



COVID-19: INFLUENCE ON ACADEMIC AND PERSONAL LIVES OF MEDICAL STUDENTS

SANAA AHMED¹, SYEDA ZARREEN RAZA², ZUNAIRAH RAIS³, SAAD SALEEM⁴

¹Department of Oral Medicine, Jinnah Sindh Medical University, Karachi, Pakistan;

²Professional Development Center, Jinnah Sindh Medical University, Karachi, Pakistan;

³Department of Internal Medicine, Liaquat National Hospital, Karachi, Pakistan;

⁴Department of Physiotherapy, Iqra University, Karachi, Pakistan.

CORRESPONDENCE: DR. SANAA AHMED

E-mail: sanaa.ahmed@jsmu.edu.pk

Submitted: 24 March 2021

Accepted: 14 January 2022

ABSTRACT

OBJECTIVE

To find out the effects of the pandemic on the lives of the students medical and allied studying at a government-based institution in Pakistan.

STUDY DESIGN

Cross sectional descriptive study.

PLACE AND DURATION OF STUDY

The study was conducted in 5 institutes of Jinnah Sindh Medical University.

SUBJECTS AND METHODS

Sample size of 310 students was taken from 5 institutes of Jinnah Sindh Medical University. After taking permission from IRB and institutional head, students were emailed the forms which contain the consent and the questionnaire to be filled on google form.

RESULTS

Students reported lack of physical activity, sleep deprivation, alteration in sleeping habits, depression and social isolation. They also reported their satisfaction with their online learning experience as bad and complained about the increase in workload.

CONCLUSION

Our findings are consistent with the previous studies. This study is different from previous ones as we have looked at all the aspects of student's life while previous ones mainly highlighted a single side either academics, or social or mental health. It is suggested that counseling services be provided to students to help them cope with these effects.

KEY WORDS

Pandemics, Education, Distance, Mental Health, Social Isolation.

INTRODUCTION

During the COVID-19 era, due to the infectious nature of disease the whole world went under lockdown. It not only caused a financial crisis but a communication dilemma as well.¹ On the management side the employers are forced to think about digital solutions to their daily tasks since work from home became a norm.² Working from home brought a different disaster or I say gave a different definition of pandemic. A survey held in the US from 4-8 April 2020, showed that there was a 43% increase in text messages, 36 % in voice calls, 35 % in social media, and 30% increase in video calls while overall increase was 46%.³ Most of the problems faced by students and faculty during this time period in communicating and completing their tasks were mostly related to digital communication means and skills.

Commonest problem faced was job insecurity which was a major stress factor as the losses exceeded the profit, companies started decreasing the workforce since less orders received less people required.⁴ People were compelled to work relentlessly resulting in anxiety, insomnia and depression.⁵ Working from home decreased the personal time and space as the employers did not always limit the communication during working hours. Sleeping hours were sacrificed and workers tried to complete daily goals and sustain their job and studies causing anxiety issues. Video conferencing calls from employer and online classes lack the body language signs and proper work environment lacking at home hence lack of clarity of tasks and outcomes required.^{6,7} Also, since training was required to use digital communication solutions added to the cost, time and energy of the institution and the employee/student. This created the feelings of social and professional isolation usually faced by e-workers.⁸

Similar problems were faced in the academic side by students with sudden shift from face-to-face sessions to online classes and assessments, struggling to juggle work from home and study from home. Procrastination and distraction increased with increase of internet usage and lack of motivation from peers and teachers.⁹

The current study was designed to find out the problems faced by students of JSMU during this COVID-19 era in their professional and personal lives.

SUBJECTS AND METHODS

Participants

A total of 308 students took part in this descriptive cross-sectional study conducted at Jinnah Sindh Medical University Karachi, Sindh, Pakistan. It is study convenience sampling was done after taking permission from IRB of Jinnah Sindh Medical University. Inclusion criteria was students enrolled in MBBS, BDS, Pharm D, DPT, BSN programs at Jinnah Sindh Medical and students with any smart device or computer and internet connection. While, exclusion criteria included students who refused to consent.

Instrument

The Questionnaire was specifically designed and reviewed by the involved faculty members. The survey form was validated by pilot testing on 10% of the sample size population before the commencement of the study. Data of that 10% was not included in the final results.

