

Shaping Future Practitioners: Navigating Ethics in the Medical Field

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ABSTRACT

Background: Medical ethics is a set of moral principles and guidelines that dictate the behavior and actions of a medical professional, ultimately having an impact on the decisions they make. It is widely believed that teaching medical ethics ensures students become physicians with good moral compasses who keep their patient's best interests in mind. We aim to assess the degree of knowledge, attitude, and perception of medical students towards medical ethics.

Methods: This cross-sectional study was carried out amongst the undergraduate students of Jinnah Sindh Medical University (JSMU) in Karachi, Pakistan who are currently pursuing a degree in Bachelor of Medicine and Bachelor of Surgery (MBBS). 202 students from years 1 to 5 voluntarily participated in this study. A non-probability convenience sampling technique was employed to recruit the participants and this study was carried out from March 2023 to July 2023. The participants were administered a pre-tested, semi-structured questionnaire related to various aspects of medical ethics. The responses of the participants were recorded on a 5-point Likert scale. The Statistical Package for the Social Sciences (IBM SPSS, Chicago, USA) was used to analyze the data. The Chi-square test was used as a test for significance with significant differences considered at a p-value of 0.05 or less.

Results: A total of 202 medical students participated in our study, out of which 128 (63.4%) were female and 74 (36.6%) were male. Their ages ranged from 18 to 25 years old with a mean age of 21.42 ± 1.57 . 13.9% of the participants were from the first year, 18.8% were from the second year, 11.9% were from the third year, 42.6% were from the fourth year and 12.9% were from the fifth year of MBBS. Regarding consent in different medical scenarios, participants demonstrated a solid understanding of the importance of informed consent for routine procedures, investigations, and treatments. However, variations were seen in responses concerning consent during emergencies. Most agree that patients have the right to refuse treatment and life-sustaining interventions. Around

49.5% of students were unsure or believed that Euthanasia was legal in Pakistan, indicating a need for improved education on these matters and related ethical guidelines.

Conclusion: Medical ethics plays a crucial role in maintaining the integrity of healthcare systems and ensuring patient-centered care. The findings of this study emphasize the importance of a comprehensive medical ethics curriculum and structured clinical experiences in cultivating ethical decision-making skills among medical students.

Keywords: Medical Ethics, Medical Students, Ethics Education, Ethics Awareness

INTRODUCTION

Medical ethics is a set of moral principles and guidelines that dictate the behavior and actions of a medical professional, ultimately having an impact on the decisions they make ^[1]. The four pillars of medical ethics-beneficence, autonomy, non-maleficence, and justice exist to protect the health of patients and make sure they are treated with respect and dignity ^[2]. Despite the advancement of medicine and the existence of a clear code of ethics, it is still common for there to be reports of unethical behavior by medical students and physicians with patients and colleagues ^[3-5].

It is widely believed that teaching medical ethics ensures students become physicians with good moral compasses who keep their patient's best interests in mind ^[6,7]. Advocating for the importance of teaching medical ethics in Pakistan, The Pakistan Medical and Dental Council (PMDC) introduced a code of ethics in 2002 ^[8] yet several studies conducted in Pakistan continue to prove that medical students and doctors possess a deficit in knowledge and exposure when it comes to ethics. According to a study conducted by Majeed et al at CMH Lahore, 57% of the students reported that the PMDC code of ethics was not covered in institution's curriculum ^[9]. Another study by Aleem et al, focusing on house officers at Jinnah Postgraduate Medical Center, indicated that 59% of the house officers had not familiarized themselves with the PMDC code of ethics ^[10]. This lack of fundamental knowledge contributes to unethical behavior and patient dissatisfaction ^[11]. These studies have become more relevant in the current climate due to an increase in public awareness of inappropriate practices by medical professionals and complaints of ethical misconduct that have been observed in recent years throughout the country ^[12].

