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MEDICAL STUDENTS AND CADAVER DISSECTION

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ABSTRACT

Although medical students from all over the world mostly share similar feelings against human dissection, their social enviroment, country and religion may the cause of unexpected results. The impact of the dissection must be considered carefully in the education of a future doctor.

The results of an anonymous questionnaire distributed to 193 second-year medical students, just prior to entering their first dissection class, might give us satisfactory idea about their feeling and expectations.

Just prior to the cadaver laboratory 27.3% of the males and 54.2% of the females declared that they haven't seen a dead human being, while 68.2% of the males and 84.8% of the females haven't touched a dead person, yet. 36.4% of the males and 46.7% of the females found it harder to touch the cadaver than to look.90.9% of the males and 98.1% of the females declared that they don't have enough knowledge on dissection technics; while 59.6% of the students feel themselves ready for dissection.

Our results suggested us the need of instructions on death and dying; probable changes in the lecture programs; to be alert for unexpected anxiety of some students and to be more understanding and affectionate to the students.

Key Words: Medical students, cadaver dissection

ÖZET

TIP ÖĞRENCİLERİ VE KADAVRA AÇIMI

Her ne kadar dünya üzerindeki pek çok tıp fakültesi öğrencisi kadavra açımı konusunda diğerleriyle benzer duyguları paylaşıyor görünmekteyse de sosyal çevreleri, ülkeleri ve dinleri beklenmeyen sonuçların nedeni olabilmektedir.

İlk kadavra açımı uygulamasına girmeden hemen önce tıp fakültesi ikinci sınıf öğrencisi 193 kişiye dağıtılan isimsiz bir anketin, öğrencilerin kadavra ve kadavra uygulaması hakkındaki duyguları ve beklentileri hakkında yeterli bilgi ve fikir verebileceği düşünüldü.

Kadavra açımının hemen öncesinde erkek öğrencilerin :27.3'ü kız öğrencilerin %54.2'si daha önce hiç ölü bir insan görmemiş olduklarını; erkeklerin %68.2'si ve kızların %84.8'i ise hiç

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ölü bir insana dokunmadıklarını ifade etmişlerdir. Erker öğrencilerin %36.4'ü, kız öğrencilerin %46.7'si kadavraya dokunmayı kadavraya bakmaktan daha zor olarak nitelemişlerdir. Erkek öğrencilerin %90.9'u, kız öğrencilerin %98.1'i disseksiyon teknikleri konusunda yeterli bilgi sahibi değiliz derken; öğrencilerin %59.6'sı duygusal olarak kendilerini disseksiyona hazır hissettiklerini belirtmişlerdir.

Öğrencilerin kadavra ve kadavra açımı hakkındaki duygulanımları, kadavraya hazırlanabilmedeki beklentileri tablolar halinde verilmiştir.

Sonuçlarımız bize ölüm ve ölme konusunda öğrencileri daha fazla bilgilendirmemiz gerektiğini, ders programlarında buna uygun değişimlerin yapılması gerekliliğini, bazı öğrencilerde karşımıza çıkabilecek beklenmedik anksiyeteye karşı hazırlıklı bulunmamızı ve öğrencilere karşı daha anlayışlı ve şefkatli olmamız gerektiğini telkin etmektedir.

Anahtar Kelimeler: Tıp öğrencileri, kadavra açımı

INTRODUCTION

Understanding the attitudes of medical students has become an important component of research in medical education (1); their own views on how their location is being conducted ought to taken into account in cirriculum management (2).

There are few references as to how medical students feel about and cope with dissection of the human body, with some suggesting it as a relatively minör event while other regarding it as a more serious experience (3).

The impact of dissections on medical students goes far beyond the simple fact of learning anatomy. For most students this is the first confrontation with the irrevocable evidence of death (4, 5). Indeed, this is their first professional contact with human bodies (5), and dissecting it is an initiation into the role of doctor, which could be interpreted as cadaver-medical students' first patient (6, 7, 8).

The dissection of a human body, for many of these students, raises disturbing questions about life, death and dying (3, 5, 6, 9, 10). Traditionally, students have seldom been encouraged to voice these concerns; where medical education is relatively insensitive to the subject of death (4, 6).

This study aimed to investigate a group of students expectations, who had had no orientation program to the experience of human dissection, before their first human dissection class with particular emphasis on how they believed they could have been better prepared.

