Relationship Among Online Learning, Time Management and Self Anxiety of University Students During COVID-19

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Abstract

This cross-sectional study investigated the relationship among online-learning, time management and self-anxiety of university students for the duration of COVID-19 pandemic. A sample of 250 university students was selected from Lahore College for Women University, University of Punjab, Government College University, University of Central Punjab and University of Management and Technology by using stratified random sampling strategy. Online data were collected through Google Forms by using test eLearning related attitude scale (developed by Zabadi & Alawi, 2016), self-rating anxiety scale (developed by Zung, 1965), and time management behavior scale (developed by Macan & colleges, 1990). Data were analyzed through SPSS version 21. Reliability tests and inferential statistics were applied to find out the results. In inferential statistics, correlation and regression were used. The results indicated that online learning had a positive relationship with time management behavior and self-rating anxiety of students. Regression indicated that time management was highly significant predicator of selfrating anxiety. It is recommended to provide guidance and counseling to students for managing their problems.

Keywords: online learning, time management, self-anxiety, COVID-19

Introduction

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Due to lockdown in-country, the most common issues faced by university students are to shift their traditional mode of learning to online (Shoaib et al., 2021). For the students who used the university' library to improve their education, this facility is now gone. They face limited use of print materials that helps to complete their assignment, preparation for the presentation, viva, and examination through books (Ahmed et al., 2020; Gaetjens, 2020). By shifting traditional mode to online many developed countries do not face any problems because they have wellestablished distance learning programs that save time and facilitate the students to continue their studies. While in developing countries like Pakistan, university students have to face a lot of challenges including load-shedding, lack of accessibility of online gadgets and internet issues. Non-existence of proper training of teaching staff to deliver effective lectures through online gadgets to university students is also considered a barrier to online teaching (Farooq et al., 2020).

In this pandemic, online classes have brought a lot of improvement but at the same time, it has also brought a lot of difficulties for some students. University students take their lectures online from morning to afternoon, after which they have plenty of time to do their work and other activities. During this pandemic, students 'daily routine may get disturbed due to online classes. They spend a large time completing their assignments and projects. For academic achievement, every university student needs to manage their time effectively (Ahmed et al., 2019). They have to plan their time properly to learn the skills, knowledge, and abilities that are important for their future career.

Due to COVID-19, time management is another most common challenge faced by university students. It disturbs not only their educational system but also negatively impacts their personal and daily routine activities. In Pakistan, most of the university students are not satisfied with online learning while other students stated that it affects their daily routine awfully (Ali et al., 2020). Due to technology and internet issues, teachers were not able to deliver the online lectures properly to their students which took a lot of time for the students to understand the lectures. Lack of experiences of teachers towards technology may be the reason for the lack of proper use of students' time (Faroog et al., 2020). Another issue of students is that the period of a semester is very short to cover the course. A large amount of time is spent for completing the coursework and other long research work. All of this may increase the burden of education on students and affect their academic grades (Khawar et al., 2021). Effective management of time can increase productivity, boost confidence, and ensure the students better perform in their academic skills (Ahmad et al., 2019). By adequately managing time, students can also achieve good grades in their academic performance (Addams & Blair, 2019).

Due to COVID-19, students who did not perform well in online exams and did not manage their time effectively may cause stress that disturbs their health (Khawar et al., 2021). In the current world, most disturbing incident that effect not only day-to-day activities but also cause harmful effects on somatic and psychosomatic health of a person is COVID-19 (Aristovnik et al., 2020). Students of Higher Education are one of the most affected populations because of this virus. The pandemic brings a lot of challenges for them that directly or indirectly affect their physical and mental health (Faisal et al., 2021). Educational institutions remain closed to decrease the spread of this virus. All universities shifted their courses online. The exams they used to take in class now have to be taken online. Students were not satisfied with online classes and this change made it very difficult for them to study. Their studies and grades are affected a lot due to pandemics. All of this disturb the university students and they may get stressed (Khawar et al., 2021).

