

Investigating Time Management habits and Its Related Factors among Medical Sciences Faculty Students

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Abstract

Background: Time Management is a set of principles, practices, skill, and systems that work together to assist in getting more value out of one's time. For faculty students; it is an essential issue as is associated with improving their performance. **Aim of the study:** To investigate the time management habits and its related factors among medical sciences faculty students **Subject and method:** A cross-sectional study was carried out at a private Faculty for girls at Kingdom of Saudi Arabia, all students (190 female students) enrolled in the academic year 2018-2019 from different specialties were investigated about time management habits. **Tool:** A self-administered questionnaire which consisted of two sections was used; the first section included items about age, specialty and the GPA while the second section included 23 items about time management behaviors. **Results:** Students studying at the Clinical Laboratory department scored the highest while students studying at Emergency and Radiology department scored the least regarding time management skills with no significant difference. Regarding "time management skills"; 82.1% of students had good scores 75% and more, while 5.8% of them had poor score <60% which indicated poor time management skills. Significant relation was found between good time management skills and scholastic achievement. **Conclusion:** There is a strong significance between time management skills and academic performance **Recommendations:** Effective time management skills should be taught to under graduate students; teachers should incorporate time management concepts and applications in their classes. Trainings and seminars on time management skills are highly encouraged.

Key Words: Time management; Investigation; Behavior; students; Assessment

Introduction

Time is regarded as an indefinitely divisible and essential issue. It is the only asset that cannot be changed, bought or stored. The secret to achieving success in life is effectively managing this resource that everyone possesses equally and paying strong emphasis to planning (MacanT,etal.,2000). It is vital with great effect on individual's performance and achievements. It has always been recommended to start practicing time management from the early student life (Valle A,etal., 2016). Time management is recognized as a form of self-management with a clear emphasis on time in understanding what activities to do and how to do them more efficiently. It has also been associated with low anxiety and greater academic achievement in students. (Jenaabadi H, Nastiezaie N and Jalalzai S., 2016).

Good time management helps a person to do more work in less time which leads to more free time. Therefore, it helps the individual to learn and focus without stress and leads to

more career success (Mercanlioglu C, 2010 and Oyuga PA etal.,2016). For students to enhance managing their courses and achieve learning objectives; time management behaviors or skills should be maintained to develop the positive academic achievement as there is a clear link between students' time management behaviors and GPA. A study conducted among students of diagnostic radiology technology department at King Abdul-Aziz University to find the impact of time management on the academic performance, found that students strongly believed that their academic performance decreased due to miss planning and poor time management (Alyami A et al.,2021). Also (Scherer S, Talley C.P, and Fife J.E., 2017) found that a student's time perspectives are effective predictors of academic outcomes same as poor time management approaches.

Many studies linked time management to academic achievement, as (Kearns H and Gardiner M.,2007,SevariK and KandyM .,2011 , KausharM.,2013 ,

AdukeA.,2015) who stated that proper time management is positively correlated to better academic performance. (Indreica ESetal.,2011) studied the influence of effective time management on students' academic performance in terms of Grade Point Average (GPA) and recorded that effective management programs increase the GPA and hence concluded that successful students are good time managers. Using the students' GPA as measure for academic performance is a good indicator and this is demonstrated by (Jalagat R.,2016) who recommended the use of GPA as a measure of student academic performance.

One of the university's missions is to prepare the appropriate conditions for students to gain awareness about time management skills and support them through this. Given the importance of this assist and lack of knowledge about the factors affecting time management skills among university students; the present study aimed to explore and analyze these factors. The results of the present study are aimed to be a step taken to promote time management behaviors among students and consequently to enhance scholastic achievement.

Significance of the study:

Time management is rapidly becoming a crucial zone of concern in individual's life as well as in university life. Many factors act as obstacles to students for getting a high GPA during their university tenure; one of these factors is effective time management which is valuable to students. They should have time management skills to be able to successfully organize and achieve their goals and objectives; especially medical sciences' students who have huge curriculums. It may be hard for some of them to manage their study and leisure time which may lead to stress as stated by(Waghachavare VB etal.,(2013) and Oboko OA etal.,2015), this augments the importance of time management skills for them . There seem to be dearth of evidence on time management skills, academic performance and perceived academic satisfaction among Saudi medical students (Alshaya HM etal.,2017). Thus investigating time management habits and its related factors could be targeted by faculty members in

developing strategies to improve student time management skills and therefore increase learning capacities and improve academic performance

This study aimed to:

Investigate the time management habits by the students and its related factors and to explore the relation between the academic achievement and time management skills

Research questions

- 1- What is the relationship between the time management habits and related factors among faculty students?
- 2- What is the relation between the academic achievement and time management skills?

