

The Relationship between Medical Students' Time Management Skills and Academic Achievement

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ABSTRACT The present study was conducted to investigate the relationship between medical students' time management skills and their academic achievement. Within the scope of the research, when medical students' time management behaviors were evaluated by gender, female students were found to get a higher score than male students. In the view of students' time management skills by place of residence variable; it was revealed that the scores of the students living in state residence halls were higher than those of others. Finally, a positive correlation was detected between medical students' time management scores and performance ratings implying that there is a significant relationship between students' time management skills and their academic achievement. Based on the results of the research conducted on medical students, the students can be said to score moderately on time management. In addition, female students were demonstrated to be more successful than male students on time management.

INTRODUCTION

The concept of time has been widely discussed throughout history, and it has been expressed in different ways that time is of vital importance for all beings in the universe. Although, time is the same for everybody, actually, time cannot be borrowed or lent; time cannot be saved or changed and it can only be used. Having this along with similar other features, time is vital for individuals and organizations. In view of the literature, it is clear that the concept of time has been defined as an abstract and important value in which events flow spontaneously, and which all beings in the universe own equally (McDougle 1997; Kidman 2012; Turkmén 1999; Keenan 1996; Karakose, 2014; Smith 1998). Time management concept appeared in Denmark as an educational tool to help better organization of time, and spread to all over the world from there. Nowadays, however, it has become one of the most important elements of individual and corporate success, especially in professional work life (Koch 1998). Some authors have also likened it to human life, and argued that managing time is actually managing life. Besides, time is unmanageable in reality; however, individuals can manage activities in their lives (Dobbins and Pettman 1998).

In descriptions made on time management, the opinion that efficient use of time is necessary for an individual or organization has gained importance (Mackenzie 1997). In this context,

time management has been referred to as completion of specific tasks in specific time periods to achieve pre-determined goals (Tutar 2000; Francis-Smythe and Robertson 1999; Mancini 2003; Karakose 2007; Eliopoulos 1984). However, specific knowledge, skills and abilities are required to manage time in a conscious way. Additionally, effective time management provides an individual with the opportunity to devote more time to his/her family and relatives, and enjoy life (Ulusoy 1996; Silber 1998; Efil 2007; Karakose and Kocabas 2009).

The purpose of time management is to increase the nature of activities to be carried out within a limited period of time. Many of the problems faced by students in the learning process are due to their failure to effectively use the time allocated to them. Previous research has revealed that excessive intensity of courses negatively affect productivity. In this context, it becomes inevitable for medical students, who are forced to face an intensive education curriculum, to use time effectively. To achieve success in the process of education, medical students should set goals about their education and plan accordingly for academic achievement. Therefore, medical students have to follow course schedules, prepare for exams in a systematic way and use the time well for other activities.

In the light of these reasons, the purpose of this study was to establish the relationship between medical students' time management skills and their academic achievement. Accordingly,

the problem of this research is “How is the medical students’ time management behaviors?” and “Is there any relationship between medical students’ time management skills and their academic achievement?” The present study is expected to determine the effects of medical students’ time management skills on their academic achievement and in this context, guide students on how they can use their free time more effectively.

MATERIAL AND METHODS

In the study, a survey based descriptive scanning model was used. The research based descriptive scanning model provides a significant contribution to understanding the information. It is known as descriptive research is to describe the current situation. Through this perspective, descriptive research is an objective approach (Balci 2001; Karasar 1999; Gay 1987).

The population of this study consists of the medical students in faculty of medicine. The sample is not selected for the research and it was conducted on the entire population. Time management questionnaire has been implemented all the students in the classes. In this context, the survey forms were distributed to a total of 153 students however the forms of 142 (93%) of them were taken and evaluated for statistical processing. A time management questionnaire developed by Erdem et al. (2005) was used to collect data in the study. The items of the questionnaire are assessing time-management behavior. For each item scoring is determined such that responses indicating predefined “good” time management practices are given 5 points while those at the other end of the scale are scored as 1 point. In the questionnaire, students stated to what extent they agree or disagree with

each statement using a 5-point Likert-type scale. The score ranges from the questionnaire are as follows: (1= never “1.00-1.79=low score”, 2= occasionally “1.80-2.59=low score”, 3= frequently “2.60-3.39=moderate score”, 4= very often “3.40-4.19=moderate score”, 5= always “4.20-5.00=high score”).