The global epidemic is putting a lot of pressure on students regarding their education and weakening of their mental health. These problems caused depression, anxiety, and other psychological issues among students. These psychological problems have a profound effect on the performance of the students due to which they cannot get good grades. In a lockdown, students have experienced great and bad emotions while continuing their studies (Zuniga et al., 2021). Lack of social interaction and sharing problems with their friends cause tremendous change and made students' academic life unstable. Student's satisfaction, their emotions, and their level of social engagement play a significant role in their academic achievement. Students' psychological well-being is influenced by their feelings, which has a direct influence on all aspects of their academic lives. As there is already a lot of learning pressure on the university students but due to COVID-19, they are more prone to develop mental illness.

Literature Review

All human beings go through different stages in their life span. The most important stage after adolescent is the adulthood stage. This is the stage by which an individual is physically and intellectually mature, financially stable, and starts their relations. Adulthood is mainly distributed in to three stages i.e. early, middle and late adulthood. Early adulthood is the stage in which individuals focus more on their career

development. A new stage called as emerging adulthood has also been introduced, encompassing the time period between the age of 18-25 years (Lally& Valentine, 2019). The emerging adulthood stage usually encompasses the university life. Students bring a lot of dreams, hopes and aspirations with them as they enter the university. The most common problems early adults faced during their transaction to mature living were related to academic qualification, work and financial instability, issues related to their home, and adjusting to cultural norms (Laitila et al., 2018). For university students, things are more complex and difficult as compared to college. Challenges and experiences faced in university can change the life course of students. The educational setting, teaching methods, academic stress, social interactions, aggressive behavior, and financial issues are some common problems faced by university students (Bibi et al., 2020). But in addition to that recently there is a current pandemic that has to make their life ups and downs. That pandemic is called the COVID-19 pandemic.

COVID-19 began in Wuhan, city of China in end of December, 2019. The virus spread so speedily not only in China; however also in many other countries; then it became a worldwide threat (Chahrour et al., 2020). It was declared a worldwide community health disaster of global concern by W.H.O. in end of January 2020 and a pandemic in mid of March 2020 (Cucinotta & Vanelli, 2020). Fever, dry coughing, fatigue and breathing difficulties are some common signs of COVID-19. This disease is transmitted from person to person by large respiratory droplets. The virus that causes COVID -19 infects people of all ages. The virus spread more rapidly in crowded places and closed contact settings. People who work outside and those who are studying in schools, colleges, and universities have faced many difficulties due to the corona virus (World Health Organization, 2020). The corona virus has greatly affected the education of university and college students. Talking about education, university students have to face a lot of issues regarding this pandemic because the entire course is different as compared to school and college. University life is a very important phase for students to learn new things and skills that are important for their walk of life. Because of quick spread of this disease, the government executed complete lockdown, restriction in movements; close all educational institutions and offices.

In present era, the internet is the largest network that connects billions of people to interact with others around the globe. People use the internet for multiple reasons including getting in touch with their close ones; and sharing information with others. A great change has also been seen in the education mode of university students (Manger, 2017). Online learning (e-learning) is the most common way through which students of university and teachers can interact with each other to complete the educational curriculum, submit their assignments, gives tests, and exams through the internet during this pandemic (Sangwan et al., 2020). It can facilitate both teachers and students to share their knowledge and express learning experiences. For university students, elearning is an innovative tool that creates more student-centered education, helps in informative practices, and offering new and more flexible approaches (Manger, 2017). Advantages of e-learning for university students during covid-19 is that; they can easily access the educational material when they want without missing their lectures and study the material whenever they are available in a day because there is no expiry date of the needed material on websites. On the other hand, the most common problems faced by almost every student in Pakistan are the minimum opportunity of internet, poor quality of internet, and expensive online devices e.g. computers, laptops (Zahra et al., 2020).

With allusion to declaration of new corona virus 2019 pandemic, all institutes around globe shifted to online learning. It was found that the online learning has negative effect on communication skills and mutual relationships of students which adversely affected their academic performance (Bolatov et al., 2020).Some students became socially isolated and faced mental health issues due to covid (Asanovet al.,2021). Significant relationship was found between students' preference towards face to face learning and struggle to adjust with online learning. Students' self-efficacy, motivation, attitudes and technology usage play an important role in reasoning commitment and educational achievement. Students were in favor of face-to-face learning instead of online learning. Those who were in favor of face to face learning make every effort to adjust with the online learning (Aguilera,2020).