A stronger grasp of medical ethics will ensure that aspiring physicians practice medicine in a way that leads to better rapport, trust, improved cooperation, and a much greater likelihood of medication compliance and follow-ups promoting the provision of unhindered, well-ordered health care. In order to formulate a curriculum tailored to a particular societal background the first step is to assess the basic knowledge and attitudes of medical students and physicians concerning ethics ^[12]. Therefore, by carrying out this study we assessed specific sections of the students' ethical knowledge relevant to classroom education and clinical rotations to try and identify any insufficiency in their understanding of medical ethics which may pave the road to further research to rectifying any such insufficiency leading to improved health care through our doctors to come.

METHODS

This cross-sectional study was carried out amongst the undergraduate students of Jinnah Sindh Medical University (JSMU) in Karachi, Pakistan who are currently pursuing a degree in Bachelor of Medicine and Bachelor of Surgery (MBBS). A non-probability convenience sampling technique was employed to recruit the participants and this study was carried out from March 2023 to July 2023.

202 students from years 1 to 5 of MBBS from JSMU who voluntarily participated in this study were included. The sample size was validated from a study conducted on this same topic by Nepal.S, et.al ^[1].

Students currently enrolled in years 1 to 5 of MBBS at JSMU, who are above the age of 18 and can answer a simple questionnaire in English were included in this study, whereas, MBBS students who have recently graduated and individuals who do not study in JSMU were excluded.

The students were administered a pre-tested, semi-structured questionnaire related to various aspects of medical ethics which is a modified version of a questionnaire employed in a previous study on the same topic ^[1]. The questionnaire was not only circulated using social networking sites such as WhatsApp, Twitter, etc. to MBBS students of JSMU but students were also approached by the primary investigators of this study in person and were guided to fill out the questionnaire after obtaining written, informed consent from them. All ethical considerations were observed.

The questionnaire took 5 to 7 minutes to be filled. The aims and objectives of the study were explained to the students and informed, written consent was obtained from those who volunteered to participate in the study. The questionnaire consisted of the socio-demographic profiles of the participants, their source, and degree of knowledge and information regarding medical ethics. The questionnaire included a total of 25 questions, out of which 11 questions were related to the perception and awareness of the students towards issues related to consent in medical practice, whereas the rest of the questions were concerned with other issues related to practices of medical ethics.

The responses of the participants were recorded on a 5-point Likert scale. The responses were graded using a differential grading system; 1-strongly agree, 2-agree, 3-don't know, 4-disagree, and 5-strongly disagree. Scores 1 and 2 were put together to represent agreement, 4 and 5 together for disagreement and score 3 indicated that the participant was not sure about the response in the statement.

The Statistical Package for the Social Sciences (IBM SPSS, Chicago, USA) was used to analyze the data. All continuous variables were presented as mean and standard deviation, while for all categorical variables, frequency and percentages were evaluated. The Chi-square test was used as a test for significance with significant differences considered at a p-value of 0.05 or less.

RESULTS

A total of 202 medical students participated in our study, out of which 128 (63.4%) were female and 74 (36.6%) were male. Their ages ranged from 18 to 25 years old with a mean age of 21.42 ± 1.57 . 13.9% of the participants were from the first year, 18.8% were from the second year, 11.9% were from the third year, 42.6% were from the fourth year and 12.9% were from the fifth year of MBBS.

The majority of them knew about Medical Ethics from Forensic Lectures in class (42.6%) followed by social media sites such as YouTube, Facebook, Reddit, etc (33.7%). Other sources the participants listed included scientific journals, conferences/workshops, magazines/newspapers, etc. (Figure 1)

The majority of the students agreed that consent should be taken for routine procedures such as major/minor operations, routine investigations, treatment with adverse reactions, general physical examination, and male/female genital examination.

When asked about consent during emergencies, the majority agreed that children can be treated without their guardian/parents' consent, adults can be treated without their consent and the patient's wishes must be adhered to, however, the majority disagreed that the doctor can refuse treatment if the patient is unable to bear their fees and if the patient or their relatives are violent.

When asked the same questions in a non-emergency setting, the majority of the participants disagreed that children can be treated without their guardian/parents' consent, adults can be treated without their consent and doctors can refuse treatment if the patient can't bear their fees.