Material and method:

Research design

A cross-sectional research design technique was used in this study.

Setting

The study was conducted at a Private College for Applied Medical Sciences for females at Saudi Arabia. It was chosen for being a faculty providing medical sciences with different medical and paramedical specialties and relatively a large sample of students in one of Kingdom of Saudi Arabia main cities (Dammam – Eastern Provenience).

Subjects:

A convenient sample was used in this study which included all students enrolled at the faculty during the whole academic year 2018-2019. 215 enrolled students; out of which 190 accepted to participate in the study were included from the all departments at the faculty; as follows: 75 clinical laboratory, 23 medical emergency, 12 imaging, 29 nursing and 51 health administration departments' students.

Exclusion criteria

The preparatory students were excluded due to lack of experience in the university life.

Tool of the study

Data were collected using a standard time behavior questionnaire that was adopted by the researchers from (Al-Muzain., 2012). The questionnaire consisted of twenty-six questions divided into two sections; the first section included 3 items about age, specialty and the GPA while the second section was about time management behaviors and included 23 items.

Scoring system:

Data about age, specialty and Grade Point Averages (GPA) were collected. Students time management skills were tested by using the study tool that employed a (4- point) scale. Participants answer: (1) always, (2), often, (3) sometimes and (4) rarely. The score of each question was assigned as follows: The cutoff point for: “good” was more $\geq 75\%$,” fair” between 60- less than 74% of the total score and “poor “less than 60%.

Content validity

The content validity was done for the tool by experts in the field of higher education and students’ counseling followed by necessary changes

Pilot study:

A pilot study was carried out on 19 students (10 %of the sample). Clarification and estimation of the time needed for filling the study tools, and testing the feasibility of the research process and modifications were done accordingly. The students involved in the pilot study were excluded from the study.

Ethical consideration:

Official approval was obtained through an issued letter from the Vice Dean of the Faculty and the ethical committee of the college. The study objectives were explained to the participants, confidentiality was ensured and also the right to refuse to participate or withdraw from the study at any time was guaranteed. The participants were informed that the data will be used for research purposes only. The questionnaire was anonymous with no personal identifiable data.

Methods

Data collection:

After obtaining the official approvals for conducting the study, sufficient questionnaires were printed and distributed by the researchers

through the academic year 2018/2019. All registered undergraduate students were invited to participate in the study, by answering a self – administered questionnaire which was anonymous to ensure confidentiality and to avoid bias. The average time spent for students filling questionnaires was around 15-20 minutes. The researchers collected the data from students through their academic day. The academic performance of the students such as GPA was acquired through the student administration system and departmental documentation of the institution.

Statistical Analysis

Data was analyzed by descriptive and analytical statistics. Preceded data was statistically analyzed by the Statistical Package of Social Science Software Program (SPSS), version 21. Data was summarized using frequency and percentage. P value equal or less than 0.05 were considered statistically significant and if less than 0.01 were considered highly significant.

Results:

Table 1: indicated that the majority of students (97.4%) were older than 19 years old, with age range between 20 -25. Students studying at the Clinical Laboratory department constituted 39.5% of the studied sample. As regards the GPA; about one third of students (34.2 %) had GPA from 3.5 to3.9 and the minorities (10%) had GPA from 4.5 to 5. Note: the total GPA is out of 5.

Table 2: illustrated the different time management skills adopted by the students. Question (6) which stated "I seek to attend my lectures on time scored the highest percentage (67.4%), while q (15) which stated “I abide by the university's study” scored the second rank reaching (66.3%). Question (13) which states (I put myself a periodic schedule for daily review), scored the least of all the responses

Figure (1): Regarding time management scores, figure (1) illustrated that 82.1% of students had good scores 75% and more, while 5.8% of them had poor score <60% which indicated poor time management skills

Table 3: showed that 82.2% of students above 20 years old had good scores; with no statistically significant association detected.

Table 4: showed that the students studying at the clinical laboratory department scored the highest and the students studying at Emergency and Radiology department scored the least, with no statistically significant association detected

Table 5: revealed that there is a statistically significant relationship between the scholastic achievement presented by the GPA; with time management skills; where FET (13.797) sig (0.020)

Table 6 shows the coefficient of determination using Nagelkerke Pseudo R-square was 0.105; indicating a low coefficient

probably because of the small number of independent variables.

