# Effects of COVID News on Undergraduate Students' Mental Health in Pakistan

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#### **Abstract:**

This study aims to explore the effects of covid news on the mental health of Undergraduate Students as a qualitative analysis. The study was conducted in Islamabad, Pakistan, whereas 20 undergraduate students, from the top 10 universities, where one male and one female were included from each university. Structured Interviews were conducted on the sample, through audio and video calls. It was observed and concluded through the study that covid news does have an adverse effect on the mental health of undergraduate students, as it has been evident that the students felt stressed, fearful, and uncertain. The results also reveal that despite being frustrated over their studies, students eventually adapt to the changes around them, and hence the performance aspect is not affected intrinsically. The study recommends that universities should introduce platforms for online counseling available 24/7, give weekly counseling sessions, and update students with authentic information from time to time.

**Keywords**: covid, news, mental health, undergraduate students

#### I. Introduction

COVID (coronavirus disease) is a pandemic that has affected the whole world. It was seen and authoritatively reported as a causal mean or agent for a condition frequently bringing about signs of flu, fever as well as breathlessness (Aslam et al., 2020). It brought the deaths of many, and fear for the remaining. This a virus that has consumed not only the social lives and physical well-being of people but also their psychological health. Nowadays, all that is broadcasted on the news channel is information about Corona Virus, how many people have died, how many are affected, and how many are recovering. News, of lockdown, positive

cases, and standard operating procedures due to this pandemic, is shared excessively on social media and news channels.

This overwhelming information related to the outbreak has been termed as "infodemic" by WHO. Continuing to dominate the news headline throughout the globe, as of 2020 late January, the tone used to depict the virus is likewise enhancing the dread in numerous nations with affirmed cases. Expressions, e.g., "lethal virus", "global health crisis", as well as "pandemic" are bringing out negative conclusions and feelings among numerous individuals from the overall world (Aslam et al., 2020). The constant bombardment of news develops a

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sense of fear and uncertainty in its viewers and listeners. Above all, the effect of vulnerability and dread flourish within the sight of sensationalized misleading statements as a tragic job frequently played by media (Friedman et al.,2009). Through this study, we aim to analyze how news related to covid affects mental health.

Mental health can be defined as the psychological, emotional, along with the social well-being of an individual. Being the core of overall wellbeing, it influences our acts, feelings, and thinking. (Centers for Disease Control and Prevention, 2018). It is significant because controls it management of stress, interaction with and makes people, decisions about everything. Its importance is not particular to any one stage of life rather throughout the course of life, from childhood to old age, mental health is of paramount importance. ("MentalHealth.gov",2020).

Mental health is a state of mind that is subjective to every individual as it is a personal matter. While referring to a person's mental health, it is necessary to differentiate between actions and attributes. What qualifies as good mental health varies according to tenure, location, culture along with social expectations in various areas. No single, universally accepted standard of mental health exists, it is the basic core of human values. (Jahoda, 1958).

A lot many things affect our mental health, social ties, for instance, play a favorable role in the maintenance of psychological wellbeing. Protective effects of social ties aid in a healthy mental state. However, these social protective ties are not evenly distributed among different groups in

society as females are less supported through social ties as compared to males, which might induce distress in women (Kawachi& Berkman, 2001).

Opposite to the popular belief that only some people get affected by mental illness, it is a very common issue, and a lot of people, belonging to any age group, suffer from mental health problems. Various components like biological factors e.g. genetic makeup, disturbed brain biochemistry, life events, mostly abuse or trauma, and family background of mental health issues are the leading causes for mental illness ("MentalHealth.gov", 2020).

#### **II. Literature Review**

Mental health being a whole phenomenon is nothing short of a wide array of possibilities to be defined and inferred upon. Recently, viewed as an important aspect of human beings and their living. In this regard, various researchstudies have conducted. As the World Health Report states, mental health has various aspects such as that wellbeing of an individual, perceived and comprehensive self-efficacy, autonomy as well as competence and intergenerational independence as well as emotional and intellectual self-actualization, etc. It pretty much, confirms the complexity and broadness of mental health than just merely referring to a state where mental disorders are absent. Mental health isn't just comprised as related to the brain but a human being as a social animal, it talks about the overall health (WHO, 2001).

