

The Relationship between Erciyes, Selçuk, and Akdeniz Medical School Third-Year Students' Learning Approaches and Their Non-attendance Attitude and Tendencies

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Abstract

Background: Non-attendance is an undesirable student behavior. Although some studies about the factors for non-attendance behavior have been carried out at medical schools, the learning approach of a student has not been studied and it can also be a factor for non-attendance. We aimed to assess the relationship between learning approaches and non-attendance attitude and tendency.

Methods: This is a correlational study. 644 students registered in three medical schools were enrolled. Data were collected during May 2015. "The Revised Two Factor Learning Approach Scale", "Non-attendance Attitude Scale" and "Non-attendance Tendency Scale" were used as data collection tools.

Results: Out of 478 studied students, 10.3% mentioned that they never missed theoretical classes and 71.3% mentioned that they never missed practical classes. Sleeplessness was the most common reason for non-attendance. 45.6% of all students thought that non-attendance affected student success. The students' mean score for deep learning was 29.5 ± 6.1 and for superficial learning was 30.5 ± 5.6 . The mean score for non-attendance attitude scale was 54.4 ± 12.8 and from non-attendance tendency scale was 90.5 ± 19.6 .

Conclusion: Learning approach is an effective factor for attendance. As deep learning approach is adopted, tendency for non-attendance decreases and the attitude becomes positive.

Keywords: LEARNING, STUDENTS, MEDICAL, ATTENDANCE, ATTITUDE

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Introduction

Education is process of changing or forming a desired behaviour (1). Educational institutions provide students the desired knowledge, skills and behaviors by scientific methods according to the general and particular objectives and basic principles of the educational system (2). One of the most important conditions for obtaining the requirements of formal education at schools is to ensure students' attendance. Achieving the goals of education depends on students' active

attendance. Non-attendance directs students into a process in which they are not active and the desirable behaviors in teaching and learning environments cannot be realized completely.

Non-attendance is the situation in which students studying at educational institutions attend classes at intervals or are absent totally (2). Attendance is compulsory in higher education and practices about attendance at medical schools in Turkey are described by regulations (3-7). Non-attendance is an undesirable student behavior and the effects of some factors on students' non-attendance at medical schools have been previously shown (8-15).

Learning approach is a tool which makes it easy for a student to learn by himself,

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determines the quality of learning, expresses the student's tendency depending on his intention while handling a study topic (searching for meaning, memorizing, being successful, etc) and also tries to find out how they learn and improves their learning processes (15, 16). Inventories have been developed to determine learning approach. Basically, two approaches are described as "Surface" and "Deep" approaches. Learning approaches are related to students' motivation for learning and their use of relevant strategies. Why learning is desired refers to "motivation", and how it is learnt refers to "strategy" (16). Surface approach is to prefer studying only to pass the exam with a minimum effort. This approach causes low quality learning results in learners. Students try to complete the topic or lesson under their responsibilities and overcome the fear of being unsuccessful. They accept the presented information and ideas without questioning. The aim of those who learn superficially is to fulfil their obligations for the lesson by memorizing. They follow the evaluation at the end of the lessons anxiously. Students generally have extrinsic motivation for learning. Deep approach, on the other hand, aims to understand the studied material. Students know that all these efforts are for their improvements and they do not tend to memorize everything presented in the lesson. Generated behaviors involve active integration of newly learnt knowledge with the old one or with the knowledge learnt from other materials. Learners have intrinsic motivation towards learning. High quality learning results involving the improvement of analytical skills emerges from deep learning (16).

Studying the students' non-attendance in relation to their learning approaches can be a guidance to support students to learn more appropriately and to decrease non-attendance to a minimum level. This study was conducted to determine the learning approaches of medical school students at the third year in three medical schools located in different areas and have similar programs and to establish

their non-attendance tendencies and attitudes according to their learning approaches.