While table 7 showed that neither age nor specialty had a significant effect on score (Wald Chi square=0.019, Sig=0.890 and 2.653, Sig=0.103 respectively).

On the other hand, GPA was a significant factor (Wald=11.679, Sig=0.001). Since the GPA estimate is positive (0.825) this means that having a higher score level regarding time management skills ; the GPA increases revealing a positive trend between both variables.

Table 1: Distribution of the studied sample according to age, specialty and GPA

	Count	%
age		
<19	5	2.6
19+	185	97.4
Total	190	100.0
Specialty		
Management	51	26.8
Nursing	29	15.3
Laboratory	75	39.5
Radiology	12	6.3
Emergency	23	12.1
Total	190	100.0
GPA		
2 to 3.4	53	27.9
3.5 to 3.9	65	34.2
4 to 4.4	53	27.9
4.5 to 5	19	10.0
Total	190	100.0

Table 2: Time management skills:

Skills		Never		Rare		Sometimes		Always	
		Count	%	Count	%	Count	%	Count	%
1	I do a daily plan to organize studying	6	3.2	24	12.6	97	51.1	63	33.2
2	I evenly distribute time over courses	6	3.2	19	10.0	104	54.7	61	32.1
3	I can correctly assign suitable time for each course	9	4.7	19	10.0	76	40.0	86	45.3
4	I distribute my daily assignments on specific time	7	3.7	34	17.9	88	46.3	61	32.1
5	I motivate myself after studying	1	.5	25	13.2	59	31.2	104	55.0
6	I attend my lectures on time	0	.0	16	8.4	46	24.2	128	67.4
7	I do my best for the max benefit from my lectures	2	1.1	11	5.8	72	37.9	105	55.3
8	I assign part of my time for discussion and more understanding	7	3.7	48	25.3	81	42.6	54	28.4
9	During the lecture I respect my colleagues point of view	4	2.1	14	7.4	67	35.3	105	55.3
10	I invest my free time in recreation	3	1.6	17	8.9	57	30.0	113	59.5
11	I spend some of my time for knowledge reinforcement	3	1.6	31	16.3	87	45.8	69	36.3
12	I invest my time in the faculty to upgrade my academic achievements	10	5.3	32	16.8	93	48.9	55	28.9
13	I have a schedule for daily revision	16	8.4	58	30.5	72	37.9	44	23.2
14	I am to finish my study plan on time	3	1.6	27	14.2	69	36.3	91	47.9

	Skills	Never		Rare		Sometimes		Always	
		Count	%	Count	%	Count	%	Count	%
15	I abide by the university's study	6	3.2	14	7.4	44	23.2	126	66.3
16	I efficiently distribute my time between family and university requirements	7	3.7	19	10.0	86	45.3	78	41.1
17	I allocate enough time for revision	3	1.6	30	15.8	66	34.7	91	47.9
18	I usually allocate one hour for recreation to improve studying	5	2.6	20	10.5	56	29.5	109	57.4
19	I believe that sports improve my scholastic achievement	15	7.9	31	16.3	63	33.2	81	42.6
20	Food time is vital to increase academic achievement	2	1.1	20	10.5	66	34.7	102	53.7
21	Be sure to spend time participating in various activities	20	10.5	55	28.9	68	35.8	47	24.7
22	I am interested in various community visits as a step to increase academic achievement	19	10.0	42	22.1	75	39.5	54	28.4
23	I see the time record for self-evaluation and academic performance improvement	9	4.7	21	11.1	78	41.1	82	43.2

Figure 1: Distribution of the sample according to the score level of time management skills:

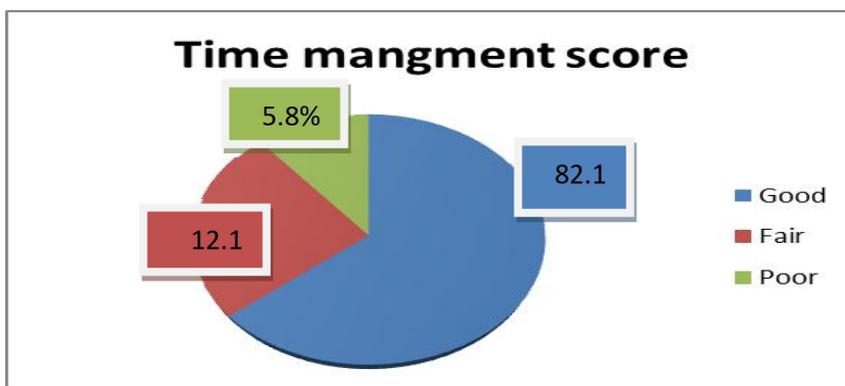


Table 3: Association between age and score level of time management skills

		Score level			Total	FET
		Good (≥75%)	Fair (60-74%)	Poor (<60%)		
Age <20	Count	4	1	0	5	0.869 0.633
	%	80%	20%	0%	100%	
19+	Count	152	22	11	185	
	%	82.2%	11.9%	5.9%	100%	
Total	Count	156	23	11	190	
	%	82.1%	12.1%	5.8%	100%	

Table 4: Association between Specialty and score level of time management skills

Specialty		Score level			Total	FET Sig
		Good (75%)	Fair (60-74%)	Poor (<60%)		
Management	Count	42	6	3	51	6.651 0.531
	%	82.4%	11.8%	5.9%	100%	
Nursing	Count	24	3	2	29	
	%	82.8%	10.3%	6.9%	100%	
Laboratory	Count	65	7	3	75	
	%	86.7%	9.3%	4.0%	100%	
Radiology	Count	8	2	2	12	
	%	66.7%	16.7%	16.7%	100%	
Emergency	Count	17	5	1	23	
	%	73.9%	21.7%	4.3%	100%	
Total	Count	156	23	11	190	
	%	82.1%	12.1%	5.8%	100%	

FET= Fisher's Exact Test, Sig=Monte Carlo Probability

Table 5: Association between GPA and score level

GPA		Score level			Total	FET Sig
		Good (75%)	Fair (60- 74%)	Poor (<60%)		
2 to 3.4	Count %	36 67.9%	9 17%	8 15.1%	53 100%	13.797 Sig (0.020)
3.5 to 3.9	Count %	56 86.2%	7 10.8%	2 3.1%	65 100%	
4 to 4.4	Count %	45 84.9%	7 13.2%	1 1.9%	53 100%	
4.5 to 5	Count %	19 100%	0 0%	0 0%	19 100%	
Total	Count %	156 82.1%	23 12.1%	11 5.8%	190 100%	

FET= Fisher's Exact Test, Sig=Monte Carlo Probability

Table 6: Ordinal Logistic Regression Analysis using the dependent variable (Nagelkerke methods)**Pseudo R-Square**

Cox and Snell	.072
Nagelkerke	.105
McFadden	.064

Link function: Logit**Table 7 :** Parameter Estimates

Location	Estimate	Std. Error	Wald	Df	Sig.
Age	.169	1.226	.019	1	.890
SP	-.258	.159	2.653	1	.103
GPA	.825	.242	11.679	1	.001

Link function: Logit.

The above 2 tables show results of the Ordinal Logistic Regression Analysis using the dependent variable as the ordinal score level categorized as total score (Good=75%+, Fair=60 to 74% and Poor=<60%).The independent variables were Age, Specialty and GPA.

Discussion:

Time management is a group of practices, skills, tools, and systems that work together to promote life quality (Kaushar M., 2013). The target of time management is to increase the quality of tasks being executed within a limited time. University period represents an important process which is considered the intersection of different activities' components for the future life of students. University students, on one side are trying to adapt new friendship, freedoms and experiences, on the other side; to accomplish more complex tasks and thrive to acquire basic information on the professions in the future they will have. In this sense, the university period, not only is the preparation for business life, but also reflects a holistic preparation process to an entire life (Fidan Fetal., 2005).

In the university education process, the formation of an effective use of time awareness

is very important for students in order to achieve their goals. There is no doubt that today's students are the future leaders for nation building; thus the formation of an effective use of time awareness is very important for them in order to achieve their goals. On the contrary; poor time management behaviors would definitely result in poor academic performance. Empirical evidence suggests that effective time management is associated with greater academic achievement (Richelle V and Blair E .,2019).

The current study showed that there was statistically significant relationship between the scholastic achievement presented by the GPA together with time management skills; where FET (13.797) sig (0.020). Similar results were shown in a study conducted among Students in Higher Institutions, Nigeria (Oboko OA.,2015) which strongly recommended that students have to be conscious of time in performing their academic activities so that the level of

their academic performance can be high (Aduke A.,2015). Results of the current study are also congruent with the results of (Asyikin SN et al.,2018) who stated that all the time management behaviors are significantly positively related to academic achievement of students , and also with (Alamodi LA et al.,2017) who showed that Students of Gazan University in Saudi Arabia; who had opportunities to practice time management skills revealed better academic performance.