It specifically plays an important role in the period between an individual's later level of adolescence as well as their early adulthood. It also comes to the abilities to discriminate

amongst the elements relevant and social functioning roles as well as aspects of social behavior, including those that may be considered as being troublesome. Culture also influences the processes mechanisms through which various risks along with resiliency factors modify the prevalence, journey of the issues, and results or after-effects of different mental-health conditions. It affects procedures through which mental health can be enhanced or promoted by circumstances initiated through various cultural conditions (Bass et.al., 2012).

Despite more emphasis on Mental health, there is less information available on what factors cause any problems in it. There is adequate information present that indicates that most of the people having issues with their mental stability initially experienced during their young age. Kessler et. al. (2007) stated that most of the mental health problems emerge in the tenure of age before 18 whereas the period ranging from 18 years to 25 years is a specifically vulnerable developmental phase in an individual's life. It mostly clashes with their emergence in entering university. In such a case, the younger individuals are the most prone to the occurrence of conditions of mental health during their metamorphosis from a child to an adult. Due to such societal and educational stress along with pressure from family as well as the surrounding problems related to behavior and mental health are commonly found in university going Students.

In fact, due to the prior presence of any mental health issues an individual's state may be further aggravated, and along with that adaptation to a whole new environment of university hinders their capacity to focus and affects them academically. This issue is a global pandemic in itself as it affects the globe. Reportedly, (National College Health Assessment II, 2014) the number of American students experiencing depression to such an extent that it was difficult for them to function normally was 32.6 percent, whereas 54 percent of them experienced an overwhelming amount of anxiety but it was reported by 8.1 percent to experience suicidal tendencies. More recent research reported the rate of depression escalated to approximately 36 percent, increasing by almost 59 percent, whereas there was an approximate of 10 percent increase of severe suicidal tendencies (National College Health Assessment II, 2015).

It is majorly the youth whose self-esteem, socializing interaction, along with their risk of injuries and initiating harm to themselves, is affecting the state of their mental health (Bradshaw, Waasdrop & Leaf, 2012). Such issues with Mental health have an impact on young adults and other individual's growth, maturation as well their quality of living and their ability to take part in their surroundings or community (Fisher & Mello, 2011). As stated by the World Health Organization, such negative elements of behavioral and mental state lie at the root and initiate poor health of the youth in underdeveloped and developed countries (WHO, 2008). Now such issues also directly affect the academic capacity of individuals, such as stated by Bradshaw, O'Brennan, and McNeely (2008), many academic deficiency or issues can arise including certain problems such as that

of poor engagement and attendance, inadequate academic or educational performance, disabilities during learning, disciplinary issues. These may even lead to the drastic step of dropping out from their school or other educational institutes.

Corona Virus or COVID -19is a pandemic that has struck throughout the globe. It is a group of viruses that affect both animals and human beings as stated by WHO (2020). The initial outbreak of this virus occurred in China's province Wuhan, hence it has been affecting almost all of the countries globally ever since. As reported globally on 6th July (2020), there are 11,327,790 confirmed cases of CoVid-19, with a reported 532,340 deaths. Out of which 231,818 confirmed cases with 4,762 deaths on 6th July have been reported from Pakistan, whereas many are still undiagnosed. Many countries have taken action to diminish and retrench the spread of COVID-19 through taking extensive protocols such as implementing state of lockdowns, practicing social distancing, and acting upon voluntary selfisolation. But despite these preventive steps being taken and many other changes, the disease still tends to have a catastrophic and harmful influence on mental health (Haider, Tiwana& Tahir, 2020).

Listening to such news, of a new pandemic that is brutal automatically starts the game of mental chaos where, distress, stress, fear, and mostly uncertainty come to the top shore and would be reflected through the actions of those experiencing them. In such a state any type of news, through any platform such as social media, TV or articles aggravates the sense of panic and increases the terror as well as uncertainty in people

who listen to them. The pandemic is somewhat giving birth to another one, a pandemic of a much more drastic nature which is the "Mental Health Global Pandemic". Reviewingprior literature, it is indeed seen that there has been a negative effect on an individual's mental health when it comes to the pandemic. This can be further supplemented by Mak, Chu, Pan, Yiu, and Chan (2009) who stated that at the time of S.A.R.S an abbreviation for Severe Acute Respiratory Syndrome, outbreak in Hong Kong during the year 2003, the phase of the illness was often referred as a catastrophe or crisis of Mental Wellbeing, which induced morbidities that psychiatric and somewhat permanent such as Post-TraumaticStress Disorder or PTSD and Chronic Depression.