Students faced various problems during online learning e.g. isolation, less motivation, understanding of content/reader and teacher-student communication gap (Alawamleh, et al., 2020). According to another research by Ramirezet. al. (2021), showed that the students were more exhausted and in general, felt more cynicism relative to other studies/databases. Transition to remote learning had implications that went beyond academics and affected social connections, motivation, and healthy behaviors of students.

Due to COVID-19, higher education institutions shifted to online learning. A study conducted by Aguilera (2020), discovered college students' insights of their adoption, use, and acceptance of emergency online learning. The results show how attitude, motivation, self-efficacy, and use of technology play a substantial role in the cognitive commitment and academic performance of students. It was also assessed that the participants preferred face-to-face learning over online learning. Results demonstrated that regarding attitude towards the educational delivery method, students' liking infers a positive attitude towards their selection. Online learning became a big challenge for students and cause physical and mental stress among them (Grubic et al. 2020).

A study conducted by Irawanet al. (2020), was to identify the impact of student psychology on online learning during the COVID-19 pandemic. The results indicate that students have started to get bored with online learning after the first two weeks of learning from home, and considerable anxiety on research subjects whose parents have low income, because they have to buy quotas to be able to participate in online learning, and mood/mood changes occur due to too many assignments and are considered ineffective by students.

Another research investigating how students spend their time during the period of quarantine, observe their access to remote learning, and measure their mental health status. The study found out that 59 percent of students have both an internet connection at home and a computer or tablet, 74 percent are engaging in some online or tele-learning, and 86 percent have done some schoolwork on the last weekday. Closure of educational institutes and social isolation are the two main problems students face. Some of them had mental health scores that point to depression (Asanovet al., 2021).

Objectives of the Study

Following research objectives were devised for this study.

- 1. To find out the hurdles and challenges of online learning faced by university students.
- 2. To find out anxiety level of university students for the COVID-19 pandemic period.
- 3. To examine the time management skill of university students during COVID-19time period.
- 4. To assess the relationship among online-learning, time management and self-anxiety of University students.

Research Question

What is the association among online learning, time management and self-anxiety for the university students? **Methodology**

Research Design

The cross-sectional research design was used to find out the relationship between online-learning, time management and self-anxiety of university students for the duration of COVID-19 pandemic.

Sampling Strategy and Sample

Stratified random sampling strategy was used to gather the data from Lahore College for Women University, University of Punjab, Government College University, University of Central Punjab and University of Management and Technology. The sample size used in this research study was 250 participants. The age range of sample (N=250) was 18 to 25 years consisting of equal number of male (n=125) and female (n=125) university students.

Research Instruments

In this study three standardized instruments were used to measure variables of study.

- 1. Test of e-learning related attitudes scale (developed by Zabadi& Alawi, 2016: reliability 0.877) was used to find out the hurdles and challenges of online learning faced by university students.
- 2. Time management behavior scale (developed by Macan& colleges, 1990: reliability 0.88) was used to examine the time management skill of university students during COVID-19.
- 3. Zung self-rating anxiety scale (developed by Zung, 1965: reliability 0.80) was used to find out anxiety level of university students for the period of COVID-19 pandemic.

It was the requirement of research to use above mentioned these three scales. Demographic information of respondents was also gathered.

Data Collection

Data was collected through Google form keeping in mind the current pandemic to increase the feasibility of the scale. The onlinequestionnaire was shared through WhatsApp and email with people, mostly the target group, to collect the data.

Data Analysis

Datawas analyzed through SPSS software version 21. Reliability tests and inferential statistics were applied to find out the results. In inferential statistic, correlation and regression were used.

RESULTS AND DISCUSSION

The data analysis for this research was carried out in three steps. In first step, the reliability analysis was carried out of three scales used in the study. In the second step, correlation analysis was carried out to find the relationships between the variables. In the last step, regression analysis was conducted to find prediction.

Table 1 Psychometric properties of th	e measures ((n=250)	
Variables	M	SD	A
Test elearning related attitudes	62.14	10.48	0.77
Self-rating anxiety	42.00	8.43	0.72
Time management behaviour	111.28	21.72	0.87
	1 10 .		C = 1 = 1, $A1 = 1$

Note. M= *Mean, SD*= *Standard Deviation, a*= *Cronbach's Alpha*

The table 1 indicates that all these three scales have high internal consistency.

