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Evaluations of anatomy education by Usak University Faculty of Dentistry 3rd grade students

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Abstract

The aim of this study was to determine the positive and negative aspects of anatomy education of 3rd grade students of the faculty of dentistry before graduation. The study was carried out with the questionnaire of 3rd grade students studying at Uşak University Faculty of Dentistry. 52 people participated in the study. Five-point Likert-type scale was used for the reliability of the questionnaire. Of the 52 students, 31 were female and 21 were male. The mean age was 21 years. 67.3% of the students who participated in the study stated that they liked the course when they first took the anatomy course, while 46.1% stated that they still liked the anatomy course. 63.4% of the participants stated that they understood the other courses more easily thanks to the terminology they learned in anatomy. Also; 88.4% of the students “4. and 5th grade should have an accelerated anatomy course”. We anticipate that these feedbacks from third year students of the faculty of dentistry who have studied anatomy in undergraduate education will contribute to anatomy education in dental faculties.

Keywords: Anatomy education, faculty of dentistry, feedback

Introduction

As an original medical unit, the faculty of dentistry was in general medical education until the last few centuries; later, it has formed disciplines and departments and has become an independent faculty. Education about basic medical sciences is given to students in dental faculties in the first years. One of the intensive courses in the basic medical sciences is the “human anatomy” course [1,2]. Human anatomy, which is the oldest medical science known, is defined as a branch of science that examines the shape, structure, location, neighbourhood and relationship of organs. Anatomy education is given to medical faculty, dentistry and health sciences students in the first years of their education and it forms the basis of medical terminology and clinical sciences [3-5].

Anatomy education given in the faculties of dentistry is in parallel with the curriculum of the medical faculties and is taught in two parts as theoretical and practical education. Anatomy practice courses, in which the three-dimensional structure of the human

body is introduced through cadaver, models, human anatomy atlas and anatomy education computer programs, are at least as important as theoretical anatomy courses [6-8].

Studies conducted about the anatomy education given in the faculty of dentistry include various evaluations and feedbacks. These feedbacks provide a positive change in anatomy education with developing and changing technology. This change requires the instructors teaching anatomy to be more equipped and to prepare a course content that will appeal to dentistry students more [1,2].

Feedback about anatomical education from dentistry students and medical students is included in the literature [2,8,9]. At the same time, there are studies on the comparison of anatomy education given in the faculties of dentistry in our country and anatomy education given abroad [1].

The aim of this study was to determine the positive and negative aspects of anatomy education given to third year students in the faculty of dentistry before graduation

Material and Methods

52 students studying in their third year at Uşak University Faculty of Dentistry constitute the universe of the study. No sample

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was chosen and the answers of the students who completed the questionnaire voluntarily were accepted as the data of our study.

Data collection tools

After the students signed a voluntary consent form, a data collection tool was used. As a result of the literature review related to the categories to be evaluated in the questionnaire, the students were asked about professional contributions and targets with the assessment of theoretical and practical anatomy courses the students received in their undergraduate program [2,8]. Age and gender of the students were also asked in the questionnaire. In terms of reliability of the feedback; the names of the students were not included, the researchers did not wait next to students after the questionnaires were distributed and 24 hours of thinking time was given to fill in the questionnaires. Five-point Likert-type scale was used in the scoring and the following items were included.

- Totally disagree
- Disagree
- Undecided
- Agree
- Totally agree

In order to make the results more understandable in the analysis, the “strongly disagree” and “disagree” responses were evaluated as “disagree”, while “undecided” response was evaluated as “undecided”, and the “agree” and “strongly agree” responses were evaluated as “agree”.

Ethical Considerations

In order to conduct the study, approval was obtained from the Non-Interventional Research Ethics Committee of Uşak University Faculty of Medicine with document numbered 167-08. Before the application of the questionnaires, a signed consent was obtained from the dean of Uşak University Faculty of Dentistry where

the research would be conducted. After the purpose of the study was explained to the students, “voluntary consent form” and questionnaires were distributed to the students who volunteered to participate in the study, and it was stated that it was not necessary to write names in the survey.

Results

Of the 52 students in the research group, 59.6% were female (n=31), 40.4% were male (n=21), and the average age was 21. All of the students were citizens of the Republic of Turkey.

Of the students who participated in the study; 68.6% stated that they liked the course when they first started taking anatomy, while 46.1% stated that they still loved anatomy”. 100% of the students stated that “they did not see anatomy as a waste of time in terms of their education” and 84.6% stated that the number and duration of courses were insufficient. A great majority of the participants stated that the Latin terminology they learned in anatomy course was useful both for learning the other courses and understanding the terminology used in the clinic (Table 1).

69.3% of the students responded with “agree” to “the necessity of anatomy department in dentistry faculties”. 63.5% of the students responded with “agree” to “Systematic anatomy will benefit me in my professional life”, while 25% responded with “disagree”. While 71% of the students responded with “agree” to “Topographic anatomy will benefit me in my professional life”, 17.3% responded with “disagree” (Table 2).

While 90.3% of the students think that “accelerated anatomy repetition course will be useful in the fourth and fifth years”, 88.2% responded with agree to “Clinical anatomy would be useful in Dental Specialization” (Table 3).