Procedure

After seeking permission from the Institutional Review Board (Letter no: JSMU/IRB/2021/-408), an invitation letter to all the Heads of the disciplines were sent requesting them to participate in the study. Upon acceptance, the link of the questionnaire created on Google Forms was shared with the students through respective Google classrooms. After collecting the data, analysis was completed through SPSS ver.20.

RESULTS

A total of 310 forms returned and 2 had missing data. Around 83% of the respondents were females while 17% were male. The questions were divided into 5 subscales. Subscale 1 comprised of physical health related questions.

Table 1
Subscale physical health.

Item Number	Q1	Q2	Q3	Q4	Q5	Q6	Q9
Strongly Disagree	3.9	8.8	4.5	1.6	3.6	2	63
Disagree	6.2	47.4	27.3	13.6	18.8	13	89
May be	11.7	22.7	28.9	11.7	12.3	24	56
Agree	43.2	15.6	28.9	39.0	28.6	102	100
Strongly Agree	35.1	5.5	10.4	34.1	36.7	167	0
Total	308	308	308	308	308	308	308
Missing	2	2	2	2	2	2	2
Mean	3.99	2.62	3.13	3.90	3.76	4.36	2.63
Standard Deviation	1.034	1.029	1.070	1.069	1.230	.848	1.139

Item Number	Q7	Q8
Yes	201	267
No	107	41
Missing	2	2
Total	308	308
Mean	0.13	0.35
Standard Deviation	0.34	0.477

Table 2
Subscale mental health.

		Q10	Q11	Q12	Q13
Valid	Strongly Disagree	2.3	1.9	5.8	5.5
	Disagree	11	15.3	18.2	16.9
	May be	8.1	10.7	17.9	11.4
	Agree	30.5	33.4	28.9	28.9
	Strongly Agree	48.1	38.6	29.2	37.3
	Mean	4.11	3.92	3.57	3.76
	Std. Deviation	1.095	1.13	1.244	1.267
Missing		2			
Total		310			

Table 3
Subscale financial aspect.

		Q14	Q15	Q16	Q17	Q18	Q19
Valid	Strongly Disagree	1	0.6	7.8	18.5	10.7	5.5
	Disagree	7.1	4.2	29.9	45.1	28.6	19.8
	May be	28.2	7.8	15.3	7.5	8.1	15.9
	Agree	37	33.1	24.4	15.6	29.2	35.7
	Strongly Agree	26.6	54.2	22.7	13.3	23.4	23.1
	Mean	3.81	4.36	3.24	2.6	3.26	3.51
	Std. Deviation	0.943	0.848	1.307	1.314	1.371	1.201
Missing		2	2				
Total		310					

Table 4
Subscale social life.

		Q20	Q21	Q22
Valid	Strongly Disagree	20.5	4.9	3.6
	Disagree	28.9	12	12
	May be	18.2	12.3	13.6
	Agree	32.5	41.6	39.3
	Strongly Agree	0	29.2	31.5
	Mean	2.63	3.78	3.83
	Std. Deviation	1.139	1.136	1.108
Missing		2	2	
Total		310		

Table 5
Subscale academics.

		Q23	Q24	Q25	Q26
Valid	Strongly Disagree	1.9	13.3	3.6	9.1
	Disagree	8.1	49.7	3.6	41.6
	May be	12.3	10.7	22.7	10.7
	Agree	34.1	19.8	39.9	22.7
	Strongly Agree	43.5	6.5	30.2	15.9
	Mean	2.95	3.9	4.09	2.95
	Std. Deviation	1.283	0.993	1.026	1.283
Missing		2			
Total		310			