Table 2

Summary of inter-correlation, mean, and standard deviation of test elearning related attitudes, time management behavior, and self-rating anxiety

diately							
Variables		1	2	3	4	5	6
1.Gender		-	-0.29***	-0.23**	0.11	0.14*	0.06
2.Age participants	of		_	0.09	-0.10	-0.11	0.02
3.Education				_	-0.09	-0.002	0.01
4.TeLRA					_	0.16**	0.23**
5.SAS						_	0.32**
6.TMBS							_
M		1.50	1.50	1.22	62.14	42.00	111.28
SD		0.50	0.50	0.41	10.48	8.43	21.72

Note. M= *Mean, SD*= *Standard Deviation, TeLRA*=*Test e learning related attitudes,*

TMBS = Time management behavior, SAS = Self-rating anxiety scaleThe table 2 indicates that online learning has a positive relationship with time management behavior and self-rating anxiety. That means according to the results, if a student has good time management skills, he/she will have high level of self-anxiety as well.

Table3							
Linear reg	ression on p	predictors of	self-rating an	xiety $(n=250)$))		
	Dependent variable						
	Self-rating anxiety						
Variables							
	В	SEB	В	\mathbb{R}^2			
					ΔR^2		
				0.11	0.10		
TeLRA	0.07	0.05	0.09				
TMB	0.11^{***}	0.02	0.29				
N.	ter TID	4- T-++ - f	.1	1	$T \mid (D - T)$		

Note: *TeLRA*= Test of elearningrelated attitudes, *TMB*= Time management behaviour

The table 3 indicates that time management behavior is highly significant predictor of self-rating anxiety. E-learning is not predicator of self-rating anxiety.

One of the most significant periods of human span is adulthood in which the individuals focuses more on their career and developed the essential skills that are important for their future. Most of the individuals in this stage start their higher education and set their goals to bring stability in their personal and social life (Arnett, 2021). The student life in higher education is completely changed as compared to college and school. Things become complicated and difficult for them to handle. The COVID-19 pandemic has carried different challenges and problems that were never seen before. These challenges have brought innumerable difficulties mainly for students. These issues have negatively affected their social, academic and personal lives as well (Bibi et al., 2020). The major cause in rise of these issues is the drastic change in mode of education adopted by universities. All universities replaced their traditional mode of learning with online learning to continue educational activities during pandemic situation. Most students face problems like internet issues, load-shedding, lack accessibility of technologies, and teaching mode (Farooq et al., 2020).

In the present research, the researcher highlighted major issues such as time management and online learning. Self-anxiety was the major factor highlighted among various mental health issues. All these difficulties were highlighted in COVID situation. The result of present study showed that online learning has a positive relationship with time management and self-anxiety. It means that if university students face

problems in their online learning and they have good management of time, their anxiety level may increase. University students usually have constant time table. They are generally provided with two to three months academic schedule which is rarely changed. Students attend lectures, submit assignments, prepare their test and give exams in time to achieve their desired goals and they have time to enjoy their personal life as well. The COVID-19 pandemic has turned their life ups and down that brought many drastic changes in university students' life. One of the major issues highlighted was the mode of online learning. E-learning has changed the entire mode of learning that had adverse effects on student's education and their time management. As discussed before, university students have constant time table they set time to balance their academic and personal activities. Due to current mode of learning, their management skills of time disturb a lot that cause high level of anxiety in students. Students try a lot to manage their tasks properly but the things are so unpredictable due to e-learning that they did perform their tasks properly in time. Due to this inadequate management of time, students feel stress and their anxiety level may increase that effect their mental health.

Usually if a person manages their time properly or if they have good time management skills; they will have less anxiety. A research study indicated by Zhang and colleagues indicated that if students are given proper time management training than they will have to face less anxiety in their personal, social and academic life. It emphasized that good time management skills lead to lower levels of anxiety in university students as they are managed everything well and complete all their tasks on time. Safdar et al., (2020) argued that online learning provides opportunities to the higher education students in their learning and reduce the economic barriers. Another research by Pascoe et al., (2019) supported the current study that most students face problems related academic stress. Results of the present study indicated that good time management was a predicator of self-anxiety. It means if students have good time management skills, they will have high self-anxiety.

