

The Effect and Perspective of Applied Medical Science College Students on E-learning in Umm Al-Qura University in 2021 (Covid-19 time)

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Abstract

Background: Covid-19 the pandemic that struck the world in 2019 has affected every aspect of our lives, economy, education, and many more aspects changing the course of our lives. In light of that, the government has issued a closure of a lot of activities and the educational one affects the whole community, this study's aim to look into how the shift from the traditional face-to-face method of teaching (E-learning), has affected students of the Faculty of medical science in Umm Al-Qura University.

Method: A cross-sectional study was the method of choice, a questionnaire made through Google forms has been made and sent through WhatsApp to the leaders of every group in every specialty of the Faculty of applied medical science at Umm Al-Qura University.

Results: over 259 students applied to the questionnaire, and 66 of them were excluded for being outside of the study sample group, for a total of 193 participants, and we concluded that the shift to E-Learning might have been challenging but it also had its pros and cons, be it an improvement in students lives such as more free time, less stress and anxiety or the disadvantages such as laziness because of the free time or the lack of understanding of educational material.

Conclusion: E-learning is very new to most people and medical students have accepted and adapted to it mostly very well, and while they faced challenges they also got the best out of it, as they preferred if it will be the future method used in education, this represents a significant and promising potential for the future of medical education.

Keywords: Covid-19; E-learning, Effect and perspective, Umm Al-Qura University, Applied medical science college

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Introduction

In December 2019 in Wuhan, China, a new communicable disease is known now as Covid-19 that is characterized by severe acute respiratory syndromes that are similar to normal flu has been discovered [1]. Covid-19 has made its outbreak in China's seafood markets as pneumonia of unknown etiology [2], and on January 30th The World Health Organization (WHO) has declared the outbreak as a Public Health Emergency of International Concern (PHEIC) and a pandemic On March 11th [3].

Covid-19 has emerged into our lives faster than anyone could imagine, and it has made a huge impact on our daily lives, changing the course of how things are handled and being done, one of those aspects is the educational one, which has gone through a sudden change from a traditional way of offline studying into a more modern way through online classes, E-learning is not new

to Saudi Arabia, as it has been established so far back in 2002 [4], though there is a big difference between those two methods especially for students who have been studying only through the offline traditional method and it could be very challenging [5].

In this study, we're aiming to find how the shift to online has affected the opinions and perspectives of the medical students of faculty of applied medical science in Umm Al-Qura University in Saudi Arabia.

Method

A cross-sectional study was carried out by collecting data through a questionnaire made by using the platform 'Google forms' and it was sent to the study group sample through WhatsApp, and it involved only students studying at the faculty of applied medical science in Umm Al-Qura University, which are Anesthesia

technicians, Emergency medicine, laboratory medicine, physiotherapy, respiratory care, Clinical Nutrition.

We contacted every group leader in every specialty in the faculty of applied medical science and requested them to send the questionnaire link to each student, taking into consideration that using the internet and social media apps may result in sending the link to people outside of the study group sample, we inserted a specialty option named as 'other' while all the remaining specialty options were that of the study group sample. The set of questions that have been implemented into the questionnaire have been inspired by other researcher's studies taking place in Saudi Arabia [6, 7].

Results

Over 259 participants have applied to the questionnaire, and 66 of them were from the 'other' category, so after excluding them we got 193 out of 1344 students in total, (34.7%) of them were of the second year, (24.4%) were of the third year and (40.9%) of them were of the fourth year (Table 1) (Figure 1-4), (Table 2 & 3)

Students were also asked "what type of problems have they faced during online studying" in an open-ended method, and we have translated their results into the following:

- 'Laziness'
- 'Missing prayers'
- 'Home chores mixing with school.'
- 'Some teachers don't abide by the time limited for lectures.'

- 'Technical issues'
- 'traditions and customs'
- 'headaches and eye pain'

Discussion

The transitioning from offline into the online method of studying might be easy, but it is not perfect as over 78 (40.4%) Disagreed and 39 (20.2%) strongly disagreed that the transition was followed by a couple of problems, we're contributing these numbers to the open-ended question they've been asked, as laziness, technical issues (e.g., internet connection, old instruments) are one of the many problems that one could face during online studying.