METHOD

An anonymous questionnaire was distributed to the 193 second-year medical students in 1992, just prior to entering their first dissection class. All of the students had studied osteology in their first year.

Table I. Which one do you think is harder, to look or to touch the cadaver?

reply	male(%)	female(%)	total(%)
touching	36.4	46.7	42.0
none of them	52.3	29.5	39.9
both of them	6.8	11.4	9.3
looking	3.4	9.5	6.7
no answers	1.1	2.9	2.1

Some open-ended questions were asked to obtain maximum information and to allow students express themselves better.

The questionnaire comprised questions of demographic data, their insight for future conditions, their attitudes and emotoins about cadaver and dissection.

The answers obtained in the open-ended questionnaire were grouped according to similarity. Statistical calculations were made by using Epi-Info 5 program.

Students returned the questionnaire within 40 minutes.

RESULTS

Students included in the study were 88 male and 105 female, ages ranging 17-22 with a mean of 18.6±0.9 years.

Just prior to the cadaver laboratory 27.3% of the males and 54.2% of the females declared that they haven't seen a dead human being, while 68.2% of the males and 84.8% of the females have't touched a dead person, yet.

While waiting to see the cadaver 78.5% of the males and 64.7% of the females feel interest; 4.5% of the males and 9.5% of the females are afraid; 4.5% of the males and 4.8% of the females have the fear of losing control; and 3.4% of the males and 1.9% of the females feel nothing.

36.4% of the males and 46.7% of the females say that touching the cadaver is harder, while 3.4% and 9.5% of them find it harder to look, respectively. Those who think it was hard to look and touch the cadaver were 3.4% of the males and 9.5% of the

Table II. Do you think it was/ or would be better to see a dead human previously?

reply	male(%)	female(%)	total(%)
no difference	52.3	34.3	42.5
better	43.1	45.7	40.4
I don't know	3.4	5.7	4.7
worst	2.3	0.9	1.6
get used to	-	1.9	1.0
no answers	8.0	11.4	9.8

Table III. What could be made to get prepared emotionally for the cadaver?

reply	male(%)	female(%)	total(%)
sharing of fears	34.1	50.5	43.0
detailed information on burials and corpses	18.2	19.0	18.7
more discussions on death	21.6	11.4	16.1
no answers	10.2	2.9	6.2
miscallaneous	13.6	13.3	13.5
no need to be prepared	2.3	1.0	1.6

females. Students' concerns about touching or looking at the cadaver are listed in Table I.

Responses to the question of the effects of having seen a human corpse prior to dissection are given in Table II. 52.3% of the males and 34.3% of the females think that there is no difference in seeing a dead body, while 34.1 and 45.7% of them think it was better, respectively.

90.9% of the males and 98.1% the females declared that they don't have enough knowledge on dissection technics, while 7.9% of the males and 1.9% of the females had some knowledge.

59.6% of all the students feel themselves ready for the dissection courses, while 31.1% did not. 2.6% of them were anxious. Responses to how to get prepared emotionally for the cadaver are given in Table III.

Table IV shows how the students get prepared for the cadaver courses, while Table V shows what has to be done to get prepared for the cadaver courses.

52.8% of the students accept the cadaver as their future patient, while 46.1% do not.

80.8% of the students say that they would act according to the lecture program; 15.9% of the males 8.6% of the females would do anything they want to.

48.2% of the students wanted to be with the anatomists while dissecting, 20.2% with their friends, 22.3% with anatomists and friends, 4.1% alone and 3.6% it did not matter.

Table IV. How did you prepare yourself for the cadaver?

reply	male(%)	female(%)	total(%)
talking to other students	28.04	35.2	32.1
talking to anatomy staff	21.6	27.6	24.9
written information	14.8	13.3	14.0
animal dissection	5.9	1.9	3.6
miscallaneous	26.4	16.1	20.7
no need to be prepared	-	5.7	3.1
no answers	3.4	-	1.6

Table V. What to be done to get prepared for the cadaver courses?

reply	male(%)	female(%)	total(%)
talking to anatomy staff	37.5	41.9	39.9.
animal dissection	20.5	19.0	19.7
written information	6.8	9.5	8.3
talking to other students	4.5	0.9	2.6
miscellaneous	23.0	21.8	25.5
no answers	3.4	0.9	2.1

DISCUSSION

59.6% of all the students they were adequately prepared emotionally before experiencing the dissection class. Horne et al. (3) found this as 91%, but also they stated that this preparedness proved to be technical rather than emotional. Only 36% of the Penney's (9) students considered themselves as adequately prepared emotionally.