Moreover, the majority agreed that the patient's wishes must be adhered to and that the doctor can refuse to treat a patient who is violent or has violent relatives.

81% of the participants agreed that confidentiality is an important issue in medical practice and 77% agreed that the patient should be informed of a wrong doing by the doctor.

When the participants were asked if a patient refused treatment due to his/her beliefs the majority agreed that the doctor should instruct the patient to find another doctor (62%) as opposed to continuing with the treatment (28%).

The majority of the participants agreed that the patient has the right to refuse treatment and life-supporting treatment. Whereas, the majority of the participants disagreed that if a terminally ill patient wished to die he/she should be assisted to do so.

53% of the participants believe that Euthanasia is not legalized in Pakistan. (Table 1)

Chi-Square test results showed no significant correlation between the participants' beliefs on taking routine consent from patients and the participants' year of study ($p > 0.05$).

Regarding consent in an emergency, a significant correlation was found between the participant's year of study and their beliefs that "children can be treated without their guardian/parent's consent" ($p = 0.03$) as well as "patients wishes must be adhered to" ($p = 0.007$)

Regarding Consent in a non-emergency setting, a significant correlation was found between the participants' year of study and their beliefs on "children can be treated without their guardian/parent's consent" ($p = 0.008$), the rest of the questions in this category were analyzed and were found to have no significant correlation ($p > 0.05$). (Table 2)

The Chi-Square test results indicated that there was no significant correlation between participants' beliefs about routine patient consent and their year of study ($p > 0.05$). However, in emergencies, there was a significant correlation between the participants' year of study and their beliefs about treating children without guardian/parent consent ($p = 0.03$) and adhering to patients' wishes ($p = 0.007$). Similarly, for non-emergency settings, a significant correlation was observed between the participants' year of study and their beliefs about treating children without

guardian/parent consent ($p=0.008$), while other questions in this category didn't show a significant correlation ($p>0.05$).

Table 1: Major findings of the study

Item	Agree <i>n</i> (%)	Not Sure <i>n</i> (%)	Disagree <i>n</i> (%)
Consent should be taken for			
All major operations	188 (93%)	6 (3%)	8 (4%)
All minor operations	184 (91%)	8 (4%)	10 (5%)
Routine investigation	180 (89%)	8 (4%)	14 (7%)
Treatment with adverse reactions	176 (87%)	10 (5%)	16 (8%)
General Physical Examination	182 (90%)	12 (6%)	8 (4%)
Male genital examination	180 (89%)	8 (4%)	14 (7%)
Female genital examination	180 (89%)	12 (6%)	10 (5%)
In an Emergency situation			
Children can be treated without parents'/guardians consent	122 (60%)	24 (12%)	56 (28%)
Adults can be treated without their consent	114 (56%)	22 (11%)	66 (33%)
Patient's wishes must be adhered to	124 (61%)	36 (18%)	42 (21%)
Doctor can refuse treatment if patient is unable to bear their fees	34 (17%)	26 (13%)	142 (70%)
Doctor can refuse to treat violent patients/patients with violent relatives	72 (36%)	28 (14%)	102 (50%)
In a non Emergency situation			
Children can be treated without	14 (7%)	20 (10%)	168 (83%)

parents/guardians consent			
Adults can be treated without their consent	16 (8%)	20 (10%)	166 (82%)
Patient's wishes must be adhered to	132 (65%)	38 (19%)	32 (16%)
Doctor can refuse treatment if patient is unable to bear their fees	46 (23%)	52 (26%)	104 (51%)
Doctor can refuse to treat violent patients/patients with violent relatives	84 (42%)	42 (21%)	76 (37%)
Confidentiality is an important ethical issue in medical practice	164 (81%)	24 (12%)	14 (7%)
Patient should be informed of a wrong doing	156 (77%)	18 (9%)	28 (14%)
If a patient refuses treatment due to his/her beliefs:			
Instruct them to find another doctor	126 (62%)	32 (16%)	44 (22%)
Continue with treatment	56 (28%)	40 (20%)	124 (44%)
Does the patient have the right to refuse treatment?	174 (86%)	12 (6%)	16 (8%)
Does the patient have the right to refuse life supporting treatment?	136 (67%)	18 (9%)	48 (24%)
If a terminally ill patient wishes to die should they be assisted to do so ethically?	66 (33%)	28 (14%)	108 (53%)
Is Euthanasia legalized in Pakistan?	6 (3%)	88 (44%)	108 (53%)

Table 2: Chi Square results, Association between the participants year of study and perception on taking consent.