It has also been noticed that the students have faced problems in understanding the educational content through the online studying method as over 65 (33.7%) disagreed and 32 (16.6%) strongly disagreed that if the online method has affected their understanding of the educational method positively.

Time is one of the most important factors in a student's life, and the shift to the online method has affected them positively regarding that aspect, as over 63 (32.6%) strongly agreed and 38 (19.7%) agreed that time management has become easier to do because of e-learning, and time is very crucial because it involves the time they have to study, revise, do homework and attend their own private lives as the offline method has hindered that to some people.

The common theme that is found in this data that most of the

Table 1. Frequency table.

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 - 20 years	62	32.1	32.1	32.1
	21 - 22 years	103	53.4	53.4	85.5
	Older than 22 years	28	14.5	14.5	100
	Total	193	100	100	
Specialty					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Anesthesia tech	57	29.5	29.5	29.5
	Clinical nutrition	32	16.6	16.6	46.1
	Emergency services	22	11.4	11.4	57.5
	Laboratory Medicine	30	15.5	15.5	73.1
	Physiotherapy	18	9.3	9.3	82.4
	Respiratory therapy	34	17.6	17.6	100
	Total	193	100	100	
Year					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2nd year	67	34.7	34.7	34.7
	3rd year	47	24.4	24.4	59.1
	4th year	79	40.9	40.9	100
	Total	193	100	100	
Sex					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	61	31.6	31.6	31.6
	Male	132	68.4	68.4	100
	Total	193	100	100	

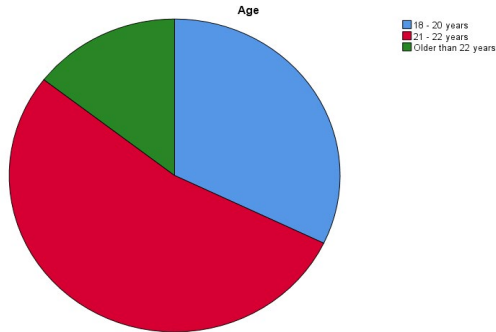


Figure 1 Pie chart of age.

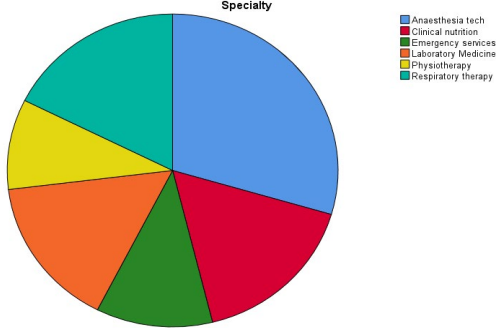


Figure 2 Pie chart of speciality.

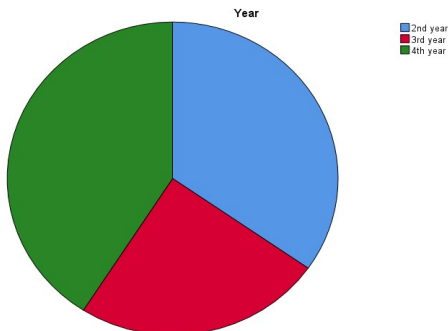


Figure 3 Pie chart of year.

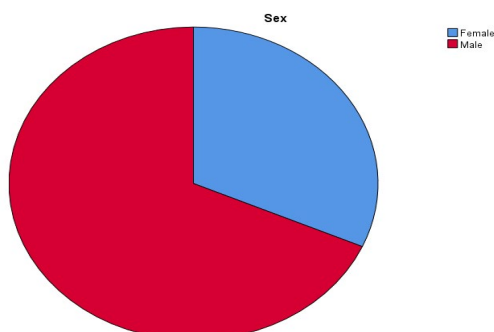


Figure 4 Pie chart of sex.

student agree that e-learning has made life easier with its special nature, decreasing anxiety in over 59 (30.6%) who strongly agreed and 49 (25.4%) who agree, and that should be considered a positive view since there is a huge correlation between high levels of anxiety and low academic performance as it was mentioned [8].