Now, in the words of Aristotle who described human beings as social animals, there is no doubt when it comes as the fuel that lights a human being's life functioning, their social role, relationships. Despite the fast pace of the 21st Century or Generation Z as they call it, where social media and wireless connections are present for active communication such as Zoom, WhatsApp, and much more. As nothing can make up for the need for Human Interaction that a human being yearns. It was observed that the risk and prevalence of subsequent or occurring depression can be predicted through observing, understanding, and individual's ability to socialize with self, friends, family, and their surroundings (Teo et.al, 2015).

Haider et.al, (2020) state that it is feasible for individuals to experience temporary or short-term symptoms of depression that may

range from being mild to moderate during the present situation. Furthermore, there are higher chances of alertness and care associated with taking hygienic measures focusing on cleanliness. It also partnered up to the fear of illness and uncertainty which may aggravate anxiety levels more as compared to the normal situation. There is no doubt that the pandemic can have both long- and short-term implications for issues of mental health and others such issues as of substance abuse. that Now. individuals who experience mental illnesses and issues with substance abuse disorders before the pandemic, and are newly affected, might probably opt and need for services to aid their mental and substance abuse issues (Panchal et.al, 2020).

It is a natural observation that those with underlying and prior existing issues like financial, physiological, or related to mental health, are at a higher risk of having more issues due to the vulnerable set of baggage they have entered the pandemic, COVID-19. The major reason for that could be the stress in them already inducted to adapt and function, may be aggravated as they start to overthink and get absorbed by their surroundings. And being worrisome for the future especially in case of young adults as they are just on the peak of starting their professional and educational life as well as trying to do well in personal life too.

It was observed in research conducted on people of China during COVID-19 where a higher prevalence of depressive symptoms and GAD which is an anxiety disorder were observed in younger people. It affirmed that younger individuals mostly young adults, and frontline health staff workers are the

most vulnerable in such a case. At least one three individuals reported experiencing anxiety-related issues, whereas one out of five reported having issues with their sleeping patterns. Whereas depressionrelated symptoms and issues seem to be a problem that is prevalent nationwide (Huang & Zhao, 2020). As stated by Shigemura, Ursano, Morganstein, Kurosawa, Benedek (2020), factors such as being moody, lethargy, and lower level of energy with attention issues and lack of interest in normal life activities may enhance and increase symptoms of depression even more. Kumar and Nayar (2020) in their research study on how Corona Virus related to certain mental health issues observed that individuals are indeed being misled through false information. Being feeling burdened due to a variety of rumors that are not verified or from authentic sources. Hence, the presence of such a variety of rumors induces emotions such as fear, terror, uncertainty, anxiety, and stress due to the abrupt, and sudden nature of news reports available about the pandemic. In countries like India, the majority of the individuals have exposure to virus-positive patients along with those who have been traveling abroad. But, due to the stigma and out casting factor many of the individuals who have doubts regarding their condition fail to come forward and get tested. They are not treated usually and isolated from society, this is also because of their fear of being blamed, isolated, and ill-treated and getting parted from their loved ones or family. As receiving bad news generally harms mental health such as it had been observed in past research that negative news headlines and

TV programs tend to negatively influence the mood of an individual. It amplifies their anxiety-related issues, personal concerns, and worries that are both relevant to their existence and the content of the information being shared in the news (Davey & Johnston, 1997).