The researcher used the scores of final examinations (subject committee) given at the end of a year in the comparisons. The committee exams related to each other courses. The time of committee will vary according to the class. In general, the average varies between 4-6 weeks. “SPSS” (Statistical package for social sciences) software package was used to analyze data and statistical processes, including significance test, standard deviation and Tukey’s-b test were performed. To estimate the reliability of the questionnaire, consisting of 19 items, Cronbach’s alpha internal consistency coefficient was calculated and the total reliability coefficient was found Alpha= .88.

RESULTS

Medical students’ time management behaviors were compared by gender and presented in Table 1. In this context, it was determined that female students’ scores were higher than male students. This difference was found to be statistically significant [$t=2.91$, $p < .05$]. Based on this data, it can be concluded that female students are more successful than male students in time management. Similarly, the impact of students’ time management skills on academic achievement in the study by Demirtas and Ozer (2007), female students scored higher than boys. However, in another study about time manage-

Table 1: Distribution of students' time management scores by variables

Variables		<i>n</i>	<i>x</i>	<i>sd</i>	<i>F/t</i>	<i>p</i>
<i>Gender</i>	Female	58	3.98	0.46	2.91	0.00*
	Male	84	3.22	0.40		
<i>Place of Residence</i>	Away from family	70	3.09	0.36	4.79	0.02*
	With family	18	3.60	0.43		
	State residence hall	33	3.77	0.45		
	Private residence hall	21	3.01	0.34		
<i>Year of Study</i>	1 st year	47	2.98	0.32	1.38	0.32
	2 nd year	41	3.01	0.33		
	3 rd year	29	3.97	0.46		
	4 th year	25	3.76	0.45		
	Total	142	3.44	0.40		

[* $p < .05$ significant]

ment by Erdul (2005), the girl students scored higher than men in time management skills.

Students' opinions regarding use of time were compared by place of residence variable, and as a result of the analysis, a statistical difference was identified between the student's opinions [$F=4.79, p<.05$]. As a result of Tukey's-b test, such difference was discovered to be arising from the fact that the scores of the students living in state residence halls were higher than those of the others.

Results of analysis related to students' perceptions about the use of time by year of study are shown in Table 1. However, no statistically significant difference was observed between students' opinions by year of study [$t=1.38, p>.05$]. When the scores regarding use of time of participants in different years of study are considered, the students can be said to be at moderate level [$\bar{X}=2.98, 3.01, 3.97, 3.76$] on time management.

Distribution of medical students' time management scores by some selected variables are presented in Table 2. Accordingly, students' opinions in terms of time management behaviors do not differ statistically by gender [$t=5.96, p>.05$], place of residence [$F=5.77, p>.05$] and year of study [$t=.79, p>.05$]. In the light of this data, students' achievement scores can be said to be at good level [$\bar{X}=74.24$].

As seen in Table 3, the medical students' opinions regarding the use of time were analyzed and a statistically significant difference [$F=4.68, p<.05$] was found. As a result of Tukey's-b test, it was determined that this difference was due to the fact that time management scores of students whose performance rating is 49 or less are lower than those of other groups. Based on the above; time management

Table 3: Distribution of time management scores by performance ratings

Performance ratings	n	x	sd	F/t	p
<49	3	2.93	0.43	4.68	0.00*
50 - 64	15	3.17	0.40		
65 - 79	46	3.01	0.43		
80 +	78	3.28	0.37		
Total	142	3.10	0.41		

[*p < .05 significant]

scores can be said to be varying by students' performance ratings. As can be observed from the above data, the group with the highest performance rating also scored high in time management. George et al. (2008) found that time management significantly predicted academic success.