Students also have found that e-learning eases time management which can make managing school work and studying much more easier and efficient.

Most of the students got their understanding of the educational content affected negatively in the process of shifting into e-learning as over 56 of them disagreed strongly and 32 (16.6%) disagreed with it improving and affecting it positively.

Over 40 (20.7%) have strongly agreed and 67 (34.7%) have agreed that the teaching staff was skilled enough to deliver their teaching material through e-learning.

In Table.3 while 70 students preferred offline studying, over 109 (56.5%) students which is more than half prefer the combined method of online and offline studying, which is reasonable because practical experience and theory not involving that much action regarding practice.

In the last question that has been answered mostly they're problems that can be solved through a little bit of tweaking, for example, laziness, home chores mixing, missing prayers can all be fixed with good time management, and headaches and eye pain can be resolved with a little bit of rest.

Conclusion

The change from face-to-face offline teaching method is a very challenging experience, and it can affect students in various ways, either be it their mental health or their understanding of the educational material which are the most important aspects of teaching experience, in the end, we have concluded that E-learning can have it's positive and it's negative effects on students, as the lack of understanding of the educational material, but it can also be good as it decreased anxiety and of students and gave them so much free time that can be organized for further improvement with good time management either for their personal lives or their academic one.

Footnote

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Limitation

The limitation of the study included the lack of participants,

Table 2. Student’s survey regarding close-ended questions.

Descriptive Statistics							
	N	Minimum	Maximum	Mean	Std. Deviation		
Transitioning into e-learning wasn't followed by any problems	193	1	5	2.62	1.31		
E-learning has affected my understanding of the studying content positively	193	1	5	2.83	1.341		
Time management has become better because of e-learning	193	1	5	3.32	1.503		
E-learning hasn't affected teachers in delivering education	193	1	5	2.87	1.388		
It was easy to communicate with the teachers	193	1	5	3.61	1.291		
Teachers were skilled enough to deliver education online	193	1	5	3.38	1.262		
E-learning has decreased my anxiety	193	1	5	3.38	1.474		
Valid N (list wise)	193						
#	Questions	Decisions					
1	Transitioning into e-learning wasn't followed by any problems	SA	A	NAD	D	SD	
		21	38	17	78	39	N
		10.9	19.7	8.8	40.4	20.2	(%)
2	E-learning has affected my understanding of studying content positively	31	34	31	65	32	N
		16.1	17.6	16.1	33.7	16.6	(%)
3	Time management has become better because of e-learning	63	38	19	43	30	N
		32.6	19.7	9.8	22.3	15.5	(%)
4	E-learning hasn't affected teachers in delivering education	30	46	24	55	38	N
		15.5	23.8	12.4	28.5	19.7	(%)
5	It was easy to communicate with the teachers	59	65	15	42	12	N
		30.6	33.7	7.8	21.8	6.2	(%)
6	Teachers were skilled enough to deliver education online	40	67	30	39	17	N
		20.7	34.7	15.5	20.2	8.8	(%)
7	E-learning has decreased my anxiety	59	49	24	28	33	N
		30.6	25.4	12.4	14.5	17.1	(%)

Table 3. Students reply to how they want the teaching format to be in the future.

In the future, I want to study in the form				
Offline studying	Online studying	Theoretical Online, Practical offline	Online for practical, offline for theoretical	No
70	11	109	3	No
36.3	5.7	56.5	1.6	Percentage

although the questionnaire form has been sent so many times not many have participated, and the study sample being so limited to faculty of applied medical science in Mecca.

Conflicts of interest

The authors declare no conflicts of interest.

Informed consent

Written consent was obtained from all individual participants included in the study.

Ethical approval for human

All procedures performed in studies involving human participants were in accordance with the ethical standards of Umm Al-Qura.

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