

Perception of First-Year Medical Students Towards Cadaveric Oath

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ABSTRACT

Background: Cadaveric oath-taking is a special way of expressing respect and gratitude to the donors and their families of medical students. The cadaveric oath-taking ceremony was organized for the first time in our medical college. Our study was carried out with the aim of understanding the perceptions of the students after the oath-taking ceremony.

Methods: This is a descriptive cross-sectional study conducted in the Department of Anatomy among first-year medical students of a medical college. The total sample size was 100. Data was collected using a pre-structured questionnaire among a group of students who took part in a cadaveric oath-taking ceremony, conducted for the first time in the medical college.

Results: Sixty-eight percent of the respondents strongly agreed that cadaveric oath is important in anatomy learning. Eighty-four percent of respondents fully agree with the fact that cadavers are silent mentors. About 88.00% of respondents strongly agreed that they should be thankful to the family members for the noble gesture of body donation. Ninety-five percent of respondents strongly feel that cadavers should be treated with respect, compassion, care, and dignity.

Conclusions: The cadaveric oath-taking ceremony holds significant importance in medical education, providing a unique opportunity and avenue to pay tribute to donors and acknowledge their generous contributions. Our study strongly supports integrating the cadaveric oath ceremony at the start of anatomy dissection, fostering ethical principles among aspiring doctors, and honoring the invisible guides in the field of medical education.

Keywords: Anatomy; cadavers; cadaveric oath

INTRODUCTION

The human cadaver is the “silent mentor” that helps to explore the human body in a way better than any mode of anatomy learning.¹ It is an exclusive unique educational tool in the medical curriculum.² The contribution human cadaver has made to future doctors is beyond description.³ A study suggests that such educational interventions can be an effective tool in maintaining and enhancing empathy.⁴

Dissection has been an essential part of learning since the 15th century.⁵ However, medical students at their first encounter with cadavers are often seen making fun of cadavers.⁶ It can be overwhelming to evoke the right emotions while encountering a dead body, anatomy class can be the ideal place to cultivate empathy in medical students.⁷

Every year, at the commencement of the first year of MBBS program, our medical college conducts a ceremony where students take on Cadaveric Oath at the dissection hall in the presence of cadavers. Our study aimed to comprehensively understand how the Cadaveric Oath taking ceremony influences the perception of first-year MBBS students as they embark on their journey of medical education.

METHODS

This is a descriptive cross-sectional study conducted in the Department of Anatomy among first-year medical students in a medical college. Purposive sampling and the census method were used as all the students enrolled in the first year of medical school who had participated in the Cadaveric oath-taking ceremony were our sample size. The total number of students

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in the first year was 100 making our sample size 100. We used a structured questionnaire for this study as its primary data collection tool, inspired by the work of Keche et al.¹² A questionnaire was prepared for the study adapting relevant items and questions from the study by Keche et al. A pilot study was conducted among a smaller group of students similar to the target group to ensure validity and appropriateness of the questionnaire and final questionnaire modified based on their feedbacks. Data was collected through the distribution of the questionnaires among groups of students who had taken the cadaveric oath in the anatomy dissection lab from 6th June to 10th June. Informed consent was taken from all the students for the study. Ethical clearance was obtained from the institutional review committee before the start of the study (NAIHS IRC Reg No: 6983, dated April 2022).

Data were entered in Microsoft Excel and analyzed using SPSS version 21.0. Statistical analysis was done by using descriptive statistics. The percentage of the students who answered the questions on a five-point Likert scale was calculated. A ninety-five percent confidence interval for the mean was calculated.

RESULTS

All 100 first-year medical students participated in the study. Among them, 71 % were male and 29% were female (Figure 1). The majority of the participants (68%) belonged to the age group 18-20 years. Most of the participants (95%) were Hindus as shown in Table 1.