Methods

A quantitative method was used for this correlational study. In the study a questionnaire form consisting of 22 questions was used. In the questionnaire, socio-demographic features of the students, their attendance at class, reasons for non-attendance, learning approaches, attendance attitudes and tendencies were evaluated. To determine learning approaches, the Turkish version of Bigg's Revised Two Factor Learning Approach Scale and to determine the nonattendance attitude and tendency, "Nonattendance Attitude Scale" and "Nonattendance Tendency Scale" were used (17, 18).

Learning Approaches Scale is composed of 20 items and has two sub-scales (deep and surface approach) composed of five items and two identifiers each. All of the items were written with a simple and easy to understand language and they question students' attitude towards learning and their learning styles. A student's deep approach score can be calculated by adding the scores of the questions 1,2,5,6,9,10, 13,14,17 and 18. Items 1,5,9,13 and 17 are determiners for deep motivation and items 2,6,10,14 and 18 are determiners for deep strategy. Surface approach is calculated by totalizing the scores of the questions 3,4,7,8,11,12,15,16,19 and 20. Items 3,7,11,15 and 19 are determiners for surface motivation and items 4,8,12,16 and 20 are determiners for surface strategy. Total scale score that can be obtained for each approach varies 10 to 50. Higher scores signify the positive attitude towards that approach. Cronbach alpha value was calculated as 0.772 for deep approach, and 0.800 for surface approach (18). In this study, Cronbach alpha values were calculated as 0.736 and 0.683 for deep and superficial approaches respectively.

Nonattendance Attitude Scale is a scale developed to determine the attitudes of

university students towards attendance. The scale is composed of 19 items and they are graded as “totally agree=5”, “agree=4”, “neutral=3”, “disagree=2” and “totally disagree=1”. Negative items (5,14,16,17,18 and 19) are reversely scored. The scale has a structure with 3 components. Items 1 to 6 display “necessity”; 7 to 13 “responsibility” and 14 to 19 “obligation” sub-dimensions. The students’ general attitude towards attendance is determined by totalizing all items. The total score obtained varies from 19 to 95. High scores represent positive attitude towards attendance, and low scores represent negative attitude (that is positive attitude towards non-attendance). The scale’s reliability level was calculated to be 0.81 for the necessity component, 0.84 for the responsibility component, 0.81 for the obligation component and 0.91 for the entire scale (17). Reliability level calculated in this study was 0.87 for the entire scale, 0.56 for the necessity component, 0.88 for the responsibility component and 0.81 for the obligation component.

Nonattendance Tendency Scale is a scale developed to determine non-attendance tendency of university students. In non-attendance tendency scale, there are no reverse items. Students are asked to define their absence level by choosing the most appropriate choice among the alternatives of “Never, Rarely, Sometimes, Usually, and Always”. The scale has a structure with 7 components. Items 1 to 4 display “course responsibility”, 5 to 10 “course content”, 11 to 14 “social activities”, 15 to 18 “unexpected situations”, 19 to 21 “having a low opinion of non-attendance”, 22 to 24 “transport problems” and items 25 to 28 display “course success” sub-dimensions. Non-attendance tendencies of the students can be determined by adding all the items as well as the tendency levels related to the sub-dimensions can be established by the scale. Total scores vary from 28 to 140. Higher scores reveal high tendency for non-attendance. Scale’s reliability level was calculated as 0.88, 0.78, 0.81, 0.78, 0.85, 0.86

and 0.74, respectively, for each sub-dimension. The reliability level of the entire scale has been reported to be 0.93 (17). In this study, the reliability level was calculated to be 0.93 for the entire scale and 0.82, 0.73, 0.88, 0.76, 0.92, 0.86, and 0.75, respectively, for each sub-dimension.