Lastly, it is no rocket science that any pandemic even the covid affects educational capabilities of students. A prior study done on the Katrina hurricane had socially impacted the performance and wellbeing of Students with the Educational Institutions. It was observed that the students often experienced a lack of manifestation of concentration and depressive symptoms during the initial months after the storm (Picuo& Marshall, 2007). Many countries going through the pandemic decided upon the closure of educational institutes such as schools. colleges, and universities, etc. The mode of teaching is progressively leading to being being implied online, upon immeasurable and uncommon type of scale. Whereas the majority of the examination and assessments have been decided to be canceled (Pasha, 2020). Almost one hundred and ninety countries, including Pakistan, have decided upon short term closure of the institution to constrict the further outbreak of the coronavirus pandemic (Ullah., 2020). But at the time of pandemic lack of facilities may also be disruption in studies, students of rural areas do not have the aims to learn remotely and engage in online classes when it came to education. Also stating that overlooking the absence and corroboration of socialization, internet connectivity issues, nuisance, poor quality of progressive

learning, immaturity, created problems to the acquisition of independent and relevant skills among young children and students. Perhaps the students of institutions leaning towards the elite urban nature are likely to be having an instructive advantage when it comes to educational learning as compared to the individuals who attend educational institutions that fall under the public sector. Generally, those who reside or belong to rural areas. Hence all these studies show a direct link between the presence of pandemic, and its news on the mental health of individuals, specifically on the young adults.

#### III. Context of the Research

Taking inspiration from such a varied palate of research and prior studies, it was observed the element of Mental Health extremely rare in the description. It is also observed less qualitative studies have been conducted upon the relationship of mental health to the presence of any pandemic like the current outbreak of COVID-19. Hence, this research study aims to explore the effects of News related to COVID-19 on the mental health of university going students. So, the context of this study is based upon exploring mental health as a basic term in the state of the current pandemic and looking at it when news related to the pandemic are disclosed.

#### IV. Data and Analysis

For this study, data was collected from a sample of 20 undergraduate students studying in the prominent 10 universities in Islamabad, Pakistan. The respondents taken were decided to be only undergraduates as they are much thinking about this pandemic than senior students. One male and one

female undergraduate student were chosen as the sample from each university. Whereas the nature of the whole study is qualitative, hence the data was collected through conducting interviews which include 10 structured open-ended questions including the basic demographics, which were asked through audio as well as video calls.

Due to the descriptive manner of this study, thematic analysis has been implemented on six of the questions asked, as the initial four were inclusive of basic details such as demographics. Where transcription of the outcomes was done, followed by the aspect of coding to highlight the major themes that

Table No. 1
Frequency of themes used per participant

Participants	Stress	Uncertainty	Fear	Main Source Of News (Social Media)	Awareness Of COVID- 19	Frustration About Studies	Paranoia	Disappointment In People And Government
					^			
1	2	0	1	1	2	2	1	0
2	3	2	4	1	2	1	2	0
3	1	0	1	1	1	0	0	1
4	0	1	0	1	3	1	0	1
5	1	1	2	1	1	3	1	2
6	2	1	2	1	3	2	1	0
7	1	0	3	0	1	0	0	0
8	2	1	1	0	3	1	3	1
9	1	2	0	0	3	1	0	2
10	1	0	1	1	2	1	2	3
ll	1	1	2	0	1	2	0	0
12	1	1	1	0	3	0	0	1
13	1	1	0	0	1	2	1	2
14	2	1	1	1	2	3	0	1
15	2	0	4	3	3	0	1	0
16	1	1	2	1	1	6	1	1
17	2	1	1	0	2	4	0	0
18	2	1	1	1	3	0	2	1
19	2	1	1	1	2	1	0	0
20	0	2	1	1	3	0	0	0

are recurrent in the responses with the most significant in terms of importance. A total of eight main themes have been highlighted and explored throughout the study, such as:

- Stress
- Uncertainty
- Fear
- Main Source of News (Social Media)
- Awareness of COVID-19
- Frustration About Studies
- Paranoia
- Disappointment in People and Government

Table No. 2
Frequency of Themes Used Per Response

Themes	What Do You Know About Mental Health?	What Do You Know About Corona Virus In Pakistan?	Or See News Related To		Precautions Do You Take Whenever You Listen To covid News?	About COVID-
Stress	1	2	1	9	2	7
Uncertainty	1	4	0	5	0	3
Fear	0	3	0	7	0	1
Main Source Of News (Social Media)	0	0	13	0	0	0
Awareness About CoVid- 19	0	20	0	1	13	1
Frustration About Studies	0	0	0	0	0	9
Paranoia	0	1	0	1	1	1
Disappointment In People And The Government	0	1	0	2	0	0

