

VIEWS OF FIRST YEAR DENTAL STUDENTS ON HUMAN DISSECTIONS AND ANATOMY LEARNING

T.N. Hewapathirana, B.M.H.S.K. Bannehaka, D.D. Ihalagedara and C.D. Nanayakkara

Department of Basic Sciences, Faculty of Dental Sciences, University of Peradeniya

Introduction

Dissection of the human cadaver has been the most common form of learning anatomy since the Renaissance (Matachian *et al.*, 2004). Cadaver dissection and its value to anatomy learning is a topic of much interest to anatomists and students and many virtues have been described (Azis *et al.*, 2002). It is described as an experience providing a three-dimensional picture of the human body form (Yeager, 1996). The manual skills learnt in the dissecting room are essential in almost every branch of the medical profession. However, with the rapid expansion in medical knowledge such as new scientific information and the introduction of new technology in operative and diagnostic medicine during the last several decades, has created pressure to reduce the time spent in basic sciences, especially the detailed learning of anatomy. In the recent years, there is a worldwide move of anatomy-based teaching from dissection to prosection. Moreover, in recent years, there has been a concern that those who work on cadavers may have serious negative consequences. Many studies have documented that stress and anxiety is associated with cadaver dissection (Snelling *et al.*, 2003). The present study was carried out to determine the views of first year dental students towards cadaver dissection in anatomy.

Materials and Methods

The present study was conducted at the Division of Anatomy in the Faculty of Dental Sciences, University of Peradeniya. The subjects participated in the study were the first year dental students during the academic year 2009/2010. The students who were willing to participate in the study were recruited. Each student was explained the objectives of the study and two questionnaires were administered.

The first questionnaire was distributed at the end of the first anatomy dissection date and the second questionnaire was given at the end of the 1st semester. There was complete anonymity as no names or numbers were mentioned. The data collected were then analyzed.

Results

Out of 82 students only 78 (95%) completed the 1st questionnaire while 62 (80.5%) responded to the 2nd questionnaire. The mean age of the students was 21.5 year.

Chi-square tests revealed significant gender differences ($p < 0.05$) concerning most aspects of reactions to human cadaver dissection. For example female students showed higher levels of fear and stress, and reported stronger physical and behavioral reactions. Their views

regarding cadaver dissection are summarized in Table 1 – 5.

Table 01: Response towards emotional shock at the beginning (1; n=78) and at the end (2; n=66) of the course. (There were no responses from 37.9% for the question in the questionnaire 2)

	1		2	
	Yes	No	Yes	No
Feeling of emotional shock at initial exposure	33.3	66.7		
Gradual decrease in emotional shock			37.9	24.2

Table 02: Gender distribution of the samples participated in the study (1) the beginning and at the end (2) of the course

	1	2
Male	28	15
Female	50	51
Total	78	66

Table 03: Attitude towards dissection at the beginning (1; n=78) and at the end (2; n=66) of the course.

	1		2	
	Yes %	No %	Yes %	No %
Attitude Unpleasant	35.9	59.0	48.5	40.9
Frightening	17.9	73.0	27.3	59.1
Fear of infections	19.2	68.0	27.3	57.6
Interesting	71.2	21.8	63.6	27.3

Exiting	61.5	27.0	53.0	25.8
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Discussion

First year students experienced a variety of emotional reactions and mixed feelings when they encountered the human cadaver for the first time in the dissecting room.

In our study a majority of students expressed that the first visit to the dissecting room was exciting (64%) while the others expressed an opposite attitude. When male and female students were considered separately females found the dissecting room more exciting than males.

Most frequent physical symptoms expressed were faintishness (64%), nausea (10.3%), temporary loss of appetite (15.4%) and recurring images (10.3%). With the initial exposure of the dissecting room 42.2% had an emotional shock but the initial shock was decreased to 25% by the end of the 30th week. Even though the students felt emotional shock at the beginning of the dissection programme, the second questionnaire revealed that 90% of the students were of the opinion that the dissection is the best method of learning anatomy. Also, 81.8% felt that the dissections enhance the skill of thinking logically. However, 21.2% felt that dissections can be replaced by other teaching methods.

Table 04: Comparison between male and female students' attitudes at the beginning (1; n=78) and at the end (2; n=66) of the course. (Y=Yes, N=No)

	Total		1		Female		Total		2		Female	
	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
	1st visit exciting	64.1	34.6	53.6	46.4	70.0	28.0	73.4	26.6	60.0	40.0	77.5
Upset at the beginning	33.3	65.4	17.9	82.1	42.0	56.0	46.9	53.1	42.9	57.1	48.0	42.0

Table 05: Students' perception of dissections at the end of the course

	Yes	No
Dissections enhance the skill of thinking logically	81.8	9.1
Dissections is the best method for learning anatomy	90.9	3.0
Dissections can be replaced by other teaching methods	21.2	75.8

Conclusion

Majority of dental students expressed a positive attitude towards cadaver dissection. By the end of the semester, neutral and positive attitudes supervened among the respondents who expressed an initial negative reaction.

References

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