The overall standard deviation for the subscale 1 was 1.014. Around 9 questions were asked about the physical activity and the sleeping habits of the students. Question 1 "Due to the Covid situation, I was afraid to go to hospitals" was rated highest for "agree" (43.2%) while "Strongly Disagree" was lowest at 3.9%. In question 2 "Clinics near my house were closed, and my health suffered due to it" was marked

highest for "Disagree" (47.4%) while lowest was "Strongly agree" at 5.5%. In question 3 "Medicines were short in the market" was marked highest for both "May be" and "Agree" while lowest for "Strongly Disagree". For question 4 "Face masks/ sanitizers were short in the market" got the highest response for "Agree" at 39% while for lowest for "Strongly Disagree" (1.6%). Question 5, "I myself suffered from Covid" got a "Negative" response of around 86.7% while only 13.3 % answered in "Yes". Questions 6 "My immediate family suffered from covid" got 34.7% in "yes" while 65.3% answered in "No". For question 7 "I exercised to manage my lack of activity" was marked as "Never" in 27.4% of the sample, "Every alternate day" in 24.7%, "Daily" in 20.5%, "twice per week" in 18.2 % , and "every second day" in 9.7% of the sample. Question 8 "I usually slept late and woke up late in the morning" was marked highest for "Strongly Agree" and lowest for "Strongly Disagree". Question 9 was "I hardly managed to get hours of sleep daily" was answered highest for "5 hours" and lowest for "7 hours" (see table 1 for details).

Subscale 2 had 4 questions (10-13) related to mental health of the students. First Question was "I was stressed due to work overload" was rated highest as "strongly agree" by 48% of the students while lowest for "strongly disagree" as 2.3%. Question 2 was "I was unable to complete daily tasks" was rated highest for "Strongly Agree" while for "Strongly Disagree" as 1.9%. Question 3 was "I suffered from depression during this time" was answered highest for "Strongly Agree" 29.2% while lowest for "Strongly Disagree" 5.8%. The fourth Question was "My sleeping habits were affected negatively" which was mostly answered "Strongly agree" and least as "Strongly Disagree" (Table 2).

The 3rd Subscale was about the financial problems the students faced during this time period. It contained six questions (14-19). The Question "Medicines' prices were hiked" got highest percent for Agree (37%) while lowest for Strongly Disagree (1%), "Face masks/sanitizers were expensive" got highest for Strongly Agree (54%) while lowest for Strongly Disagree (7.8%), "Did you suffer from financial problem" got Disagree from 29% while Strongly Disagree from 1%, "Any family member lost the job" got highest for Disagree (45%) while lowest for May be (7.5%), "Did the pay of any earning member of the family decreased" got highest for Agree (29%) while lowest for May be (8.1%), "Your household budget increased and affected the finances" got highest for Agree (36%) while Strongly Disagree from 5.5% (Table 3).

Subscale 4 was about the effects on the social aspect of life. Question included "Social distancing from peers/family members affected me" marked highest as Agree (32%) while lowest for May be (18.2%), "I was afraid to leave the house due to Covid" was answered as highest for Agree (42%) while lowest for Strongly Disagree (4.9%), "Decreased outdoor activities affected me" marked as highest for Agree

(39.3%) while lowest for Strongly Disagree (3.6%).

The subscale 5 was about academics. It included 4 questions. "Long distance learning affected my academics negatively" was marked as highest for Strongly Agree (43%) while lowest for Strongly Disagree (1.9%), "I did not have equipment for online learning" reported highest for Disagree (49%) while lowest for Strongly Disagree (4.9%), "Online learning increased the amount of work" as highest for Agree (39%) while lowest for Strongly Disagree (3.6%) and Disagree (3.6%), "I had to buy equipment at high prices for the online sessions" as highest for Disagree (42%) while lowest for Strongly Disagree (9.1%).

DISCUSSION

Covid-19 had affected the overall lives of people negatively. The panic and the chaos caused during the 1st and 2nd wave resulted in anxiety and depression.^{5,10} Our study found out its effects on the lives of students studying at a government-based institution. The overall Physical and mental health of the students had similar negative effects as their sleep pattern was affected along with the amount of work increased. Social isolation from family, friends and colleagues left a gaping hole. They avoided going to hospitals due to the possibility of exposure and hence their health suffered though small clinics were functioning. They also mentioned lack of activity which is another factor in health issues. Their sleep pattern was affected as well and most of the students reported around 5 hours of sleep daily and sleeping late at night.

Students complained about the amount of stress they felt during this time period and reported that due stress factor they were unable to complete daily tasks. Which are similar to the problems reported globally in other sectors as well.^{5-7,10} Students also self-reported being depressed which affected their sleeping quality and hours as well. High level of stress and lack of proper rest along with increased workload, all of these factors affected the mental health. Subscale 3 was related to the financial dilemma they faced. They did not report any job losses or decrease in salary of any family member though they agreed that the medicines and masks and sanitizers were sold at higher prices than before the Covid-19. All these added to the financial burden one way or another.