#### V. Discussion

#### **Stress**

The first major theme that rose as being an essential one was stress experienced by everyone. Stress about what is happening and what is going to happen. The theme of stress has been used on so many occasions, that almost all the participants responded with feeling stress less or more on being asked each item or question. As seen with reference to Table No.1 above, 18 out of 20 participants used the theme of stress throughout their interview, where the highest frequency recorded was 3. Whereas, with reference to Table No.2 all the questions were responded with the theme of stress where the response to the item/ question "What Effects Does Listening or Hearing About COVID-19 Has On Your Studies?" was the highest, having a frequency of 7, and the lowest frequency was that of 1. Hence, proving that news states regarding the current pandemic of COVID-19 does indeed induce a sense of stress.

#### **Uncertainty**

Even though media both in the form of social media, newspapers, or TV are constantly providing news and insight onto the COVID. There is no authentic or sure information about when the pandemic will end. How the treatment will work along with the management of life in synchronization with pandemic which is inculcating uncertainties in students. Uncertainties may be regarding self-existence or even related to external factors. Concerning Table No.1 above, 15 out of 20 participants answered

under the theme of Uncertainty, where the highest frequency was that of 2. Whereas, about Table No.2, the response for 4 out of 6 items/questions came under the theme of Uncertainty where the highest frequency of 5 for the item of "What Do You Feel After Listening To COVID-19 News?". Hence, showing that although not as strong as the presence of stress, uncertainty does prevail as one of the major themes of responses.

#### **Fear**

No doubt listening to news and hearing stories about people getting affected by this virus or the chaotic death rates being presented make students fearful themselves, their future, and their loved ones. Regarding Table No.1 above, 17 out of 20 participants have responded under the theme of Fear, where the highest frequency recorded is that of 4. Whereas, concerning Table No.2, it is observed that only 3 out of 6 items were responded under this theme, where it is seen that the highest frequency under the theme of Fear is 7, in response to the item "What Do You Feel After Listening to COVID-19 News?", making it evident that participants mostly feel fearful after listening to the covid news.

## Main Source of News (Social Media)

Social media as the dominant one source hence, the reason why it is taken as a key theme. The response under this theme is inclusive of both the bad and the good as some people reported it as being a source of depression while some related social media as being a source of getaway or happiness. Helping us deduce that the nature of news and how it is presented, strongly affect the

emotions of the listener/viewer. As seen in Table No.1, 13 out of 20 participants responded under this theme, where the highest frequency was that of 4. Whereas a reference to Table No.2, the responses given under this theme was only for one item, "Where Do You Hear or See News Related to Corona Virus?" that too having a frequency of 13. Shows that the majority chose social media as their source of news related to COVID.

#### **Awareness of COVID-19**

All the participants knew that COVID is a contagious and deadly disease that is on the peak of the outbreak, spreading like wildfire. But on the other hand, there has been also adaptation to the situations by many of the respondents. As seen in Table No.1, all of the 20 participants responded under the theme, whereas the highest frequency being, 3. Whereas seen in Table No.2, only 4 out of 6 items were responded under this theme, where the highest frequency 20 was recorded in response to the item, "What Do You Know about Corona Virus in Pakistan."

#### **Frustration about Studies**

In such a current situation, it is normal to feel frustrated. It was reported by most students that initially whenever they heard the news about COVID, they used to panic, be frightened, and overindulge in taking precautions. But with the passage of time, they are adjusting and getting used to the changes personally and academically. COVID news affects the focus of students on their studies as it causes stress when comorbid with the new mode of teaching. As seen in Table No.1, 16 out of 20 participants responded under this theme, with the highest

frequency of 6. Whereas, in Table No.2, it is seen that the only response under this theme was responded onto the item of "What Effects Do Listening or Hearing about COVID-19 Has on Your Studies?" Hence, making it evident that even though participants are frustrated is not that high.

