

Nepalese Medical Students' Perception of Human Cadavers: Ethical Perspectives

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ABSTRACT

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Introduction: Cadaveric dissection has long been a cornerstone of medical education. In Nepal, medical students are introduced to cadavers through demonstrations that serve as an essential method for teaching and learning anatomy. Understanding how students perceive the dead body and its dissection is crucial to fostering a respectful learning environment and reinforcing ethical conduct.

Objective: This study aims to study medical students' perceptions of cadavers and to discuss its ethical aspects.

Methods: This descriptive cross-sectional study was conducted in Devdaha Medical College through convenient sampling of 160 preclinical medical students. Structured questionnaires were used to collect data, which were kept anonymous. They were entered in Microsoft Excel and the results were expressed in frequency and percentage.

Results: Most students felt intense emotions (36.7%), exposed to death (61.5%), and found it to be a transformative experience (75.2%) after dealing with a cadaver. Majority of them agreed to have been considerate towards cadavers (88.1%), contemplate morality (91.7%), respectful (73.4%) and follow the code of conduct (88.1). Maximum students perceived cadaver to be essential to medical education (90%) and obligation to learn (82.6%), while a slightly more (40.4%) disagreed to be desensitize to the emotional and cognitive difficulties

Conclusion: Medical students largely perceive cadavers positively and as learning tools, enabling them to approach dissection with objectivity while fostering a sense of detached concern.

Keywords: Cadaver; dissection; ethics; medical students; perception.

INTRODUCTION

The human body is perpetually the core of medical education, whether alive or deceased. While cadaveric provides invaluable insights into human anatomy and physiology, dissection further allows students to develop a clear, three-dimensional understanding of the body and its variations; fostering both knowledge and skills.¹⁻³

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Additionally, teamwork during practical promotes peer learning, discussion and collaboration. Beyond its technical importance, cadaver dissection evokes a range of emotional responses, prompting reflection on life, death, human mortality and ethical issues.⁴⁻⁶ While many students find the experience stimulating and enriching, some find it distressful and uncomfortable.^{7,8} Understanding, enhancing students' comfort and perspective contribute significantly to their overall

learning, ultimately preparing them for patient-centered medical practice and lasting impact.⁹⁻¹²

In Nepal, medical students are introduced to dissection, beginning in their preclinical years through traditional methods.¹³ With the rising number of students enrolling in MBBS programs annually, shaping their experiences in a manner that integrates technical competence with ethical and humanistic values is of paramount importance. Despite its integral role in their learning process, there is limited research exploring their personal experiences, perceptions, and emotional responses towards cadavers, especially the ethical aspects.^{7,12,14-19} Hence, this study aims to study Nepalese medical students' perceptions of human cadavers and examine its ethical aspects.

METHOD

This cross-sectional descriptive study was conducted at Devdaha Medical College and Research Institute, Rupandehi. The study started after obtaining permission from the preclinical coordinator and written informed consent from the participants after they were informed about the study. The data was collected in predefined questionnaire in printed form from the first-year medical students of sixth, seventh and eighth batch from July 2022- January 2024. The questionnaire was prepared

by the authors after careful consideration and deliberation of latest review of literatures and expert advice.^{1,5,8,11,12}

The questionnaire was pretested for face validation initially in a group of 13 students, visiting the department during their clinical posting, to ensure its structure and content validity and reliability. The questions which seemed futile were discarded and those considered as ambiguous were reframed and reconstructed. A final questionnaire was set which was then distributed to 160 students; which included the pretested students as well. Each student was asked to reflect upon their experience during the dissection of a cadaver within a set of questionnaires. Those who had dissected a cadaver and completely filled and returned the questionnaire were included in the study whereas those who neither completed nor returned the form were excluded. The questionnaire had two sections: A (demography), B (statements on perception). The statements were rated on the basis of three-point Likert scale. The data was coded, entered in Microsoft excel. Ethical approval was obtained from Institutional Review Committee of Devdaha Medical College (Ref. no. 764/078/079).