Contrary to Horne et al.'s (3) findings, our students, first wish to get prepared for the cadaver, was talking to anatomy staff; and animal dissection as the second. Talking to other students was one of the last choices our students willed. Responses to the question of what they actually had done to get prepared was somewhat different. This time their friends were the first choice of information, while animal dissection was one of the last. We can comment on this that the students find it more practical to get in contact with their friends and anatomy staff, which is very important in stating healthy relationships. This is very well put forward in Horne et al.'s (3) study; after the experience, 47% of their students would have liked more preparation from anatomy staff. This also reflects that our students are not prone to get knowledge by their own experiences, which is no good for scientific tendencies.

57.2% of our students reported that they haven't seen a dead human before the dissection. This number was 81% in Penney's (9) study. There is a sharp difference between male and female responses to this question.

77.2% of the students haven't touched a dead human before, where Horne et al. (3) reported that 62% of their students had had previous contact with a dead human body. Again male-female difference could be seen very clearly. which could be interpreted as the reflection relatively passive position of females in the community.

Horne et al. (3) reported that prior experience with a dead human body, contrary to their staff expectations seemed to sensitize their students to the emotional aspectes of human cadaver dissection. About 40% of our students, whether who had seen and who had not seen a cadaver before, are agreed that it was or would be a positive event for them.

With respect to anticipating seeing a cadaver 72% of the students had feelings of interest, 7.3% had anxiety. This is an interesting result among Pennay's (9) 75% anxiety, 32% interest and 11% horror.

42% of the students find it harder to touch the cadaver while 6.7% to look. This result resembled Horne at el.'s (3) statement that their students were more disturbed by the prospect of handling cadavers than they were by the prospect of seeing them.

On the issue of getting emotionally prepared for the dissection courses a total 59. l% of our students wished to make discussions on death and the sharing of fears; while this number was 53% for Penney's (9) students. 187% our students reguested more facts on donors and burials, while it was 12% for Penney's (9). These were somehow similar proportions. More worse than Penny's (9) 82%, 94.8% of our students felt they did not have enough instruction on dissection techincs.

Students' thoughts about seeing the cadaver as their future patient was almost equal as accepting it as a patient. This might be due to their limited knowledge both on the cadaver and on the patient.

12% of the students wanted to have some kind of freedom while dissecting; where 80.8% were satisfied with the lecture program. Males were twice as much of females in the need of freedom in dissection courses. Only 4.1% of the students wanted to be alone while dissecting; 48.2% with the anatomists. It could be derived from the answers that students shoud not be allowed to dissect alone in the dissecting room. This fact is mentioned by Shalew & Nathan (5) within the factors that adds to the stress of dissection, together with exposure from the first day to the whole body; beginning dissections with the parts of the body that are emotionally difficult to dissect; disregard for the student's need to react by avoiding contact with the cadaver: all contributing to the use of more rigid defenses.

Students who learn to use rigid defensive attitudes in front of the cadaver might use the same attitudes to cope with their anxiety in front of dying patient. They will deny the aggressive aspects of some medical interventions, and remain defensively uninvolved in the emotional component of disease and of the dying process (5).

This fact puts forward the need for including instruction on death and dying for medical students also in our countriy, where than 90% of the American medical schools this is part of the medical curriculum even before 1980 (4).

An opportunity to discuss psychological difficulties and the issue of death and dying, is needed before and during the anatomy course (4,5).

The teaching team should be instructed they are prepared predict and recognise students, emotional responses at every stage of dissection and to handle them adequately (5).

The few students who eventually show persistent anxiety during dissection should be referred to a senior teacher, or in some cases more professional help may be indicated (5).

It could be recommended that by an orientation program, medical students might be provided an opportunity to see a cadaver prior to the first laboratory and by instructions on dissecting technics before being required to perform dissection (9).

This discussion may be rounded up by student's own comment on the relationship of the anatomy class to the overall process of becoming a physician: "It is as if the anatomy class is a ticket to the rest of training to become a physician" (10).

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