#### Paranoia

Hearing the news makes students paranoid about them or their loved ones. Many students reported that it initially made them obsessive about precautions with the fear of getting the virus. Table No.1 shows, half of the participants responded under this theme, frequency of 3 being the highest. Whereas Table No.2 shows 4 out of 6 items were responded under this theme, with a consistent frequency of 1. It shows the results of paranoia being induced is somewhat neutral.

### Disappointment in People and Government

Many Participants stated that whenever they hear about an increase in cases and death rates, they feel disappointed about people who are not taking care of SOPs and putting their lives in danger. Table No.1 shows 11 out of 20 participants responded under this theme with the highest frequency of 3. Whereas Table No.2 shows only 2 items had the response of this theme. It shows that many are disappointed over the current situation.

#### VI. Conclusion

There is no doubt that the current state of COVID-19 is chaos, affecting mental health in many ways proving to be a current time for undergraduate students who already have the pressure in their academic lives. Being

alone and studying during such a time is hard to manage. Through the study, it is proven that COVID news does affect the mental health of undergraduate students, as throughout, the research it is evident that the feeling of stress is common among all the students, no matter what the root cause is, each student feels stressed whenever it comes news related to COVID. Along with that throughout the research, it also became evident that despite many sources, Social Media is mostly preferred by undergraduate students as a source of news. Despite students feeling fearful, uncertain for the most part, it is seen that one way or another they eventually adapt to their surroundings and try to make up for the progress, hence the frustration regarding studies is not that intrinsic.

#### VII. Recommendations

The major recommendation would be, for the university officials, or the management of HEC, they shall introduce an online or on text platform to manage the stress, fear, or other issues faced by students. Where the students can message or contact 24/7 in case of any issues, and they shall be given weekly counseling sessions and inquired about mental health through professionals. Lastly, the government or other sectors working on education such as HEC should inform through the university regarding monthly updates of the closure or opening of institutions or develop a program where they keep on informing students about official changes in the academic schedule.

#### References

Aslam, F., Awan, T. M., Syed, J. H., Kashif, A., & Parveen, M. (2020).

Sentiments and emotions evoked by news headlines of coronavirus disease (COVID-19) outbreak. *Humanities and Social Sciences Communications*, 7(1). Doi: 10.1057/s41599-020-0523-3

Bradshaw, C., Waasdrop, T. E., & Leaf, P. (2012). Effects of School-Wide Positive Behavioral Interventions and Supports on Child Behavior Problems. *Pediatrics*, *130*(5). doi:10.1542/peds.2012-0243d

Bradshaw, C. P., O'Brennan , L. M., &Mcneely, C. A. (2008). Core competencies and the prevention of school failure and early school leaving. New Directions for Child and Adolescent Development, 2008(122), 19-32. doi:10.1002/cd.226

Eisenberg, D., Hunt, J., & Speer, N. (2012).

Help Seeking for Mental Health on
College Campuses: Review of
Evidence and Next Steps for
Research and Practice. Harvard
Review of Psychiatry, 20(4), 222232.

Facing mental health fallout from the coronavirus pandemic. (2020, May 29). Retrieved from <a href="https://www.who.int/news-room/feature-stories/detail/facing-mental-health-fallout-from-the-">https://www.who.int/news-room/feature-stories/detail/facing-mental-health-fallout-from-the-</a>

doi:10.3109/10673229.2012.712839

Fisher, J. R., & Mello, M. C. (2011). Using the World Health Organizations 4S-

coronavirus-pandemic

- Framework to Strengthen National Strategies, Policies and Services to Address Mental Health Problems in Adolescents in Resource-Constrained Settings. *International Journal of Mental Health Systems*, 5(1), 23. doi:10.1186/1752-4458-5-23
- Friedman, S. M., Dunwoody, S., & Rogers, C. L. (2009).Communicating Uncertainty.Retrieved from https://books.google.com.pk/books/about/Communicating\_Uncertainty.html?id=U6hBvlstpP4C
- Haider, I. I., Tiwana, F., & Tahir, S. M. (2020). Impact of the COVID-19 Pandemic on Adult Mental Health. *Pakistan Journal of Medical Sciences*, 36 (COVID19-S4). doi:10.12669/pjms.36.covid19-s4.2756
- Huang, Y., & Zhao, N. (2020). Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 epidemic in China: A web-based cross-sectional survey. *Med R Xiv*. doi:10.1101/2020.02.19.20025395
- Jahoda, M. (1958). Current concepts of positive mental health. *Joint Commission on Mental Health and Illness Monograph Series*, 1. Doi: 10.1037/11258-000
- Jiao, W. Y., Wang, L. N., Liu, J., Fang, S.F., Jiao, F. Y., Pettoello-Mantovani,M., &Somekh, E. (2020). Behavioraland Emotional Disorders in Children