Data were collected during May 2015. 644 students registered in medical schools of Erciyes (n=282), Selçuk (n=156), and Akdeniz (n=206). Permission for the study was taken from Erciyes University Ethical Board. The aim of the questionnaire was both orally explained to students and written on the questionnaire forms. Participation in the study was voluntary. In order to evaluate students’ attendance status, two questions were asked: “Have you missed theoretical/practical classes?” and “During the last board, what was your approximate non-attendance percentage for theoretical/practical classes?”. For the first question, students chose one of the options as an answer from “no, never”, “yes, sometimes”, “yes, usually” and “yes, always”. For the second question, they chose one of the options for theoretical classes as “never”, “less than 10%”, “from 10% to 30%” and “31% and more”; for practical classes as “never”, “less than 10%”, “from 10% to 20%” and “21% and more”. In the analysis, options of “yes, usually” and “yes, always” were combined. Attendance to theoretical and practical classes was combined as to form two groups (for theoretical classes the ones who did not attend less than 30% and the ones who did not attend 31% and more; for practical classes the ones who did not attend less than 20% and the ones who did not attend 21% and more).

Statistical Analysis

Data’s fitting to normal distribution tests were evaluated by “Shapiro-Wilk Test”. Histogram and q-q plots were examined. Levene’s test was used to assess the variance homogeneity. Because the data did not fit parametrical test assumptions, “Mann-Whitney U” test was used to find out the difference between the two

groups; “Kruskal-Wallis Variance Analysis” was used to find out the difference among the groups that are more than two. When there was a difference in analysis results of more than two groups, “Mann-Whitney U” test was used in binary comparisons to find out the reasons of the difference. Cronbach’s Alpha values were calculated to prove the scales’

reliability. Chi-square analysis was used to assess whether there was a difference among the groups in terms of categorical variables or not. The relation between learning approach scores and non-attendance attitude and tendency scores was evaluated by Pearson’s correlation analysis. To determine the factors that affected the non-attendance tendency and

Table 1. The Distribution of Students’ Socio-demographic Features According to Their Universities

Socio-demographic Features	Akdeniz University (n=192)		Selcuk University (n=113)		Erciyes University (n=173)		Total (n=478)	
	N	%	N	%	N	%	N	%
Gender								
Male	109	56.8	51	45.1	90	52.0	250	52.3
Female	83	43.2	62	54.9	83	48.0	228	47.7
Nationality								
Turkish Citizen	183	95.3	101	89.4	162	93.6	446	93.3
Other	9	4.7	12	10.6	11	6.4	32	6.7
Types of Graduated High School (For Turkish Citizens)								
Science High School	71	37.0	30	26.5	61	35.3	162	33.9
Anatolian High School	109	56.8	56	49.6	91	52.6	256	53.6
Other	12	6.2	23	20.3	21	12.1	56	11.7
Not Answered	-	-	4	3.6	-	-	4	0.8
Mother’s educational status								
Left primary school	42	21.9	13	11.8	16	9.3	71	14.9
Graduated from primary school	53	27.6	32	29.1	55	32.0	140	29.2
Graduated from secondary school	23	12.0	12	10.9	17	9.9	52	10.9
Graduated from high school	23	12.0	27	24.5	36	20.9	86	18.0
Graduated from university	51	26.6	26	23.6	48	27.8	125	26.2
Not answered	-	-	3	0.1	1	0.1	4	0.8
Father’s educational status								
Left primary school	12	6.3	6	5.3	5	2.9	23	4.8
Graduated from primary school	50	26.0	16	14.2	16	9.2	82	17.2
Graduated from secondary school	17	8.9	6	5.3	16	9.2	39	8.2
Graduated from high school	48	25.0	22	19.5	39	22.5	109	22.8
Graduated from university	65	33.9	63	55.8	97	56.1	225	47.0
Accommodation								
With family	26	13.5	30	26.5	72	41.7	128	26.8
In Hostel	27	14.1	40	35.4	39	22.7	106	22.2
In Student house	136	70.8	40	35.4	55	32.0	231	48.3
Other	3	1.5	3	2.7	6	3.5	12	2.5
Not answered	-	-	-	-	1	0.1	1	0.2
Failing Semester								
Yes	53	27.6	20	17.7	36	20.8	109	22.8
No	139	72.4	93	82.3	137	79.2	369	77.2

%; column percentage

attitude, multi-linearity regression analysis was conducted. In models, sex, nationality, the place where students stay and considering non-attendance as a factor affecting success were treated as dummy variables. Analyses were conducted using R 3.2.2 and SPSS (version 15.0) software (19). Throughout the study, $P < 0.05$ was considered statistically significant.