Table 1. Anatomy course overview and competence

Survey Questions	Disagree	Undecided	Agree
When I first started taking anatomy, I loved anatomy.	11.8%	19.6%	68.6%
I still love anatomy.	23.1%	30.8%	46.1%
I see anatomy as a waste of time for my education	100%	-	-
The number and duration of the anatomy courses were high.	90.3%	2%	7.7%
The number and duration of anatomy courses were sufficient	84.6%	13.5%	1.9%
Anatomy lessons were explained in relation to dentistry	55.8%	17.3%	26.9%
The Latin terms I learned in anatomy made it easy for me to understand other subjects	19%	17.5%	63.5%
The Latin terminology I learned in anatomy and the terminology used in the clinic were compatible.	17.4%	23%	59.6%

Table 2. Professional benefits of anatomy and subjects

Survey Questions	Disagree	Undecided	Agree
There should be a department of anatomy in the faculties of dentistry	9.6%	21.1%	69.3%
Systematic Anatomy course helped me to understand clinical courses	44.2%	23.1%	32.7%
I think that Systematic Anatomy course will help me in my professional life.	25%	11.5%	63.5%
Topographic (Regional) Anatomy course helped me to understand clinical courses	40.4%	23.1%	36.5%
I think that Topographic (Regional) Anatomy course will help me in my professional life.	17.3%	11.5%	71.2%
Head-Neck region anatomy helped me to understand clinical lessons	44.2%	15.4%	40.4%
Thorax region anatomy helped me to understand clinical lessons	76.9%	7.7%	15.4%
Abdominal region anatomy helped me to understand clinical lessons	86.3%	5.9%	7.8%
Anatomy of the upper extremity helped me to understand the clinical lessons	48%	30.8%	21.2%
Anatomy of the lower extremity helped me to understand the clinical lessons	67.3%	19.2%	13.5%
Digestive system anatomy helped me to understand clinical lessons	46.1%	21.2%	32.7%
Respiratory-Circulatory System Anatomy helped me to understand the clinical lessons	44.2%	17.3%	38.5%
Urogenital System Anatomy helped me to understand the clinical lessons	78.4%	9.8%	11.8%
Nervous System Anatomy helped me to understand the clinical lessons	40.4%	21.1%	34.6%
The Latin terms I learned in anatomy made it easy for me to understand other subjects	19%	17.5%	63.5%
The Latin terminology I learned in anatomy and the terminology used in the clinic were compatible.	17.4%	23%	59.6%

Table 3. Expectations about anatomy education

Expectations	Disagree	Undecided	Agree
There should be an accelerated anatomy repeat course in the fourth and fifth grades	2%	7.7%	90.3%
Clinical anatomy course would be useful in Specializing in Dental	5.9%	5.9%	88.2%

Discussion

Anatomy course has an important place in basic education of dentistry students. Student feedback given by the questionnaire is a form of evaluation showing the quality and deficiencies of the education applied, and it is also a method with high reliability and validity [10]. Quality and satisfaction in university education is created and increased by providing students with the learning conditions they need to learn and the materials they need [11]. Regular assessment of the trainings of students contributes to the improvement of the quality of education provided to them, to overcome the deficiencies identified and to develop new educational strategies that will contribute to them. Therefore, feedback from students is very important in achieving the goals of anatomy education [2].

The physician who graduates with a qualified anatomy education will get better results in physical examination and diagnosis. Therefore, a good anatomy education is needed in order to train qualified physicians, to perform correct diagnosis and correct surgical intervention [12]. The results of the present study support these findings, 63.5% of the students who participated in the study thought that they would benefit from systematic anatomy course and 71.2% thought that they would benefit from topographic

anatomy professionally. In addition, 69.3% of the participants stated that there should be an anatomy department in the faculties of dentistry regarding the importance of anatomy education.

In our study, it was concluded that the students understood the other vocational courses better and adapted more easily to other courses thanks to the terminology education given in anatomy education. In terms of questions asked as to the content of the course; students thought that subjects other than head and neck anatomy, nervous system anatomy and digestive system anatomy would not provide professional benefit. However, in Çay et al. [13]'s study, dentistry faculty members were asked this question and instructors stated that the subjects other than lower extremity anatomy and urogenital system anatomy are useful in their professional lives. In the present study, it was emphasized that anatomy education was not explained in relation to dentistry. In Çay et al. [13]'s study, similar answers were taken from faculty members who were graduated from different universities. We think that the reason why different answers were taken from students and dentists who have recently started the profession to the question whether anatomy course would provide professional benefit can be because anatomy education is not given in relation to dentistry. In their study, Pamay et al. [1] emphasized the importance of having anatomy department in dental faculties. In parallel with this study, 69.3% of the students

in our study stated that there should be a department of anatomy in dentistry faculties.

In Pamay et al. [1]'s study, the answer to the question of how many semesters anatomy should be taught in dentistry faculties was 1. However, in our study, students who gave feedback on expectations about anatomy education stated that anatomy education should not only be a basic course but there should also be an accelerated anatomy repetition course in the fourth and fifth years (90.3%) and clinical anatomy course would provide benefit (88,2%) while performing specialization in dentistry. These results are similar to the results of the study conducted by Çay et al. [13] with faculty members of dentistry faculty. We believe that the reason for this is the effect of recent DUS exam and that anatomy questions are asked in this exam.

Conclusions

In the literature review related to the subject of the study, not many studies were found similar to the questionnaire study conducted with the students of the faculty of dentistry. We tried to make comparisons with few studies found. In literature, feedback on anatomy education was generally provided with medical students [8, 9]. Therefore, we think that this study will provide a source of feedback for the literature. In addition, we anticipate that the feedback we receive from the participants will contribute to the anatomy education given during the undergraduate period in dentistry education.

Conflict of interest

The authors declare that there are no conflicts of interest.

Financial Disclosure

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Ethical approval

Before the study, permissions were obtained from local ethical committee.

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