Table 1. Showing Age Distribution and Religion of The Respondents.

| Age group | Frequency |
|-----------------|-----------|
| 18-20 | 68 |
| 21-23 | 31 |
| 24-26 | 1 |
| Religion | |
| Hindu | 95 |
| Buddhist | 3 |
| Others | 2 |

Table 2. Showing Response Regarding Cadaveric Oath and Medical Education.

| Statements | Strongly Agree (%) | Agree (%) | Neutral (%) | Disagree (%) | Strongly Disagree (%) | Mean (+-) | 95% CI |
|--|--------------------|-----------|-------------|--------------|-----------------------|-------------|-----------|
| There is importance of cadaveric oath in anatomy learning. | 68 | 30 | 1 | 1 | 0 | 4.26 ± 0.56 | 4.58-4.77 |
| It is a unique and essential aspect of the medical curriculum. | 57 | 41 | 2 | 0 | 0 | 4.55 ± 0.54 | 4.46-4.57 |
| You accept the fact that cadavers are your silent mentors. | 84 | 15 | 1 | 0 | 0 | 4.82 ± 0.46 | 4.78-4.92 |

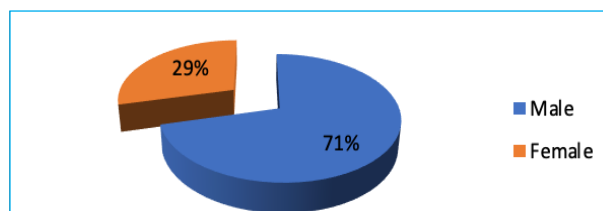


Figure 1. Showing Gender Distribution of Respondents

A significant percentage of the participants (68%) of the respondents strongly agreed that cadaveric oath holds significant importance in the context of anatomy learning. This collective response was reflected by a high mean score of 4.26 ± 0.56 (95% CI, 4.58-4.77). While evaluating the statement “Cadaveric oath is a unique and essential aspect of the medical curriculum,” a substantial 57 % of participants strongly agreed with a notably high mean score of 4.55 ± 0.54 . A significant 84 % of respondents fully agree with the fact that cadavers are ‘silent mentors.’ This consensus was evident with a mean score of 4.82 ± 0.46 (95% CI, 4.78-4.92) as shown in Table 2. A consistent pattern of strong agreement among the participants was observed in regard to the cadaveric oath’s significance in the field of medical education.

A notable 28 % of students strongly agreed that this event facilitated the overcoming of their inhibitions and its mean was 4.07 ± 0.76 . Forty-two percent of the respondents strongly agreed that the cadaveric oath ceremony is heart-touching and empathetic aligning with a mean score of 4.07 ± 0.76 (95% CI, 3.92-4.22). The aspect of gratitude towards family members of the body donors gathered significant support, with an impressive 88% of respondents expressing their strong agreement with a mean score of 4.85 ± 0.44 . Sixty-one percent of respondents strongly agree that they were enlightened about the importance of once-lived bodies after taking the cadaveric oath. Ninety-five percent of respondents expressed a strong belief in treating cadavers with respect, care, compassion, and dignity, resulting in a remarkable mean score of 4.94 ± 0.28) as shown in Table 3.

Table 3. Showing the response regarding Cadaveric Oath and Personal Development.

| Statements | Strongly Agree (%) | Agree (%) | Neutral (%) | Disagree (%) | Strongly Disagree (%) | Mean (+-) | 95% CI |
|--|--------------------|-----------|-------------|--------------|-----------------------|-------------|-----------|
| Cadaveric oath event helps you to overcome your inhibitions. | 28 | 54 | 13 | 4 | 0 | 4.07 ± 0.76 | 3.92-4.22 |
| Cadaveric oath event is heart touching and empathetic. | 42 | 44 | 11 | 3 | 0 | 4.25 ± 0.78 | 4.13-4.42 |
| You should be thankful to the family members for their noble gesture of donating body for medical training and research. | 88 | 9 | 3 | 0 | 0 | 4.85 ± 0.44 | 4.79-4.95 |
| After cadaveric oath, you are enlightened about the importance of once lived bodies. | 61 | 31 | 6 | 2 | 0 | 4.51 ± 0.70 | 4.40-4.67 |
| Cadavers should be treated with respect, compassion, care and dignity. | 95 | 4 | 1 | 0 | 0 | 4.94 ± 0.28 | 4.92-5.00 |

Table 4. Showing Perception of Cadaveric Oath in Continued Medical Education.

| Statements | Strongly Agree (%) | Agree (%) | Neutral (%) | Disagree (%) | Strongly Disagree (%) | Mean (+-) | 95% CI |
|--|--------------------|-----------|-------------|--------------|-----------------------|-----------|-----------|
| Cadaveric oath event should be continued for future undergraduate medical students. | 68 | 31 | 1 | 0 | 0 | 4.67±0.49 | 4.69-4.59 |
| There should be awareness about bioethical education (ethics of medical and biological research) among medical students. | 73 | 26 | 1 | 0 | 0 | 4.72±0.47 | 4.62-4.81 |

The majority of respondents (68%) strongly agreed that the Cadaveric oath event should be continued for future medical undergraduates. More than two third of respondents (73%) strongly agree that there should be awareness of bioethical education (ethics of medical and biological research) among medical students with a mean score of 4.72 ± 0.47 (95% CI, 4.62-4.81).

