

**Original article:**

## Perception of students towards the cadaveric dissection

\*Dr Shilpa.Bhimalli<sup>1</sup>, Dr.R.D.Virupaxi<sup>2</sup>, DrSheetal Pattanshetti<sup>3</sup>, DrMahantesh Siddibhavi<sup>4</sup>

Professor<sup>1</sup>, Professor & HOD<sup>2</sup>, Associate professor<sup>3</sup>, Dept of Anatomy KLE'S Jawaharlal Nehru Medical College Belagavi, Reader<sup>4</sup> Department of Public Health Dentistry, KLE'S V.K.Institute Dental Sciences Belagavi  
Corresponding author\*

---

**Abstract:**

**Introduction:** Cadaveric dissection has been used as the main method for teaching human anatomy since five centuries for the medical students. It is designed to give students a view of the body and also help them to understand and learn the subject in detail.

**Method:** A total of 100 newly admitted first year medical students reaction to the first day entering to dissection hall and their reaction towards cadaveric dissection were assessed by using a Questionnaire. The questionnaire was given to the students just a few weeks after they started attending their dissection.

**Result:** Majority of the students experienced with eye watering (84%), and smell of the cadaver (79%) on first day entry into the dissection hall. 96% of the students were determined, interested, and prepared to study anatomy with cadaveric dissection. Most of the students consider the dissection as the best method to study anatomy and is important and helpful to have dissection in UG curriculum.100% of the students have shown a sense of gratitude to the people who have donated their bodies.

**Conclusion:** Cadaveric dissection is the best method to study gross anatomy, and UG curriculum should include dissection as majority of the students are determined, prepared and interested to study anatomy with cadaveric dissection.

---

**Introduction:**

Cadaveric dissection has been used as the main method of teaching human anatomy since centuries for the medical students. It is designed to give students a view of the body and help them to understand the subject in detail. Even though the dissection method is emotionally stressful it provides essential knowledge and skills for their future studies (1). There is an area of concern for physiological, emotional reactions and mixed feeling by the first year medical students when they encounter with human cadavers for the first time in dissection room. Though initially the dissection might be a challenging with many symptoms associated with it but many of the students adapt the situation quickly (2). The exposure to the cadavers has both the physical like smell, nausea, conjunctival irritation and psychological like anxiety, stress, emotional trauma depression impact on the

students (3). So the present study was to assess the attitude and to know the perception of the students towards cadaveric dissection in understanding the anatomy

**Materials and Methods:**

A total of 100 newly admitted first year students at J.N.Medical College, Belagavi were included for the study. The student's reactions towards cadaveric dissection were assessed by using a standard questionnaire. The first questionnaire was given to the students just a week before they started attending their dissection. And the second questionnaire was given 3 weeks later they started their cadaveric dissection. The Data obtained from the questionnaire were analyzed. Adequate explanation was given to the students about the objective and relevance of the study before they filled the questionnaire.

**Results:**

The response and attitude of the students changes with the duration of contact increases.

**Table: 1 Attitude of the students towards dissection**

Factor	Questionnaire(1) Before dissection	Questionarie(2) After starting dissection
Fear	90%	17%
Excitement	63%	88%
Interest	68%	86%
Depression	31%	09%

The students interest and excitement increased towards the cadaveric dissection whereas the fear and depression decreased from 90% to 17%, 31% to 9% respectively.

**TABLE-2 The symptoms experienced by the students on the entry into dissection hall**

Symptoms	percentage
Nausea	18
Vomiting	06
Formalin odor	79
Fear	06
Eye watering	84
Eye redness	22
Skin irritation	08
Syncope	01
No symptoms	04

It was observed that eye watering and formalin odor were the main symptoms experienced by the students. Symptoms like nausea, vomiting, skin irritation, eye redness, were also reported by the students. The odor of the formalin was the main cause for all the above symptoms. More than 50% of the students responded that

it was the determination towards studying the anatomy through cadaveric dissection which made them to manage the symptoms when they first entered the dissection hall. Few of the students responded that staying in groups, relaxing and advice from the teachers help them to manage the above symptoms

**Table -3 Responses on attitude towards dissection among students**

Sl-No	Questions	Yes	No
1	Are you prepared to study on the cadaver?	76%	24%
2	Are you curious to learn Anatomy?	88%	12%
3	Are you interested to dissect?	78%	22%
4	Do you think it is important or helpful to have dissection in UG curriculum?	98%	02%
5	Have you ever seen a dead body before?	53%	47%
6	Do you have a sense of gratitude to people who donated their bodies?	100%	-

Majority of the students are prepared, curious and interested to learn anatomy through cadaveric dissection. The students responded that the UG curriculum should incorporate the dissection method for teaching anatomy for the students. All the students have a sense of gratitude to the people who donated their bodies. It was observed that majority of the students got the information about the Skelton through the school labs, textbooks, school trips of medical exhibition, models. The students had knowledge about personal safety measures like wearing gloves, cutting nails, using disinfectant soap after dissection and wearing mask, while handling the cadaver/dissected specimens.

**Discussion:**

The students learn anatomy from the cadaveric dissection. The previous literature reveals that they are variant responses of the student of attitude towards cadaveric dissection. The results revealed that fear decreased while interest and excitement of the students towards dissection increased, the same response has been observed in many of the studies that fear and nausea decreased while the interest and excitement of the students towards dissection increased (4). Many studies

showed that the leading factors which made the dissection more stressful for the students were the chemical odor and eye irritation. While the present study showed that eye watering, formalin odor as the main symptoms observed by the students while symptoms like nausea, vomiting, giddiness, skin irritation eye redness was also reported by the students.

Many of the students were prepared and curious to study anatomy on cadavers. Few of the studies also showed that the respondents were eager and prepared to study gross anatomy on cadavers.

More than 50% had prior experience with the dead bodies and all the students had a sense of gratitude to the people who have donated the dead bodies. This is in concordance with the other studies done in Kenya where the respondents had sympathy and gratitude towards the people for donating the bodies. The first exposure to the students about the skeleton was through text books few also got the information through skeletons kept in their school lab, few of the students learnt about it through school exhibition and few learnt it through models present in the school. The students had the knowledge about the hygiene that they need to wear gloves while

handling with cadavers and to wash with disinfectant after touching the cadaver.

**Conclusion:**

The present study has shown that excitement and interest towards dissection increased, while fear and depression decreased with exposure to cadaveric dissection. The formalin odor and eye watering were the main symptoms

experienced by the students on exposure to cadaver. Majority of the students are prepared and curious to study anatomy with dissection method. The students think that UG curriculum should have dissection for learning anatomy.

**References**

- 1 Rajkumari A, Singh Y. Body donation and its relevance in anatomy learning: A review. *J AnatSoc India*.2007; 56:1–6.
2. Cahill KC, Ettarh RR. Attitudes to anatomy dissection in an Irish medical school. *Clin Anat*.2009;22(3):386–391.
3. McLachlan JC, Bligh J, Bradley P, et al. Teaching anatomy without cadavers. *Med Educ*. 2004;38(4):418–424.
4. Azer SA, Eizenberg N. Do we need dissection in an integrated problem-based learning medical course? Perceptions of first- and second-year students. *SurgRadiol Anat*. 2007;29(2):173–180.
5. Korf H-W, Wicht H, Snipes RL, et al. The dissection course - necessary and indispensable for teaching anatomy to medical students. *Ann Anat*. 2008; 190(1):16–22.