However, when the relationship between medical students' time management scores and non-classified performance ratings is measured by "Pearson Correlation Coefficient", a positive and significant relationship was discovered between time management score and performance rating ($r=0.771, p=0.00$). If the correlation coefficient is to "-1" or "+1", there is a linear relationship between two variables. If the correlation coefficient is equal to "0", there is not any relationship between two variables. Statisticians explain the correlation coefficient as follows (George et al. 2008; Cohen 1988; Miles and Banyard 2007): "Descriptive coefficient" is twice the "correlation coefficient". It is indicated with R2. Accordingly, if $r=0.771$, it would be $R2=0.59$. According to this result; students' time management skills are effective on 59 percent of students' academic success. Thus, other variables are effective on 41 percent of students' academ-

Table 2: Distribution of students' performance ratings by variables

Variables		n	x	sd	F/t	p
Gender	Female	58	78.46	11.57	5.96	0.21
	Male	84	71.05	12.68		
Place of Residence	Away from family	70	72.81	11.37	5.77	0.44
	With family	18	74.60	11.03		
	State residence hall	33	76.52	10.99		
	Private residence hall	21	71.06	11.52		
Year of Study	1 st year	47	72.17	13.80	0.79	0.27
	2 nd year	41	73.07	13.97		
	3 rd year	29	74.01	11.20		
	4 th year	25	78.60	11.53		
	Total	142	74.24	11.97		

[*p < .05 significant]

ic achievement. All these results suggest that there is a significant relationship between students' time management skills and their academic achievement. Similarly the researchers emphasized that there was a positive correlation between time management skills and academic achievement in the related literature (Cohen 1988).

DISCUSSION

Britton and Tesser (1991) expressed that 67 percent of undergraduate students identified time management as their most pressing problem. Without any doubt, there are many factors that can influence the academic performance of the students such as students' morale and motivation, requests and expectations, attendance, stress, and socioeconomic status. Time management is also effective on the academic achievement of them. If the students make a good plan related to their own life and this planning will have a positive effect their academic success (Misra and McKean 2000; Macan 1994). However, time management requires a functional planning so that individuals become successful and productive in both private life and work life. In a study by Britton and Tesser (1991), conducted on university students, they demonstrated that education on time management positively affect academic achievement. The researches on time management (Basak et al. 2008; Mora and Ticlau 2012; Woolfolk and Woolfolk 1986; Orpen 1993) show that the activities related to time management such as reading books and training are effective in managing time better. The main purpose of using time effectively is to increase the quality of activities we plan to perform in a limited period of time. In this context, the students should develop an awareness of and acquire skills on efficient use of time to improve quality of life and academic achievement. In studies conducted on this issue, students using time effectively have been reported to have high academic achievement (Misra and McKean 1991; Britton and Tesser 1991; Macan 1990). Based on the results of this research, conducted on medical students, the students can be said to score mid-level on time management [$\bar{X}=3.10-3.44$]. The results of the researches demonstrate that the positive relationship between students' time management skills and academic achievement (Basak et al. 2008; Androniceanu 2014; Andic 2009).

Within this study, female students were found to be more successful than male students on time management. In a study in relation to time management and academic achievement by Macan et al. (1990) female students scored higher than men in terms of time management skills. In a study conducted by Trueman and Hartley (1996), on university students revealed that female students in particular reported considerably better time management skills than male students. Besides, in a research by Eldeleklioglu (2008), the researcher reached similar findings. However, it was determined that the students living in state residence halls manage time better than others. Based on this data, improvement of the conditions in places where students reside can be said to increase success in courses. However, there is no one right strategy to manage time effectively. High motivation is required for the performance of students. Students can motivate themselves about how to use time.

As a result of the present research, it was identified that medical students who had high performance ratings in courses also had high time management scores. In a study by Macan (1994), efficient use of time was discovered to positively influence students' success in courses. Similarly, as a result of this study, a significant relationship was identified between medical students' time management scores and their academic achievement, and students who use their time well were found to be more successful in their courses. This conclusion is consistent with the findings of research conducted by Basak et al. (2008). They concluded that there is a significant relationship between students' time planning and their academic achievement, and that the students who use time well are more successful in their courses.

CONCLUSION

In conclusion, the issue of time management has a vital importance for individuals and organizations, and it is one of the most important keys to success. It is important that students use their time carefully and consciously so that they achieve success both in their private life and in their courses. In this context, the students of the faculty of medicine are responsible for very hard and intensive training program. Therefore, medical students make use their time effectively. If the students manage their time effectively their academic success will increase.

Therefore, helping all students develop an awareness of and acquire skills on time management would improve their academic achievement and quality of life. For this purpose, students must read a variety of books in relation to time management and they must attend seminars and training programs for developing time management skills.

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