Results

Out of 644 students from three medical schools, 567 completed the study. Eighty nine of the students did not answer all of the items in the scales and they were excluded. The questionnaire was completed by 478 students. The attendance rate was 74.2%. The mean age of the students who took part in the study was 21.2 ± 1.3 . Seven students were married (five from Selçuk and two from Erciyes University). The distribution of the students' socio-demographic features according to their universities is shown in Table 1. Eighty

four students mentioned a reason for failing the semester and only two of them (2.4 %) explained that they failed because of non-attendance.

When students were asked about their non-attendance rates for the previous council, 30.8% of them answered that they did not attend more than 30% of the theoretical classes, and 5.2% answered that they did not attend more than 20% of the practical classes. The attendance for theoretical/practical classes in general and the distribution of attendance rates (%) according to socio-demographic features is shown in Table 2.

45.6% of all students thought that non-attendance affects student success. 53.2% of the students from Selçuk, 52.1 % of the students from Akdeniz University, and 34.9% of the students from Erciyes medical school students thought that non-attendance affects student success (Chi-square=13.498, $P < 0.001$). Sleeplessness was the most common reason for non-attendance as stated by the students

Table 2. The distribution of attendance rates according to sociodemographic features (%)

	Theoretical Classes			Practical Classes		
	never missed	sometimes missed	usually/ always missed	never missed	sometimes missed	usually/ always missed
Socio-demographic Features						
Gender						
Male	9.6	52.0	38.4	72.4	24.8	2.8
Female	11.0	63.6	25.4	70.2	28.9	0.9
	chi square=9.222, P=0.010			chi square=3.190, P=0.203		
Nationality						
Turkish Citizen	9.4	57.2	33.4	70.2	27.8	2.0
Other	21.9	62.5	15.6	87.5	12.5	1.9
	chi square=7.589, P=0.022			chi square=4.512, P=0.105		
University						
Selçuk	7.1	64.6	28.3	57.5	38.1	4.4
Antalya	12.0	54.2	33.9	84.9	14.6	0.5
Erciyes	10.4	56.6	32.9	65.3	32.9	1.8
	chi square=3.777, P=0.437			chi square=33.126, P<0.001		
Accommodation						
With family	10.2	63.3	26.6	75.8	23.4	0.8
In Hostel	6.6	73.6	19.8	61.3	36.8	1.9
In Student house	12.6	46.8	40.7	73.2	24.7	2.2
Other	-	58.3	41.7	75.0	16.7	8.3
	chi square=25.750, p<0.001			chi square=10.874, p=0.092		
Total	10.3	57.5	32.2	71.3	26.8	1.9

(Table 3).

When the students' learning approaches were evaluated, their mean scores related to the deep learning approach was 29.5 ± 6.1 , and the related score for surface learning was 30.5 ± 5.6 . Their points from deep motivation, deep strategy, surface motivation and surface strategy were calculated respectively as follows: 14.8 ± 3.5 , 14.8 ± 3.6 , 14.6 ± 3.8 , and 15.8 ± 3.2 . The distribution of students' learning approaches scores with respect to their socio-demographic features and medical schools is shown in Tables 4 and 5.

The mean score students got from non-attendance attitude scale was 54.4 ± 12.8 (min: 23, max: 91); the mean score they got from non-attendance tendency scale was 90.5 ± 19.6 (min: 28, max: 128) (Table 6). The results of regression analysis thought to affect the non-attendance tendency and attitude scores is shown in Table 7.

Discussion

Non-attendance of students isn't a new fact (20). We have been confronting this as a

Table 3. The distribution of the first five reasons which may cause non-attendance of medical school students

Reasons	Number	%
Sleeplessness	121	25.3
Poor teaching of the instructor	107	22.4
Illness	78	16.3
The efficiency of studying at home rather than coming to lesson	71	14.9
The topic's being non-attractive / boring	66	13.8

The percentages were collected from 478 students.

