regarded them as extremely important. Lecture classes were the primary source of ethical knowledge for 47.0% of the students, while 23.5% relied on ethical books, and smaller percentages used seminars, workshops, and clinical training. There was a slight, non-significant difference in ethical awareness scores between male (52.5%) and female (47.5%) students. The duration of study was positively correlated with an increase in ethical awareness levels.

**Conclusion:** The findings suggest that while there is a high regard for the importance of medical ethics among physical therapy students, there are variations in the sources of their ethical knowledge and the depth of their understanding. Enhancing ethics education through diversified methods and increased practical applications may further improve ethical awareness and application in clinical settings.

**Keywords:** Medical ethics, physical therapy education, ethical awareness, healthcare ethics, cross-sectional study, SPSS analysis.

## INTRODUCTION

Ethics, which is defined as the moral principles that govern an individual's actions or the manner in which these actions are performed, plays a crucial role in the field of medicine, focusing on the moral standards applied within clinical medicine and scientific research. The importance of medical ethics is increasingly recognized, forming an integral part of the undergraduate curriculum for medical students (1, 2). This foundation is essential for ensuring that healthcare professionals understand and adhere to ethical

guidelines that dictate permissible actions, particularly in complex situations where conflicts between ethical principles may arise during the treatment and care processes (3, 4).

The public's awareness of the ethical conduct expected of medical practitioners is on the rise, paralleled by an increase in allegations against doctors. It is imperative that healthcare professionals integrate ethical standards into their practice upon completing their studies, adhering to principles such as justice, beneficence, non-maleficence, responsibility, fidelity, autonomy, and veracity. These standards are critical not only for patient care but also for maintaining the integrity of the medical profession, which has faced challenges due to the commercialization of medical practice worldwide (5, 6, 7, 8).

There are three primary approaches to ethics: virtue ethics, consequentialist ethics, and deontological ethics, each offering distinct perspectives on moral decision-making (10, 11). An understanding of these frameworks is vital for medical students, as it shapes the comprehensive professionalism curricula and monitors shifts in professionalism knowledge over time (9). This study aims to evaluate the awareness and attitudes of final-year medical students towards medical ethics, including their knowledge of institutional ethics committees and the fundamental role of ethics in their professional decision-making (12, 13).

In the context of physical therapy, ethical challenges are becoming more prevalent with the expanding scope of practice. These challenges often relate to decisions about access to care, resource limitations, treatment quality, and the use of various procedures. It is critical for therapists to receive adequate training to effectively navigate these ethical dilemmas. By assessing medical students' knowledge gaps and training needs, this research seeks to enhance ethical awareness and practice among healthcare professionals, particularly in the increasingly complex field of physiotherapy (14, 15).

## MATERIAL AND METHODS

This cross-sectional survey was conducted over a period of six months following the acceptance of the research synopsis, aimed at assessing the awareness of medical ethics among students enrolled in Doctor of Physical Therapy programs at both private and government universities in Lahore. A total of 234 participants were included in the study, with the sample size calculated based on a predetermined confidence level, predicted true proportion, and desired accuracy. The recruitment strategy involved convenience sampling, targeting only undergraduate students in the physical therapy programs, thereby excluding postgraduates and students from other departments to ensure a homogenous participant pool.

The data collection process entailed the distribution and collection of structured questionnaires to the selected participants. These questionnaires were designed to gather both qualitative and quantitative data pertinent to the study objectives. The qualitative data were analyzed for frequency and percentages to explore the distribution of categorical variables among the participants. In contrast, quantitative continuous variables were assessed for mean and standard deviation, providing insights into central tendencies and variability within the data.

All analyses were performed using SPSS version 25.0, ensuring rigorous data processing and reliable results. Ethical considerations were stringently observed throughout the study, with all procedures performed in accordance with the ethical standards of the Helsinki Declaration. Prior to participation, informed consent was obtained from all participants, ensuring they were fully aware of the study's nature and their voluntary involvement. This approach not only safeguarded participant rights but also enhanced the credibility of the research findings.

## RESULTS

In this cross-sectional study conducted among 200 undergraduate students in Doctor of Physical Therapy programs, there was a balanced gender representation with 52.5% male and 47.5% female participants. The assessment of the importance of ethical issues revealed a gradient of responses (Figure 1): 19.0% of the students perceived ethical issues as somewhat important, 27.0% regarded them as important, 34.5% viewed them as very important, and 19.5% considered them extremely important.