This research was conducted during COVID-19 pandemic, this is the main reason that the results were different. Typically, students of higher education are more conscious about their work to complete in time but during pandemic, their daily routines disturb that is why they did not perform well. As there is no proper timing of taking lectures and study time, managing their time may also increase anxiety that cause stress among students.

Conclusion

It was concluded that most of the students of higher education face problems related to academic stress during the COVID-19 pandemic. Due to the emergency transition of traditional model of learning to online learning, most students show a positive attitude towards online learning but their management skills of time affect a lot due to lockdown. The workload has increased a lot on students which negatively affects their personal and social life. Poor time management is the significant cause of psychological problems among university students.

There are certain limitations of this study that includes, due to limited time and other restrictions, only 250 sample size was selected for the present research. The larger sample size would have given more appropriate and significant results. In future research, separate distinction between private and government university students may be made. That distinction might have revealed some more information on the issues faced by them. Only few demographic variables were used in the present study such as gender, age, education and university name. Other demographic variables such as family system, parentalage, education, occupation and economic background might have provided more information about the situation. In the COVID-19 context, only three main issues faced by university students were highlighted. It is suggested that other issues should be researched as well to understand the current situation of university students.

References

Adams, R. V., & Blair, E. (2019). Impact of time management behaviors on undergraduate engineering students' performance. *SAGE Open*, 9(1),1-11. Retrieved from https://doi.org/10.1177/2158244018824506

Adnan, M. & Anwar, K. (2020). Online learning amid the COVID-19 pandemic: Students' perspectives. *Journal of Pedagogical Sociology and Psychology*, *2*(1), 45-51. doi: 10.33902/JPSP. 2020261309

Aeon, B., Aguinis, H. (2017). It's about time: New perspectives and insights on time management. Academy of Management Perspectives, 31(4), 309–330.

Aguilera-Hermida, A. P. (2020). College students' use and acceptance of emergency online learning due to COVID-19. *International Journal of Educational Research Open*, *1*, Retrieved fromhttps://doi.org/10.1016/j.ijedro.2020.100011

Ahmad, S., Batool, A., & Choudhry, A. H. (2019). Path relationship of time management and academic achievement of students in distance learning institutions. *Pakistan Journal of Distance & Online Learning*, 5(2), 191-208.

Ahmed, H., Allaf, M., & Elghazaly, H. (2020). COVID-19 and medical education. *The Lancet infectious diseases*, 20(7), 777-778.

Ali, S. T., Wajid, H., Baig, S. N., & Baig, Q. A. (2020). Impact on Pakistani students' education and life pattern during Covid-19 pandemic. *Merit Research Journal of Medicine and Medical Sciences*, 8(11), 660-664.

Ali, W. (2020). Online and remote learning in higher education institutes: A necessity in light of COVID-19 pandemic. *Higher Education Studies*, *10*(3), 16-25.

Alawamleh, M., Al-Twait, L. M., & Al-Saht, G. R. (2020). The effect of online learning on communication between instructors and students during COVID-19 pandemic. *Asian Education and Development Studies*.https://doi.org/10.1108/AEDS-06-2020-0131

Al-Kumaim, N. H., Alhazmi, A. K., Mohammed, F., Gazem, N. A., Shabbir, M. S., &Fazea, Y. (2021). Exploring the impact of the COVID-19 pandemic on university students' learning life: An integrated conceptual motivational model for sustainable and healthy online learning. *Sustainability*, *13*(5), 1-20 (2546).

Aristovnik, A., Kerzic, D., Ravselj, D., Tomazevic, N., &Umek, L. (2020). Impacts of the COVID-19 pandemic on life of higher education students: A global perspective. *Sustainability*, *12* (20), 1-34.

Arnett, J. J. (2021). Emerging adulthood. In R. Biswas-Diener & E. Diener (Eds), *Noba textbook series: Psychology*(469-480). Champaign, IL: DEF publishers. Retrieved from http://noba.to/3vtfyajs

Akpinar, E. (2021). The effect of online learning on tertiary level students' mental health during theCOVID-19 lockdown. *The European Journal of Social & Behavioural Sciences*, 30(1), 52-62.