DISCUSSION

Cadaveric oath-taking ceremonies are common practices that occur in medical institutions globally as a part of the curriculum. The ceremony in our medical college was the first such event. Studies have shown its positive impact on the students' values like respect, gratitude, compassion, care, and duty towards the cadaver. These studies have emphasized the need for curriculum-based ethical guidelines and standards regarding working with cadavers.^{7,8,9} In our study, 68% strongly agreed that the cadaveric oath is important in anatomy learning and that it is a unique and essential aspect of the medical curriculum was strongly agreed by 57%. A study by Lalit et al showed that 96.37% of respondents agreed that dissection remains the best method of learning anatomy.¹⁰ Dissection of the cadaver helps in developing a spatial and tactile appreciation of the structures which they cannot learn from models, textbooks or 3D

programs, variation between individuals, the effects of any disease on the body etc.^{11,12} Our research shows a consistent pattern of strong agreement among the participants in regard to significance of cadaveric oath in anatomy education. Our results have collectively underscored the positive perceptions of medical students on silent mentors of human anatomy which influences their understanding of anatomy and medical education.

Only about 28% strongly agreed that this event helps them overcome their inhibitions while 42% strongly agreed that it is heart-touching and empathetic. It was found to be more in a study by Rocha et al, where 83.50 % agreed that the oath-taking ceremony contributed to strengthening empathy.¹³ These collective outcomes emphasize the positive understanding among participants leading to strong commitment to treat cadavers with utmost consideration.

Regarding mental preparedness for dissection, our results are similar to a study by Asante et al, where 46.6% were mentally prepared for dissection.¹⁴ However, it is in contrast to a study by Leboulanger et al where 95% felt ready to handle the dissection for the first time.¹⁵ 86.96% agreed that dissection enhanced their thinking skills.

Our findings on agreement about being thankful to family members (88% strong agreement) are relatable to a study done in India where 98.3% of students had a sense of gratitude to people who donated their bodies and 96.1% had sympathy and respect for the cadaver.¹⁶ The similar findings may be due to notable cross-cultural consistency in feelings of appreciation and respect.

Sixty-one percentage of respondents in our study affirmed strong enlightenment about the importance of once-lived bodies. Contrastly Keche et al showed a higher 95 % strong agreement in their study.¹⁷ This kind of awareness informs respectful cadaver treatment and also acknowledges their past aspirations and lives..¹⁸

Ninety five percent of respondents strongly advocated for a respectful treatment of cadavers, also emphasizing the importance of compassion and care. Cadaveric oath-taking can disseminate the belief in dignified treatment during dissection. In some parts of the world, there has also been the practice of holding memorial ceremonies as a part of gratitude towards the donated human bodies.⁸ 84% of our respondents strongly agreed to the fact that the cadavers are our silent mentors.

In our study, 68% strongly supported a continuation of cadaveric oath events for upcoming medical students and 73% strongly agreed on the importance of bioethical education in medical curricula. This demands ethical guidance in medical and biological research among students by ethical training within medical education.

Cadaveric oath-taking should be practiced in every medical college because of the role it plays in taking the pledge to respect the dignity and integrity of the human body that they are about to dissect. Knowing about the importance of treating these once-living bodies with respect and acknowledging the generosity of the donors for donating their bodies for medical education will contribute to making them efficient future doctors and empathetic as well.¹⁹

Our study's limitation includes a single center, limited sample size, and focus on a single event of a specific medical college.

CONCLUSIONS

We conclude that the cadaveric oath-taking ceremony holds significant importance in medical education, providing a unique opportunity and avenue to pay tribute to donors and acknowledge their generous contributions. Our study strongly supports integrating the cadaveric oath ceremony at the start of anatomy dissection,

fostering ethical principles among aspiring doctors, and honoring the invisible guides in the field of medical education. We recommend all medical institutions embrace this practice to instill moral values, nurturing empathy and reverence among future generations of healthcare practitioners.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

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