Item	Students who agree <i>n</i> (%)	P Value
Consent should be taken for		
All major operations	188 (93%)	0.822
All minor operations	184 (91%)	0.110
Routine investigations	180 (89%)	0.329
Treatment with adverse reactions	176 (87%)	0.419
General Physical Examination	182 (90%)	0.419
Male genital examination	180 (89%)	0.130
Female genital examination	180 (89%)	0.298
In an Emergency situation		
Children can be treated without parents/guardians consent	122 (60%)	0.027
Adults can be treated without their consent	114 (56%)	0.200
Patient's wishes must be adhered	124 (61%)	0.007
Doctor can refuse treatment if patient is unable to bear their fees	34 (17%)	0.378
Doctor can refuse to treat violent patients/ patients with violent relatives	72 (36%)	0.214
In a non Emergency situation		
Children can be treated without parents/guardians consent	14 (7%)	0.008

Adults can be treated without their consent	16 (8%)	0.791
Patient's wishes must be adhered to	132 (65%)	0.105
Doctor can refuse treatment if patient is unable to bear their fees	46 (23%)	0.269
Doctor can refuse to treat violent patients/ patients with violent relatives	84 (42%)	0.161

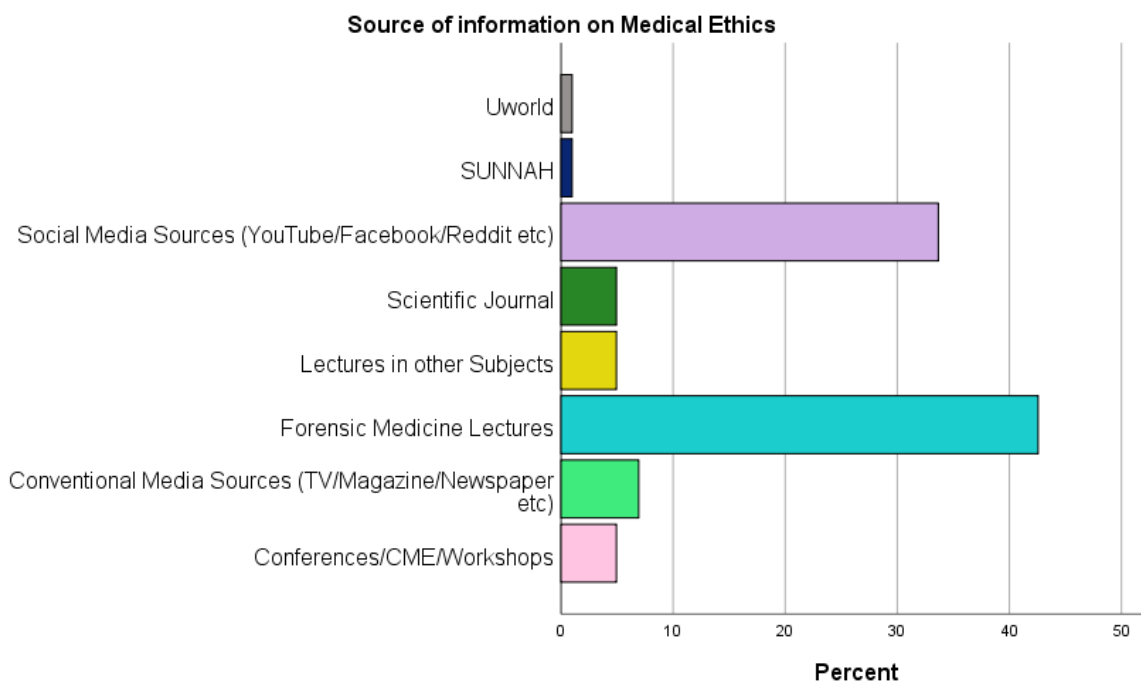


Figure 1: Source of information on Medical Ethics.

