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ATTITUDE OF MEDICAL STUDENTS TO CADAVER DISSECTION IN AHMEDABAD CITY

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ABSTRACT

The objective of the present study was to determine the attitude of 1st Year medical students to dissection where they are being taught anatomy as a part of medical curricula. A questionnaire was administered to a class of 150 students of 1st year medical students at Smt. NHL Municipal Medical College, Ahmedabad, Gujarat, India in 2012. For each question, the students were directed to opt for one of the three possible responses: “yes”, “no” or “undecided”. Out of 150 students participated in the study 70 were female and 80 were male. In present study 84.67% of the students considered cadaver dissection is still considered important and indispensable in anatomy learning. Majority student (91.33%) agreed that actual hands on training on cadaver dissection gives better results than demonstration of prosected specimen. 80% of the students were view of that dissection gives the best method for learning. 86% of the student found their first visit to dissection room exciting. 77.33% of the students agreed that dissection enhanced their skill of thinking in a logical manner. The present study indicates that cadaver dissection is still considered important and absolutely necessary in the study of human anatomy.

Keywords: attitudes, medical students, cadaver dissection, anatomy learning.

INTRODUCTION

Anatomy education is not only an essential part of the medical curriculum, but also helps to further the development of medical professionalism. Anatomy is an integral part of the medical curriculum; a sound understanding of human anatomy helps the medical undergraduate for his future training in the clinical disciplines. Cadaveric dissection has been a regular feature in anatomy teaching since the Renaissance. The benefits of meticulous dissection mostly fall into three domains: knowledge acquisition and integration, skills, and attitudes.² Dissection has been labelled as the “royal road”³ and the cadaver as the “first patient”⁴.

The initial exposure to a dead body causes emotional shock to the students^{5,6} though gradually they adopt a professional attitude and

accept dissection as an aid to study the body structure⁷, Variety of emotional reactions and mixed feelings experienced by first year medical students when they encounter human cadavers for the first time in the dissection room⁸

Some studies have indicated that students learn anatomy as well by studying prosections as they do by traditional dissecting^{9,10,11,12}. The use of cadavers for dissection has been identified by some as expensive, time consuming and potentially hazardous.¹³ It is for these reasons that dissection as a learning modality has been marginalised from medical curricula to the despair of some academics.^{14, 15, 16}. The objective of the present study was to determine the attitude of first year medical students to dissection where they are being taught anatomy as a part of medical curricula.

MATERIAL AND METHOD

This is a quantitative, study where a questionnaire was administered to a class of 150 students of first year medical students at Smt.NHL Municipal Medical College, Ahmedabad, Gujarat, India in 2012. Each student was explained the objective of the study and a questionnaire which consisted about visit to dissection room, mental and physical symptoms, causes of fear, previous encounters with death, reactions to dissecting room activity, respect for the cadaver; prior experience with a dead body before dissection, the possible alternatives for

replacing cadaver dissection by plastic models, computer assisted training programme and its importance and indispensability. There was complete anonymity as no names or numbers were mentioned. The data collected was then analyzed results discussed in the light of available literatures.

RESULT

Total 150 students participated in the study out of this 70 were female and 80 were male with means age 19 years.