Asanov, I., Flores, F., McKenzie, D., Mensmann, M., & Schulte, M. (2021). Remote-learning, time-use, and mental health of Ecuadorian high-school students during the COVID-19 quarantine. *World development*, *138*, 1-9 (105225).

Bączek, M., Zagańczyk, M. D., Szpringer, M., Jaroszyński, A., & Wożakowska, K.B. (2021). Students' perception of online learning during the COVID-19 pandemic, *Medicine*, *100* (7), 1-6(24821). DOI: 10.1097/MD.00000000024821

Baloch, G. M., Sundarasen, S., Chinna, K., Nurunnabi, M., Kamaludin, K., Khoshaim, H. B., Hossain, S.F. & AlSukayt, A. (2021). COVID-19: Exploring impacts of the pandemic and lockdown on mental health of Pakistani students. *PeerJ*, *9*,1-15 (e10612).

Bibi, A., Saleem, A., Khalid, M. A., & Shafique, N. (2020). Emotional intelligence and aggression among university students of Pakistan: A correlational study. *Journal of Aggression, Maltreatment & Trauma*, 29(10),1189-1203.

Bolatov, A. K., Seisembekov, T. Z., Askarova, A. Z., Baikanova, R. K., Smailova, D. S., & Fabbro, E. (2021). Online-learning due to COVID-19 improved mental health among medical students. *Medical science educator*, *31*(1), 183-192.

Boundless. (2016). *Physical development in adulthood*. Retrieved from https://www.boundless.com/psychology/textbooks/boundless-psychology-textbook/human-development-14/early-and-middle-adulthood-74/physical-development-in-adulthood-287-12822/

Chahrour, M., Assi, S., Bejjani, M., Nasrallah, A. A., Salhab, H., Fares, M., & Khachfe, H. H. (2020). A bibliometric analysis of COVID-19 research activity: a call for increased output. *Cureus*, *12*(3), 1-8(e7357).

Chiu, T. K. (2021). Applying the self-determination theory (SDT) to explain student engagement in online learning during the COVID-19 pandemic. *Journal of Research on Technology in Education*, 1-17.

Connor, R., Wetherall, K., Cleare, S., McClelland, H., Melson, A., Niedzwiedz, C., Carroll, R., Connor, D., Platt, S., Scowcroft, E., Watson, B., Zortea, T., Ferguson, E., Robb, K. (2020). Mental health and wellbeing during the COVID-19 pandemic: Longitudinal analyses of adults in the UK COVID-19 mental health & wellbeing study. *The British Journal of Psychiatry, 218*, 1-17.

Cucinotta, D., & Vanelli, M. (2020). WHO declares COVID-19 a pandemic. *Acta Bio-Medica: Atenei Parmensis*, 91(1), 157-160.

Dale, A., Steven, T., Danielle, R., Mattson, C.& Ted, L. (2011). *Psychological aspects of pain*. Retrieved from https://www.sciencedirect.com/science/article/pii/B97814160377981000 3X

Faisal, R. A., Jobe, M. C., Ahmed, O., & Sharker, T. (2021). Mental health status, anxiety, and depression levels of Bangladeshi university students during the COVID-19 pandemic. *International Journal of Mental Health and Addiction*, 1-16.

Gaetjens, S. (2020). Dismal results from a print periodical usage study. *The Serials Librarian*, 79(1-2), 148-152. DOI:10.1080/0361526X.2020.1802394

Gay, L., Mills, G., Airasian, P. (2012). *Educational research: Competencies for analysis and applications* (10 ed.). Boston, MA: Pearson Education, Inc.

Gonzalez-Ramirez, J., Mulqueen, K., Zealand, R., Silverstein, S., Mulqueen, C., & BuShell, S. (2021). Emergency online learning: College students' perceptions during the COVID-19 pandemic. *College Student Journal*, *55*(1), 29-46.

Grubic, N., Badovinac, S., & Johri, A.M. (2020). Student mental health in the midst of the COVID-19 pandemic: A call for further research and immediate solutions. *Int J Soc Psychiatry*, 66(5), 517-518. DOI:10.1177/0020764020925108

Häggman-Laitila, A., Salokekkilä, P., & Karki, S. (2018). Transition to adult life of young people leaving foster care: A qualitative systematic review. *Children and Youth Services Review*, *95*, 134-143.