Table 4. The Learning Approaches of Students According to Sociodemographic Features

Socodemographic features			Median	Min-max	%25p-%75p	P
Sex	Deep approach	Male	30.0	10.0-50.0	24.0-35.0	0.771
		Female	31.0	10.0-46.0	25.25-34.0	
	Surface approach	Male	30.0	11.0-45.0	27.0-35.0	0.070
		Female	30.0	10.-44.0	27.0-34.0	
Nationality	Deep approach	Turkish citizen	30.0	10.0-50.0	25.0-34.0	0.028
		Other	31.5	20.0-46.0	30.25-35.0	
	Surface approach	Turkish citizen	30.0	10.0-44.0	27.0-34.0	0.337
		Other	28.5	14.0-45.0	27.25-33.75	
Types of Graduated High School	Deep approach	Science High School	30.0	10.0-44.0	24.0-34.0	0.224
		Anatolian High School	30.0	14.0-50.0	26.0-34.75	
		Other	30.0	14.0-46.0	22.25-33.0	
	Surface approach	Science High School	31.0	10.0-45.0	26.0-34.0	0.523
		Anatolian High School	30.0	11.0-44.0	28.0-35.0	
		Other	30.0	14.0-42.0	24.25-35.0	
Faling semester	Deep approach	Yes	30.0	14.0-46.0	24.0-35.0	0.408
		No	30.0	10.0-50.0	26.0-34.0	
	Surface approach	Yes	33.0	14.0-45.0	28.0-36.0	0.001
		No	30.0	10.0-44.0	26.0-34.0	

Table 5. The Learning Approaches of Students According to Their Faculties

	Faculty	n	Median	Min-max	25%p-75%p	P
Deep approach	Selçuk	113	29.0a	14.0-50.0	24.0-33.0	0.049
	Antalya	192	32.0b	10.0-43.0	25.0-35.0	
	Erciyes	173	30.0ab	10.0-44.0	25.0-33.0	
Deep motive	Selçuk	113	15.0	6.0-25.0	12.5-17.0	0.377
	Antalya	192	16.0	5.0-22.0	13.0-17.0	
	Erciyes	173	15.0	5.0-23.0	12.5-17.0	
Deep strategy	Selçuk	113	14.0a	5.0-25.0	12.0-17.0	0.001
	Antalya	192	15.5b	5.0-22.0	14.0-18.0	
	Erciyes	173	15.0ac	5.0-22.0	12.0-17.0	
Surface approach	Selçuk	113	30.0	14.0-43.0	26.0-35.5	0.240
	Antalya	192	30.0	11.0-42.0	29.0-34.0	
	Erciyes	173	30.0	10.0-45.0	26.0-34.0	
Surface motive	Selçuk	113	15.0 ab	5.0-22.0	12.0-17.0	0.023
	Antalya	192	16.0 b	5.0-22.0	12.0-18.0	
	Erciyes	173	15.0 a	5.0-24.0	11.0-16.0	
Surface strategy	Selçuk	113	16.0	9.0-25.0	14.0-18.5	0.677
	Antalya	192	16.0	6.0-22.0	14.0-18.0	
	Erciyes	173	16.0	5.0-23.0	13.0-18.0	

In post hoc comparisons the same letters show similarities among groups, different letters show differences among groups.

Table 6. The distribution of students' points they got from non-attendance attitude and tendency scales according to medical faculties they study

	Faculty	n	Median	Min-max	25%p-75%p	P
Non-attendance attitude scale	Selçuk	113	55.0	26.0-89.0	48.0-64.0	0.574
	Antalya	192	56.0	23.0-91.0	45.0-63.0	
	Erciyes	173	54.0	23.0-89.0	44.5-64.0	
Non-attendance tendency scale	Selçuk	113	84.0a	37.0-116.0	73.5-95.0	<0.001
	Antalya	192	96.0b	46.0-137.0	78.25-104.0	
	Erciyes	173	91.0c	28.0-137.0	80.0-103.0	

In post hoc comparisons the same letters show similarities among groups, different letters show differences among groups.