RESULTS

A total of 160 questionnaires were provided, of which 117 responded. 109 participants filled them fully and 8 of them,

partial. The responders were 56 (51.4%) males and 53 (48.6%) females. The mean age was 21.53, SD- 1.44. Majority of the students had overwhelming emotional response, exposure and transformative experience. (Table 1)

Majority of the students had a positive experience with cadaver which enabled them to deal with cadavers ethically. Ethical concerns were framed as above statements such as: Respect for body- I handled the body with respect, Privacy/ professionalism/ Institutional regulation/ Cultural sensitivity- I observed the code of conduct. The students take cadaveric oath before the beginning of dissection where the mentioned ethical behaviors are taught and sworn. However, concerns regarding source of cadavers and body donation were not included due to its overarching nature which demands a separate study in itself.⁹

Majority of the students perceived cadaver to be essential to medical education 98(90%) and felt an obligation to learn 70 (64.2%), while a slightly more 44(40.4%) disagreed to be desensitized to the emotional and cognitive difficulties. Majority of the students had a positive experience with cadaver which enabled them to deal with cadavers ethically.

Table 1: Emotional response towards the cadaver.

Statements	Agree N (%)	Neutral N (%)	Disagree N (%)	Total
It was emotionally overwhelming to see a cadaver	40 (36.7)	35 (32.1)	34 (31.2)	100
It gave me an intimate exposure to death	67 (61.5)	22 (20.2)	20 (18.3)	100
It was a transformative experience	82 (75.2)	20 (18.3)	7 (6.5)	100

Table 2: Ethical aspects of the cadaver.

Statements	Agree N (%)	Neutral N (%)	Disagree N (%)	Total
It made me considerate towards cadaver	96 (88.1)	8 (7.3)	5 (4.6)	100
It made me contemplate my own morality	100 (91.7)	8 (7.3)	1 (0.9)	100
I handled the body with respect	80 (73.4)	20 (18.3)	9 (8.3)	100
I observed the code of conduct	96 (88.1)	11 (10.1)	2 (1.8)	100

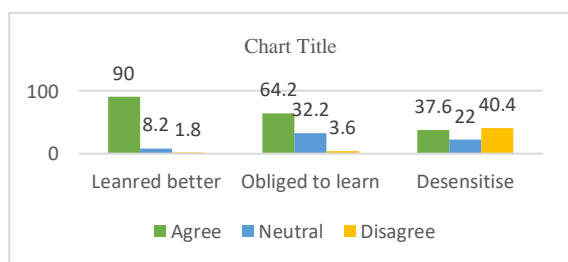


Figure 1: Learning Effects on the students

DISCUSSION

In the present study, 36.7% of the students reported an overwhelming emotional response, while 32.1% remained neutral and 31.2% were unaffected. Any strong emotional reaction was considered overwhelming. Previous studies have similarly reported apprehension, anxiety, excitement, fear and

sadness.^{18,22} Nearly half of the students were affected by dissection, with females more frequently experiencing anxiety.^{21,8,23} Comparable findings showed that 34.7% and 37.3% of students experienced fear and anxiety, respectively, during dissection respectively.²⁰ In a study, where emotions were classified as positive or negative, 70% of students identified at least two negative emotions, while 60% to 94% reported positive ones. Higher anxiety levels were associated with more negative feelings.²³

Despite this, most students held a positive perception overall, though they emphasized the need to address negative emotions.^{22,24} One study noted that 20% anticipated anxiety before dissection, but only 5.3% experienced it during the actual process. Interventions such as mental preparedness, gradual exposure, background music, and coping mechanisms (63%) significantly reduced anxiety.^{7,17,18} Preparing students in advance regarding cadaver handling and dissection procedures was also shown to be beneficial. Accentuating positive emotions—such as gratitude, respect, and responsibility helped mitigate negative ones. Encouraging students to express both positive and negative reactions, while thoughtfully acknowledging the latter, was considered valuable.^{23,16} Rituals such as memorial ceremonies further fostered respect, ethical awareness, and professionalism, leading to better emotional adjustment and increased attendance. Notably, 90% of students agreed that such practices should remain a part of medical curriculum.²⁵ In this study, 61.5% of respondents acknowledged experiencing an intimate confrontation with death. Exposure to cadaver confronts the students with negative emotions, often triggered death anxiety, particularly among females and those with recent bereavement.²³ However, another study reported that 51% of students had prior exposure to a dead body, and 44.7% of them responded positively and were able to adjust.²⁰

A majority (71.5%) of participants described the experience as transformative, while 22% were neutral and 6.5% disagreed. Any positive shift in perception before and after exposure was considered transformative. Although some students initially reported neutrality or negative emotions, most ultimately described the experience as life-changing. Similar findings emphasized that confronting death and cadavers contributed to both personal and professional growth, which was considered a critical step in medical training.^{21,26} Where memorial ceremonies accompanied cadaver exposure, students described the experience to be more meaningful and transformative.