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. *Educause Review*, 27,1-12.

Hussein, E., Daoud, S., Alrabaiah, H., & Badawi, R. (2020). Exploring undergraduate students' attitudes towards emergency online learning during COVID-19: A case from the UAE. *Children and youth services review*, 119(C), 1-7(105699).

Irawan, A. W., Dwisona, D., & Lestari, M. (2020). Psychological impacts of students on online learning during the pandemic COVID-19. *KONSELI: JurnalBimbingan dan Konseling (E-Journal)*, 7(1), 53-60.

Jinalee, N., & Singh, A. K. (2018). A descriptive study of time management models and theories. *International Journal of Advanced Scientific Research and Management*, 3(9), 141-147.

Kalman, R., Macias Esparza, M., & Weston, C. (2020). Student views of the online learning process during the COVID-19 pandemic: A comparison of upper-level and entry-level undergraduate perspectives. *Journal of Chemical Education*, *97*(9), 3353-3357.

Khawar, M.B., Abbasi, M.H., Hussain, S., Riaz, M., Rafiq, M., Mehmood, R., Sheikh, N., Amaan, H.N., Fatima, S., Jabeen, F., Ahmad, Z., & Farooq, A. (2021). Psychological impacts of COVID-19 and satisfaction from online classes: Disturbance in daily routine and prevalence of depression, stress, and anxiety among students of Pakistan. *Heliyon*, *7*(5), 1-8(e07030).

Khalil, R., Mansour, A. E., Fadda, W. A., Almisnid, K., Aldamegh, M., Al-Nafeesah, A., ... & Al-Wutayd, O. (2020). The sudden transition to synchronized online learning during the COVID-19 pandemic in Saudi Arabia: A qualitative study exploring medical students' perspectives. *BMC medical education*, 20(1), 1-10.

Kisanga, D., Ireson, G. (2016). Test of e-Learning Related Attitudes (TeLRA) scale: Development, reliability and validity study, *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*, 12(1), 20-36.

Lally, M. & Valentine, S. (2019). *Lifespan development: A psychological perspective* (Second ed.). San Francisco, CA: Creative Commons Attribution-Noncommercial-Share Alike 3.0 unported (CC BY-NC-SA 3.0).

Lauren, T. (2020). *What is cross-sectional study?*. Retrieved from https://www.scribbr.com/methodology/cross-sectional-

study/#:~:text=Published%20on%20May%208%2C%202020,observe%2 0variables%20without%20influencing%20them.

Liu, C. H., Pinder-Amaker, S., Hahm, H. C., & Chen, J. A. (2020). Priorities for addressing the impact of the COVID-19 pandemic on college student mental health. *Journal of American College Health*, 1-3.

Manger, N. (2017). Construction and standardization of an attitude scale towards e-learning for college students of Sikkim. Retrieved from http://14.139.206.50:8080/jspui/handle/1/4730

Maqsood, A., Abbas, J., Rehman, G., & Mubeen, R. (2021). The paradigm shift for educational system continuance in the advent of COVID-19 pandemic: Mental health challenges and reflections. *Current Research in Behavioral Sciences*, *2*, 1-5 (100011).

Nasrullah, S., & Khan, M.S. (2015). The impact of time management on the students' academic achievements. *Journal of Literature, Languages and Linguistics*, 11, 66-72.

Pettie, M. (2020). *The top 10 benefits of time management*. Retrieved from https://lucemiconsulting.co.uk/benefits-of-time-management/

Rafiq, S., Iqbal, A., Rehman, S.U., Waqas, M., Naveed, M.A., Khan, S.A. (2021). Everyday life information seeking patterns of resident female university students in Pakistan. *Sustainability*, *13*(7), 1-14. https://doi.org/10.3390/su13073884

Rafique, G. M., Mehmood, K., Warraich, N. F., & Rehman, S. U. (2021). Readiness for Online learning during COVID-19 pandemic: A survey of Pakistani LIS students. *The Journal of Academic Librarianship*, 47(3), 1-10. doi: 10.1016/j.acalib.2021.102346