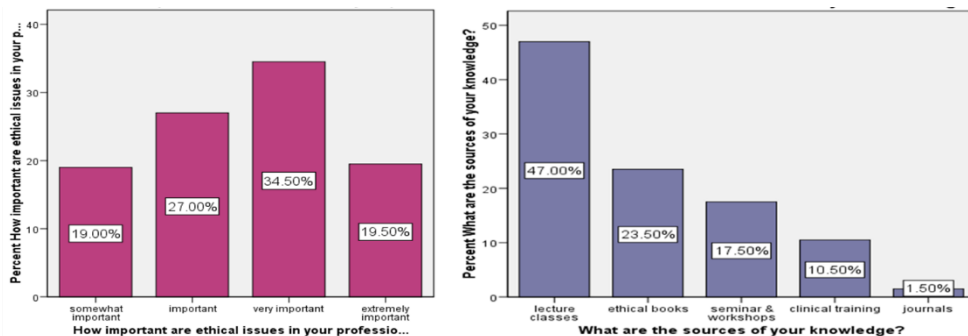


Figure 1.2 Importance of ethics and source of information.

When queried about their primary sources of knowledge about ethics, a plurality of 47.0% identified lecture classes as their main source. This was followed by 23.5% who cited ethical books, 17.5% who pointed to seminars and workshops, 10.5% who mentioned clinical training, and a minimal 1.5% who referred to journals as a resource (Figure 2).

The survey responses regarding institutional committees, patient rights, and physician conduct provided further insights (Table 1). A majority of the students were aware of an ethical committee in their institution, with 81 respondents (40.5%) affirming its existence, 60 (30%) denying, and 59 (29.5%) unsure. In scenarios involving physician practices and patient rights, the results were varied: only 24.5% believed that physicians could operate a shop for dispensing drugs prescribed by others, whereas 50% disagreed and 25.5% were undecided. A strong consensus was evident on the issue of treating children without parental consent, where all respondents (100%) agreed that parental consent was necessary.

Table No 1 Survey Responses on Institutional Committees, Patient Rights, and Physician Conduct

Statements	Yes N (age)	No N (age)	Don't Know N (age)
Is there an ethical committee in your institution	81 (40.5%)	60 (30%)	59 (29.5%)
Physician can run shop for dispensing drugs and appliances prescribed by other	49 (24.5%)	100(50%)	51(25.5%)
Privacy of one patient may be ignored for the benefit of the larger group.	29(14.5%)	116(58%)	55(27.5%)
Children shouldn't be treated without parent's consent	200 (100)	-	-
A patient who wishes to die should be assisted in doing so, no matter what his/her illness	42 (21%)	105(52.5%)	53(26.5%)
It is Essential to discuss ethical, social and legal issues of that patient during clinical rounds	130 (65%)	42 (21%)	28(14%)
Ethics as a part of syllabus should be taught in every medical institute.	111 (55.5%)	41 (20.5%)	48 (24%)
Doctors are influenced by drug company inducement including gifts?	40 (20%)	91 (45.5%)	69 (34.5%)

Table No 2. Ethical Perspective among students

Statements	Strongly disagree	disagree	Not sure	Agree	Strongly Agree
Clinically confirmed cases should also undergo laboratory investigations as a routine.	7(3.5%)	30(15%)	46(23%)	82(41%)	35(17.5%)
Close relatives must always be told about the patient's condition	18(9%)	21(10.5%)	25(12.5%)	86(43%)	50(25%)
Doctors know the best irrespective of patients' opinion.	14(7%)	27(13.5%)	37(18.5%)	90(45%)	32(16%)
Patient should always be told if something goes wrong.	10(5%)	21(10.5%)	21(10.5%)	96(48%)	52(26%)
During treatment patient's wishes should be always adhered to	-	54(27%)	35(17.5%)	76(38%)	35(17.5%)
Doctors and nurses should refuse to treat patients who behave violently.	32(16%)	63(31.5%)	36(18%)	46(23%)	23(11.5%)

Statements	Strongly disagree	disagree	Not sure	Agree	Strongly Agree
Ethical conduct is important only to avoid legal action.	-	31(15.5%)	68(34%)	68(34%)	33(16.5%)

Concerning ethical dilemmas like patient privacy versus the benefit of a larger group, 14.5% were in favor, while a significant majority (58%) opposed, and 27.5% were unsure. The question of assisting a patient who wishes to die, regardless of their illness, saw 21% in agreement, 52.5% against, and 26.5% undecided. The necessity of discussing ethical, social, and legal issues during clinical rounds was supported by 65%, while 21% disagreed, and 14% were uncertain. A notable 55.5% of students advocated for the inclusion of ethics in the medical curriculum, 20.5% opposed it, and 24% remained neutral.