general problem for many years (14). It is stated in various studies that this situations is also going on nowadays and it is a source of anxiety, especially in medical education (9, 11). Student attendance at medical training is accepted as an inseparable part of career development and as an evidence of professionalism (21). Interaction between faculty members and students, the student's observation of the faculty members and seeing them as role model in one to one and class discussions is very important. There are very few studies on the attendance of students at higher education in our country, especially on medical school students (17, 18,

22). We found that at three medical schools with many students, the students do not attend theoretical classes. 30% of the students stated that they were absent from the theoretical classes. Applications of these three faculties on student attendance are defined by instructions and it is stated that the students who are absentees for over 30% of the theoretical classes and for over 20% of practice classes will fail because of non-attendance. This finding shows that the medical schools having high student numbers have difficulty in following the student attendance at theoretical classes. Another finding supporting that the faculties

Table 7. Multiple linear regression analysis including the factors which are thought to affect the points of non-attendance tendency and attitude

Variance	b _i	S(b _i)	BETA	t	P
Non-attendance tendency					
Constant	73.879	6.542	-	11.293	<0.001
Sex	-5.603	1.618	-0.143	-3.462	0.001
Nationality	-11.908	3.241	-0.153	-3.668	<0.001
Accommodation	5.793	1.860	0.130	3.114	0.002
Non-attendance effect	-7.333	1.510	-0.202	-4.858	<0.001
Deep approach	-0.359	0.136	-0.112	-2.648	0.008
Surface approach	0.977	0.142	0.287	6.896	<0.001
s=17.441; adj.R ² =0.212; (F=22.114; P<0.001)					
Non-attendance attitude					
Constant	36.857	3.823	-	9.641	<0.001
Sex	3.068	0.965	0.120	3.180	0.002
Nationality	5.677	1.921	0.112	2.955	0.003
Non-attendance effect	9.030	0.902	0.382	10.011	<0.001
Deep approach	0.630	0.081	0.303	7.796	<0.001
Surface approach	-0.231	0.085	-0.105	-2.738	0.006
s=10.427; adj.R ² =0.333; (F=48.128; P<0.001)					

Sex(0:male, 1:female), nationality(0: TR citizen, 1:foreign), accommodation(0:with family, 1:without family), the idea that non-attendance has an effect on success(0:no, 1: yes) adj.R²:adjusted R².

have difficulty in following attendance is that non-attendance is seen at very low ratios as reason of students' failure. On the other hand, attendance ratio for practice classes is found high at all faculties. Students are grouped at the practice classes and the number of students at practice classes is lower than the number of students at theoretical classes at the medical schools the study carried. This makes following the attendance of the students easier. However, it is thought that the students' attendance tendency to the practical classes which the students are participants may be higher. In the literature, Romer showed that the attendance in less crowded classes is better (23).

Although it was not evaluated in this study, previous studies show that with the increase of the usability of technological resources, many pre-clinic medical students are tended towards different resources which they can direct their own learning instead of education in crowded classrooms and are absent from theoretical class (24). In our study, believing that instead of coming to class studying

at home is more effective is a reason we encountered. The medical schools in our country should consider this reality and should adopt developing different education methods and education strategies providing more permanent learning as a principle. A qualitative study in our country shows that students believe that attending classes in which the subjects are not discussed and only the slides are read is a waste of time (22).

But in many articles in the literature it is stated that non-attendance can cause insufficient learning and is an important factor effecting academic performance (8, 11, 14, 25-27). However, in our study more than half of the students though that non-attendance was not a situation that affects the student success. This ratio was over 50% at all medical schools. It is determined that 59.9% of the medical faculty students think that attendance affects the academic success (18). It is determined that university students do not consider non-attendance as a reason for failure (22). The idea that attendance affects academic success

is a factor that would affect attendance. It is thought that the trainers encouraging the students to develop positive attitude towards the importance of attending the classes and the effect of success will be a factor in avoiding non-attendance.