Rajab, M. H., Gazal, A. M., & Alkattan, K. (2020). Challenges to online medical education during the COVID-19 pandemic. *Cure us*, *12*(7), e8966. DOI:10.7759/cureus.8966

Sahu, P. (2020). Closure of universities due to corona virus disease 2019 (COVID-19): Impact on education and mental health of students and academic staff. *Cure us*, *12*(4), e7541. DOI:10.7759/cureus.7541

Safdar, M., Javed, N.M., & Amin, S. (2020). Use of internet for education learning among female university students of Punjab, Pakistan. *Universal Journal of Educational Research*, *8*(8), 3371-3380. DOI: 10.13189/ujer.2020.080809

Sangwan, A., Sangwan, A., & Punia, P. (2020). Development and validation of an attitude scale towards online teaching and learning for higher education teachers. *Association for Educational Communications & Technology*, 65,187–195.

Shah, K., Mann, S., Singh, R., Bangar, R., & Kulkarni, R. (2020). Impact of COVID-19 on the mental health of children and adolescents. *Cure us*, *12*(8), e10051. https://doi.org/10.7759/cureus.10051

Shafiq, A. (2021). *All board exams have been cancelled*. Retrieved from https://fsconline.info/all-board-exams-cancelled-and-student-will-be-promoted-education-news/

Shawaqfeh, M. S., Al Bekairy, A. M., Al-Azayzih, A., Alkatheri, A. A., Qandil, A. M., Obaidat, A. A., Al Harbi, S. &Muflih, S. M. (2020). Pharmacy students' perceptions of their distance online learning experience during the COVID-19 pandemic: Across-sectional survey study. *Journal of medical education and curricular development*, 7, 1-9.

Shoaib, M., Rasool, S., & Anwar, B. (2021). Evaluating research support facilities to university students duringCOVID-19. *Library Philosophy and Practice (e-journal)*. 4953, 1-18.

Singh, V., Thurman, A. (2019). How many ways can we define online learning? A systematic literature review of definitions of online learning (1988-2018). *American Journal of Distance Education*, *33*(4), 289-306.

Syahputri, V. N., Rahma, E. A., Setiyana, R., Diana, S., &Parlindungan, F. (2020). Online learning drawbacks during the Covid-19 pandemic: A psychological perspective. *EnJourMe (English Journal of Merdeka): Culture, Language, and Teaching of English*, 5(2), 108-116.

Turner, D. (2020). *Sampling methods in research design*. Retrieved from https://headachejournal.onlinelibrary.wiley.com/doi/abs/10.1111/head.13 707

Wieczorek, T., Kołodziejczyk, A., Ciułkowicz, M., Maciaszek, J., Misiak, B., Rymaszewska, J., & Szcześniak, D. (2021). Class of 2020 in Poland: Students' mental health during the COVID-19 outbreak in an academic setting. *International journal of environmental research and public health*, *18*(6), 2884. Retrieved from https://doi.org/10.3390/ijerph18062884

World Health Organization. (2020). *Key messages and actions for COVID-19 prevention and control in schools*. Retrieved from https://www.who.int/publications/m/item/key-messages-and-actions-for-covid-19-prevention-and-control-in-schools

Zahra, F., Gul, A., Iqbal, A., Ghafoor, T., & Ambreen, A. (2020). The impact of COVID-19 on rural areas students of Pakistan: Moderating role of HEC policy and internet service. *Asian Journal of Contemporary Education*, *4*(2), 69-79. doi:10.18488/journal.137.2020.42.69.79

Zhang, F., Liu, J., An, M., & Gu, H. (2020). The effect of time management training on time management and anxiety among nursing undergraduates. *Psychology, health & medicine, 26*(9), 1073-1078.

Zuniga, C. C., Pego, L., Escamilla, J., & Hosseini, S. (2021). The impact of the COVID-19 pandemic on students' feelings at high school, undergraduate, and postgraduate levels. *Heliyon*, 7(3), 1-11.

Hassan, K., Zaheer, H. & Khalid, S.(2021). Relationship Among Online Learning, Time Management and Self Anxiety of University Students During COVID-19. *Pakistan Journal of Distance and Online Learning*, 7(2), 69-86.