DISCUSSION

Medical ethics serves as a framework of standardized values and principles that govern the medical field, ensuring consistent and objective ethical resolutions while providing healthcare to diverse populations [13,14].

Adherence to robust medical ethics is vital to safeguard patient safety, autonomy, and trust in healthcare practices. It guides healthcare professionals in making ethical decisions, maintaining confidentiality, and obtaining informed consent [13,14]. This commitment to medical ethics fosters patient-centered care, contributing to improved healthcare outcomes and strengthened doctor-patient relationships [13,14].

Conversely, the absence of proper medical ethics can lead to serious consequences. This could result in violations of patient rights, including breaches of confidentiality and involuntary procedures. Unethical behavior can erode public trust in healthcare systems, potentially deterring patients from seeking treatment and even leading to legal repercussions for healthcare providers ^[14].

This study aimed to shed light on the initial stages of medical ethics education by examining how medical students from a prestigious public sector medical university perceived medical ethics and the extent of their knowledge on the subject. By identifying gaps in understanding, this research provides insights that could shape future medical education practices and enhance clinical awareness ^[15].

The demographic composition of the study participants showed a majority of female students (63.4%), in line with the institute's academic intake ratio, with male students forming a smaller proportion (36.6%). The participants' ages ranged from 18 to 25 years, representing various academic years from 1st to 5th.

Most participants gained their knowledge of medical ethics from Forensic Medicine lectures (42.6%), followed by social media platforms (33.7%), and other sources (23.7%) such as scientific journals, conferences, and workshops. This diversity underscores the varied avenues of knowledge acquisition, emphasizing the importance of a consistent medical ethics curriculum across educational levels ^[16,17].

Regarding consent in different medical scenarios, participants demonstrated a solid understanding of the importance of informed consent for routine procedures, investigations, and treatments. However, variations emerged in responses concerning consent during emergencies. While there was consensus on treating children without guardian consent based on patient wishes, discrepancies arose in cases of treating patients unable to pay medical fees and providing care to violent patients and their relatives. This highlights the need for formal education and practical experience to develop ethical decision-making skills in urgent situations ^[16,17].

Notably, a significant proportion of participants (81%) recognized the significance of patient -confidentiality, and a substantial portion (77%) believed patients should be informed of medical errors. These findings underscore the ethical obligations of physicians to uphold patient privacy and honesty, even in challenging circumstances ^[16,17].

Participants' views on patient autonomy and end-of-life decisions largely aligned with patient rights. Most agree that patients have the right to refuse treatment and life-sustaining interventions. However, opinions diverged on physician-assisted suicide and euthanasia, reflecting the ethical complexities surrounding these topics. Intriguingly, around 49.5% of students were unsure or believed that physician-assisted suicide was legal in Pakistan, indicating a need for improved education on these matters and related ethical guidelines ^[16,17].

The study also investigated whether participants' understanding of consent and ethical issues changed as they progressed through their studies. The Chi-Square test revealed no significant correlation between routine consent beliefs and academic year, but correlations emerged for specific scenarios, like treating children without guardian consent and adhering to patient wishes in emergencies. This suggests that exposure to medical education and clinical experiences might influence students' ethical perspectives over time [16,17].

However, it's important to acknowledge limitations. The sample size might restrict generalizability, and the study's focus on a specific region could limit cross-cultural applicability. Moreover, the study focused on specific aspects of medical ethics, warranting further research for a comprehensive assessment of students' practical understanding [16,17].

In conclusion, medical ethics plays a crucial role in maintaining the integrity of healthcare systems and ensuring patient-centered care. The findings of this study emphasize the importance of a comprehensive medical ethics curriculum and structured clinical experiences in cultivating ethical decision-making skills among medical students. By identifying knowledge gaps, this study lays the groundwork for refining medical education practices and enhancing ethical awareness [15-17].

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