Table 1: The Questionnaire and responses of students

No.	QUESTIONS	No of "Yes" responses (%)	No of "No" responses (%)	No of "Cannot say" responses
1	First visit to dissection room exciting	129(86%)	15(10%)	6(4%)
2	Upset over commencement of dissection	32(21.33%)	97(64.67%)	21(14%)
3	Do you have any apprehension to handle the cadaver directly	36(24%)	110(73.33%)	4(2.67%)
4	Do you ever think that the cadaver you dissected was once a living human being like you?	88(58.67%)	58(38.67%)	5(3.33%)
5	Do you think that you can do the dissection with assistance from your teacher?	117(78%)	19(12.67%)	14(9.33%)
6	Do you have any prior experience of a dead human body before entering the dissection room?	6(4%)	139(92.67%)	5(3.33%)
7	Do you think that dissection enhance the skill of thinking in a logical manner?	116(77.33%)	21(14%)	13(8.67%)
8	Do you think that dissection gives the best method for learning anatomy?	120(80%)	12(8%)	18(12%)
9	Do you think that actual hands on training on cadaver dissection gives better results than demonstration of prosected Specimen	111(74%)	30(20%)	9(6%)
10	Do you think that cadaver dissection is still considered important and in dispensable in Anatomy learning.	127(84.67%)	18(12%)	5(3.33%)
11	Do you think that Cadaver dissection technique can be replaced by plastic models, computer assisted training programme etc .in the near future?	10(%)	137(91.33%)	3(4.67%)

Table 2: Symptoms experienced by students on first entry to dissection room

Symptoms	Number of students (%)
Fainting	3(2%)
Dizziness	18(12%)
Nausea	33(22%)
Vomiting	3(2%)
Palpitation	1(0.67%)
Sweating	12(8%)
Loss of appetite	4(2.67%)
Insomnia	3(2%)
No symptoms	59(39.33%)
Other symptoms	14(9.33%)

Table 3: showing duration of symptoms among students

Duration of symptoms	Number of students (%)
Only first visit	46(30.67%)
Days	24(16%)
Weeks	7(4.67%)
Months	3(2%)
Up to now	16(10.67%)

Table 4: showing causes of fear of dissection room.

Smell of the room	64(42.67%)
Sight of the cadaver	8(5.33%)
Touching cadaver	3(2%)
Looking at certain part of cadaver	2(1.33%)
Touching at certain part of the cadaver	1(0.67%)
Fear of infection	6(4%)
Other causes	4(2.67%)
Not applicable	62(41.33%)

DISCUSSION

In present study majority of students considered cadaver dissection is still considered important and indispensable in Anatomy learning. Cadaver dissection has been considered as an essential requirement in learning gross anatomy particularly the three-dimensional aspect of human anatomy¹⁷ and has remained the universally recognizable step in becoming a doctor¹⁸ which puts undergraduates at the sharp end of medical education¹⁹.

80% of the students agreed that dissection gives the best method for learning anatomy. Handling of the human structures and organs creates a photographic memory while dissecting.²⁰. Majority student (91.33%) agreed that actual hands on training on cadaver dissection gave better results than demonstration of prosected specimen. This finding is consistent with the findings from previous studies conducted by Jones²¹, Johnson²², Rajkumari and Singh²³, Rajkumari⁸, Parker²⁴ and McLachlan¹⁸. Prakash²⁵ et al describes dissection as “a precious experience” not to be missed as cadaveric dissection has other learning outcomes besides anatomical learning, such as fostering teamwork and respect for the human body. The student-cadaver-patient encounter is paramount in medical education.

80% of the students were view of that dissection gives the best method for learning anatomy. This finding is consistent with previous study by Rajkumari⁸ and Izunya A.M..²⁶ 86% of the student found their first visit to dissection room excited which is favoured by the study of Mc Garvey et al²⁷ & Rajkumari.⁸ 77.33% of the students agreed that dissection enhanced their skill of thinking in a logical manner. This finding is consistent with other studies.^{28,29,8} The present study indicates that most of the students were not upset thereby supporting an earlier finding by Rajkumari⁸ *et al.* but contradicts the finding by Nnodim¹² whose study reported that over three-quarters of the students were upset at the beginning of dissection.

CONCLUSION

Cadaveric dissection is related with varied reactions. The students should have preparatory session which addresses various issues related to cadaveric dissection. Emotional issues during human dissection should not be neglected, but addressed repeatedly³⁰. The students should be advised to prepare mentally and emotionally

before entering the dissection room so that they are emotionally involved and stimulated³¹.

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