The fourth part of the questionnaire was about the social aspect. They reported that the social isolation from the family, friends and colleagues negatively affected them. They were unable to visit malls, parks, restaurants which supported the feeling of social isolation. All of these are similar to the issues faced worldwide.^{8,10} The fifth part was about academics. Students answered that the online learning did affect their learning negatively and they had a lot of workload. They had proper equipment for the classes but accustomation to the online environment affected their

learning.^{8,10}

Around 48% of the students have reported being under stress during this time period which is higher than previously reported.¹⁰ 28% self-reported being depressed. These are high in comparison to previous findings.¹⁰ Also, the workload increased answered by 39% of the students according to our findings while in a previous study the amount of time marked by medical students was less than 2 hours, for dentistry and allied 2-6 hours, spent on the online learning.¹⁰

The major prominent effects of covid-19 are highlighted in the above study and previous ones.⁴⁻¹⁰ The long-term effects of this era are yet to be known. The psychological issues hinder the physical ability to function properly and has caused anxiety, depression, irritability and social isolation. Job insecurities have further negatively affected mental health. Physical health of people was also affected by decrease in physical activity. These are few repercussions highlighted. There is a need for a counselor to help students cope in this difficult situation and next few years to come. There was no previous study on the overall effect of covid-19 on the lives of students. Our study is the first of its type. It is recommended by the authors that a qualitative study should be followed to further enhance the knowledge on the aftermath of this era so that targeted steps should be taken to control this damage.

Funding: External funding was not sought and researchers bore the expenses.




Conflict of Interest: None to report.

Acknowledgments: None.

REFERENCES

1. Taunton Y. How Has Coronavirus Affected The Way We Communicate? Birmingham, AL Patch. 2021.
2. Kemp S. Digital 2021: Global Overview Report —

3. DataReportal – Global Digital Insights. 2021.
4. Nguyen MH, Gruber J, Fuchs J, Marler W, Hunsaker A, Hargittai E. <? covid19?> Changes in Digital Communication During the COVID-19 Global Pandemic: Implications for Digital Inequality and Future Research. Social Media+ Society. 2020;6(3):2056305120948255.
5. Mental health and COVID-19: World Health Organization; 2021 [Available from: <https://www.who.int/teams/mental-health-and-substance-use/covid-19>].
6. Diseases TLI. The intersection of COVID-19 and mental health. The Lancet Infectious Diseases. 2020.
7. Sandesh R, Shahid W, Dev K, Mandhan N, Shankar P, Shaikh A, et al. Impact of COVID-19 on the mental health of healthcare professionals in Pakistan. Cureus. 2020;12(7).
8. Waizenegger L, McKenna B, Cai W, Bendz T. An affordance perspective of team collaboration and enforced working from home during COVID-19. European Journal of Information Systems. 2020;29(4):429-42.
9. Cooper CD, Kurland NB. Telecommuting, professional isolation, and employee development in public and private organizations. Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior. 2002;23(4):511-32.
10. Baticulon RE, Sy JJ, Alberto NRI, Baron MBC, Mabulay REC, Rizada LGT, et al. Barriers to online learning in the time of COVID-19: A national survey of medical students in the Philippines. Medical science educator. 2021:1-12.
11. Ali ST, Huriah Wajid D, Baig QA, Nadeem S. Impact on Pakistani Students Education and Life Pattern During Covid-19 Pandemic. 2020.

Sr.#	Author Name	Affiliation	Contribution	Signature
1.	Dr.Sanaa Ahmed	Department of Oral Medicine, Jinnah Sindh Medical University	Designed the study, drafted the manuscript, and finalized the manuscript	
2.	Dr. Syeda Zarreen Raza	Professional Development Center, Jinnah Sindh Medical University	Conceived and designed the analysis, Drafted the manuscript, and finalized the manuscript.	
3.	Dr.Zunairah Rais	Department of Internal Medicine, Liaquat National Hospital	Collected the dataand performed analysis and finalized manuscript.	
4.	Dr.Saad Saleem	Department of Physiotherapy, Iqra University	Collected the dataand performed analysisand finalized manuscript.	