It is shown that although the dimension and levels changes, the stated reasons for non-attendance are similar (9). In our study, it is shown that besides the reasons like sleeplessness, illness, factors related to instructor and topics take place near the top among the situations that can cause non-attendance of medical faculty student. At a study on students studying at medical departments, it is shown that the most frequent reasons of non-attendance to theoretical classes is sleeplessness, illness, preparation for exams and bad weather conditions (18). It is thought that stating sleeplessness as the first reason is indicator for the intense course load at medical faculties and for the students studying late hours. But this can also be the indicator of not planning the time effectively. Planning the course hours may decrease the non-attendance rates. Moreover, giving information about time management to the medical faculty students may be useful. Quality of the presentation and characteristics of the instructor has been indicated as a factor effecting attendance (11, 18, 20, 28). It is a truth that most of the students can only attend theoretical classes if they perceive "value" (20). Value perceptions of the students are mostly based on the effectiveness of the training process and competence of the instructor. It is also important to encourage student feedbacks for increasing the quality of the training materials and for developing education technologies of the instructors (11). Personal attitude for education and motivation are key factors for student non-attendance. Loyalty to education is seen as an important factor regarding non-attendance level (14). When non-attendance attitude and tendency are examined in our study, it is seen that students' attitudes towards attendance is not so positive and they have tendency to non-attendance

(Table 6). Non-attendance tendencies of student are different between universities and it is determined that the students at Antalya have the highest non-attendance tendency point. It may depend on the characteristics of the region the university is, on having more social opportunities on the basis of city than the cities the other universities are in. But although the tendencies are high, there is not a difference between the attitudes of students towards attendance between the universities. It is known that quality and quantity of learning is determined by the learning approach that the students adopt (18). It is shown that the doctors following deep learning approach in medical education are more likely benefit from life-long learning and their tendency to go on academic education after graduation is more than the surface learners (29). In this study, students' learning approaches were evaluated by Biggs' Revised Two Factor Learning Approaches Scale. In our study surface learning approach points were higher than some other studies (29-31). It shows us that our students prefer studying for exam; they accept the information and ideas given without asking question, their aim is to fulfil their course obligations by memorizing the knowledge. This will cause them to have difficulty in using their former knowledge while solving real life problems in the future.

When the socio-demographic features of the students' learning approaches were examined, we found that there were some differences between some characteristics of the students. Deep learning approach scores of foreign students were higher and surface learning approach scores of the students who failed the semester were higher. Studies in which the students got good marks in the exams were mostly earned the students using deep learning approach (9). There was no difference with respect to sex and high school graduated. While it is found in many studies that most of the male students prefer surface learning approach (15, 32, 33), in one study, similar to our study, it is found that there is no difference

(34). There is also difference between learning approaches of students between faculties. Learning environment is an important variable in students' whether with deep or surface tendencies. Whereas deep learning approach is related to the student-centered learning environment giving opportunity to configure knowledge, surface learning approach is related to a traditional learning environment where the student is passive (32, 35). There is more learning environment that is moving the student to the center in the first three years in Antalya medical school. So this may cause these students to use deep strategies more. There is no program based on the problem at Erciyes University in the first three years. In another study carried in our country on three medical faculties having hybrid, integrated and problem-based programs, it was shown that the students of thee medical faculty that had student-centered problem-based programs used deep approaches more (33).

When various factors thought to have effect on non-attendance attitude and tendency are evaluated, it was seen that male students, T.R. citizens, the ones not living with their families, the ones who think that non-attendance has no effect on success tend towards non-attendance more. Their attitudes regarding attendance are found to be more negative. There are many studies showing that female students are less non-attendant than male ones (14, 18, 25, 27, 36). Moreover, an important finding of this study was that learning approaches were effective factors of attendance. As the deep learning approach is adopted, tendency towards non-attendance decreases and the attitude becomes positive. As surface learning approach is adopted non-attendance tendency increases and attitude towards attendance become negative.

Conclusion

An effective control mechanism should be provided to follow the attendance at universities. As learning approaches are

effective factors of attendance, education programs should be planned in a way that the medical school students prefer deep learning approach. A maximum effort for changing the students' thought that non-attendance does not have an effect on success must be shown.

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Conflict of Interest

The author declares no conflict of interest.

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