Initial hesitation often gave way to respect and appreciation for body donation and was likened to a doctor–patient relationship.²⁵ Feelings of curiosity or anxiety gradually transformed into that of responsibility and professional identity. These experiences were often described as a “threshold concept,” “unique,” “thought-provoking,” and essential for professional identity formation.¹⁸

Handling a dead body raises significant humanistic and ethical issues, such as whether to regard it as a specimen or as a person, and concerns shaped by cultural taboos or religious beliefs such as cutting up an already dead body or using a body as right or wrong. In this study, majority reported becoming more considerate toward cadavers while reflecting on morality. Similarly, 94.3% acknowledged a cadaver’s personhood and expressed gratitude. They empathized with cadavers, considering their lives and living individuals or even relating the body to themselves. The “first cut” was frequently described as a turning point, deepening appreciation for both technical skills and ethical values. Early exposure to such reflections was seen as essential for cultivating professionalism. However, gradual and voluntary sensitization to death was recommended, allowing students to process their emotions effectively.^{15,26-28}

Most students agreed that they treated cadavers with respect and adhered to the code of conduct, while some had neutral response, in comparison to other statements. This indicates a room for improvement and emphasis on why ethical consideration is important and rights of dead. A similar study reported 96.6% medical ethics education and taking oath before the process. However, gender and religion were found to influence ethical views.²⁷ Expressing gratitude was widely recognized as an ethical practice, fostering early professionalism. Students also reported feelings of being a doctor, demonstrating how cadaver dissection instilled professional values beyond technical skills.¹⁸ Studies recommend deliberate integration of medical ethics into anatomy curricula, highlighting cadaver dissection as not only an educational tool but also an ethical training platform.^{14,18,28} In one study, 90.7% of students felt that dissection aligned with their religion and 88.8% with their culture, further affirming ethical conduct.²⁰ Positioning dissection as both a rite of passage and professional formation can enhance emotional and moral resilience by encouraging team-based and peer-supported practices.¹⁵

The vast majority of students considered cadavers essential for medical education, however less felt an obligation to learn and more than half had to desensitized their emotional and cognitive challenges while studying. Similarly, 92.9% regarded cadavers as integral to anatomy teaching.²⁹ Cadaver dissection stimulated interest and motivation in 94.2% of students and improved practical skills in 91.8%, although only 6.6% supported its inclusion in the curriculum.¹⁴ Despite this contrast, most agreed that dissection remains valuable, appropriate, and essential. Effective implementation of preparatory programs and complementary learning methods were recognized to counter negative emotions.^{11,24,26} In another study, 90.1% of students found cadavers helpful for learning, 83.2% reported improved comprehension, and 87% felt cadavers aided memory recall, with 77.6% considering it an effective teaching tool. However, 56.5% reported difficulty appreciating the three-dimensional body and locating structure.²⁰ Recent approaches advocate perceiving the cadaver as both a teacher and a first patient. Many students in this study perceived the cadaver objectively and felt no obligation to learn. While a study showed that 84% of the first-year students preferred refer the cadaver as “teacher” to “patient,” though many still acknowledged it as their first patient.³⁹ Students acknowledged it to be an appropriate and valuable educational tool.²⁶ They were found to be empathetic and sensitive as well.

Only through desensitization, introspection and deliberation of their emotions, a balance was achieved which helped them regulate their thought, hence grooming professional identity and improving cognition. These kinds of educational interventions encouraged humanistic, social, and moral domains.¹⁵

CONCLUSION

Cadaver dissection evokes a wide range of emotions among students, with many experiencing overwhelming feelings along with revelation to death, which was considered a positive and transformative experience fostering personal growth and professional identity. Ethically, students remarkably report handling the body with respect, reflecting on mortality, and acknowledging their ethical values, which strengthens early professionalism. Academically, the majority viewed cadavers as essential for anatomy learning, reinforcing the role of cadavers as both “teachers” and “patients” or “donors”. Overall, dissection served not only as an educational tool but also as a rite of passage that nurtures emotional resilience, ethical sensitivity, and professional formation. It is recommended to have studies on larger sample size and also of qualitative in nature to have broader perspectives on the topic such as sources and donation of the body, consent, retention of tissue or body parts etc.

Conflict of Interest: None

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