Another study conducted by (Talib N and Sansgiry S., 2012) in an Asian context; documented that the issue of time management has been found highly significant and positively related to students' academic performance. (Miqdadi FZ et al., 2014) stated that all of the unsuccessful students with low GPA from the Petroleum Institute in Abu Dhabi, the UAE found difficulties in managing their time .This may be due to the fact that as a student keeps delaying his work, stress will rise up and more pressure will be placed upon him, which will lead him to late submissions and consequently a decline in the student's marks and GPA. (Lisa M and Robert., 2009)

More over; In the study of (De Jager.,2014) students reported that not being able to manage time, not coping with the work overload, procrastination and keeping their work till the last moments before exams; had a negative impact on their results. On the contrary; another study by (Yusof A., 2016) about time management and academic performance of international students from Iraq in University Putra Malaysia revealed that there is no significant relationship between time management and GPA, the results reported ($p=0.698$). The difference between this study and the current study may be due to the variation in the social circumstances and other factors experienced by the students in two different settings.

Regarding the relation between time management skills across the different specialties; a study conducted by (Al-Muzain.,2012) showed that there is a significant differences ($p < 0.05$) in the average of students response about the effectiveness of time management with different specialties (primary education, psychological counseling,

and Islamic studies; this is contradictory to the results of the current study that showed no statistically significant association between the different faculty specialties and time management skills. Moreover, the current study showed no significant difference between the age range of the studied sample with their time management skills; opposing a study conducted by (Ziapour A et al.,2015) in Iran that indicated a significant difference in age range ($p<0.001$) of the mean scores of time management behaviors. This may be related to different cultural and social contexts.

It is clear from the above findings; that time management is probably an individual skill; that is most of the time not specific to age, gender or type of study. Students could be advised and directed about the best time management skills but still they should carry it on by themselves. this is also stated by a study done by (Brigitte JC et al ., 2005) who sated that each and every student should have time management ability which includes setting goals & priorities, using time management mechanism and being organized in using time. Hence; time management is only possible through self-motivation; performance and ability (Brigitte JC., et al., 2005) .Time Management is not doing the wrong things faster; it is doing the right things. It refers to the development of processes and tool that increase efficiency and productivity. (Subramanian A., 2016).

Regarding the most frequently adopted time management skills among the high GPA holders; a study conducted by (Caligor., 2017) showed that majority of them agreed about making a diary, to-do list or put important dates on the calendar. It might be due to the established relationship between maintaining a task list and effective time management. In the current study attending lectures on time and abiding by the university's study were the most frequently employed habits. While the least frequently applied was putting a periodic schedule for daily studying. According to (Nadinloyi K, et al.,2013); time management skills primarily includes; setting goals, meeting deadlines, using aids such as list making, coping with change and developing plans. (Carolyn M et al., 2012) and (Nadinloyia K., 2013) demonstrates that time management

skills can be trained as it is influenced by cognition (e.g. goal setting and intention) and context .

The current study documents that the ability of university students to master the time management habits which leads to efficiency; paves a way for their success, as successful students are good time managers.

These skills could be acquired through training and mentoring; which is in the first place the duty of faculty staff members.

Further research is needed to identify the best training methods and counselling sessions to assist students in being efficient in using their time.

Conclusion:

In light of the current study results, it was concluded that there is a statistically significant relationship between the scholastic achievement presented by the GPA; with time management skills, this means that having a higher score level regarding time management skills results in increasing the scholastic achievement of students presented by the GPA; revealing a positive trend between both variables. Regarding time management habits adopted by the students; the highest percentage score was seeking attending lectures on time followed by abiding by the university's study and the least score of all the responses was to put a periodic schedule for daily review. No significant relation was found between the other studied variables with time management skills.

Recommendations:

Based on the findings of the current study, the following recommendations are suggested

Effective time management skills should be taught to under graduate students through

- 1- Conduct periodic workshops to students to increase awareness and improve attitude and modify behaviors regarding time management skills
- 2- Teachers should incorporate time management concepts and applications in their classes.

- 3- Trainings and seminars on time management skills and how to create a master schedule are also encouraged for the students.
- 4- More studies are to be conducted for the best ways for training and mentoring students in acquiring the different and the most effective and efficient time management skills.

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