The influence of pharmaceutical company inducements on doctors was acknowledged by 20% of the respondents, with 45.5% disagreeing and 34.5% uncertain about such influences.

The ethical perspectives among students were further explored in their responses to various scenarios (Table 2). On routine laboratory investigations for clinically confirmed cases, 41% agreed while 17.5% strongly agreed, indicating a general consensus for additional diagnostic measures. The necessity of informing close relatives about a patient’s condition saw 43% agreement and 25% strong agreement. In terms of valuing doctors’ opinions over patients’, 45% agreed and 16% strongly agreed that doctors generally know best. The principle of full disclosure to patients when something goes wrong garnered substantial support, with 48% agreeing and 26% strongly agreeing. The treatment adherence to patient wishes was considered important by 38% of the students, with 17.5% strongly agreeing. However, the stance on treating violent patients was more divided, with 23% agreeing and 11.5% strongly agreeing that doctors and nurses should refuse treatment in such cases. Lastly, 34% of respondents each agreed and disagreed on the idea that ethical conduct is significant only to avoid legal action, while 16.5% strongly agreed.

## DISCUSSION

This study aimed to assess the level of medical ethics awareness among undergraduate physical therapy students, revealing a notable differentiation in ethical awareness by the duration of their study experience. A positive correlation was observed between increased years in the academic program and heightened ethical awareness, indicating that continued exposure to the curriculum potentially enhances understanding of ethics. Interestingly, although male participants slightly outscored their female counterparts in terms of ethical awareness, this difference was not statistically significant, suggesting that gender does not play a crucial role in the ethical awareness levels among these students.

Comparison with previous research highlights some consistency and variances in the sources of ethics knowledge and overall awareness. For instance, a 2012 study at a medical college in West Bengal found that only 50.9% of undergraduates scored well on an ethical scale, indicating mixed attitudes towards ethical issues (16). This contrasts with the current study's findings, where a larger proportion of students demonstrated a higher recognition of the importance of ethical issues. The primary source of ethical knowledge reported in our study was lecture classes (47.0%), which is consistent with findings from earlier studies by Shamim in 2005 and Patenaude et al. in 2003, where formal education played a significant role in ethics education (18, 19). However, the reliance on ethical books and journals was notably lower in our study, suggesting a potential gap in utilizing these traditional resources effectively.

The discrepancy in the use of journals and books compared to digital and media sources found in a 2020 study underscores a shift towards more contemporary means of obtaining information among students (20). This trend may reflect the broader digital transformation in education but also raises questions about the depth and rigor of knowledge acquired through less formal channels. Further, while this study found a comprehensive awareness of the basic principles of medical ethics, earlier research in 2015 across Pakistan highlighted a significant lack of knowledge, where 57% of medical professionals were unaware of these principles (21). This suggests improvements over time but also emphasizes the need for continued focus on ethics education.

Despite these encouraging findings, there are limitations to this study. The use of convenience sampling may limit the generalizability of the results, as it might not represent all undergraduate physical therapy students in Lahore. Additionally, the study’s reliance on self-reported data can introduce bias, as students might provide responses they perceive as desirable rather than their true beliefs. To enhance ethical awareness further, it is recommended that ethics committees within educational institutions play a more proactive role by publishing and disseminating their activities and decisions. Such transparency could provide practical examples of ethical issues and resolutions, enriching students' understanding and application of ethical principles. Moreover, integrating ethics more robustly into the curriculum through interactive modalities such as workshops, debates, and case-based discussions could address the gaps identified in utilizing traditional learning resources.

## CONCLUSION

In conclusion, while the current study indicates a positive trend in the ethical awareness among physical therapy undergraduates, ongoing efforts are needed to adapt educational strategies that ensure deep and practical understanding of ethics in medical settings. These findings provide a foundation for future research and curriculum development to build robust ethical reasoning and decision-making skills in emerging healthcare professionals.

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