- during the COVID-19 Epidemic. *The Journal of Pediatrics*, 221, 264-266. doi:10.1016/j.jpeds.2020.03.013
- Johnston, W. M., & Davey, G. C. (1997). The psychological impact of negative TV news bulletins: The catastrophizing of personal worries. *British Journal of Psychology*,88(1), 85-91. doi:10.1111/j.2044-8295.1997.tb02622.x
- Kaur, D., & Bashir, L. (2015). Impact of Stress on Mental Health of Students: Reasons and Interventions. Retrieved from <a href="https://www.researchgate.net/publication/326710272">https://www.researchgate.net/publication/326710272</a> Impact of Stress on <a href="mailto:Mental\_Health\_of\_Students\_Reasons\_and\_Interventions">Mental\_Health\_of\_Students\_Reasons\_and\_Interventions</a>
- Kawachi, I., & Berkman, L. F. (2001).

  Social Ties and Mental

  Health. Journal of Urban Health:

  Bulletin of the New York Academy of

  Medicine, 78(3), 458-467.

  doi:10.1093/jurban/78.3.458
- Kumar, A., &Nayar, K. R. (2020). COVID 19 and its mental health consequences. *Journal of Mental Health*, 1-2. doi:10.1080/09638237.2020.1757052
- Lancet, T. (n.d.). The Lancet Psychiatry:
  Study finds few immediate mental
  health effects of COVID-19, but
  longer-term impact must be
  considered. Retrieved from
  <a href="https://www.eurekalert.org/pub\_releas">https://www.eurekalert.org/pub\_releas</a>
  es/2020-05/tl-pss051820.php

- Leighton, S., & Dogra, N. (2009). Defining mental health and mental illness.
- Mak, I. W., Chu, C. M., Pan, P. C., Yiu, M. G., & Chan, V. L. (2009). Long-term psychiatric morbidities among SARS survivors. *General Hospital Psychiatry*, 31(4), 318-326. doi:10.1016/j.genhosppsych.2009.03.0 01
- Mclafferty, M., Lapsley, C. R., Ennis, E., Armour, C., Murphy, S., Bunting, B. P., . . . O'Neill, S. M. (2017). Mental health, behavioural problems and treatment seeking among students commencing university in Northern Ireland. *Plos One*, *12*(12), 1-14. doi:10.1371/journal.pone.0188785
- Mental disorders. (2009, November 28).

  Retrieved from

  <a href="https://www.who.int/news-room/fact-sheets/detail/mental-disorders">https://www.who.int/news-room/fact-sheets/detail/mental-disorders</a>
- Mental health in emergencies. (2019, June 11). Retrieved from <a href="https://www.who.int/news-room/fact-sheets/detail/mental-health-in-emergencies">https://www.who.int/news-room/fact-sheets/detail/mental-health-in-emergencies</a>
- Mental Health. (2018, January 26).

  Retrieved from 
  <a href="https://www.cdc.gov/mentalhealth/ind">https://www.cdc.gov/mentalhealth/ind</a>
  <a href="mailto:ex.htm">ex.htm</a>
- Nirmita Panchal, R., & 2020, A. (2020, April 21). The Implications of COVID-19 for Mental Health and Substance Use. Retrieved from

- https://www.kff.org/coronaviruscovid-19/issue-brief/the-implicationsof-covid-19-for-mental-health-andsubstance-use/
- Panchal, N., Kamal, R., Orgera, K., Cox, C., Garfield, R., Hamel, L.,...Chidambaram, P. (2020, August 21). The Implications of COVID-19 for Mental Health and Substance Use. Retrieved from <a href="https://www.kff.org/coronavirus-covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/">https://www.kff.org/coronavirus-covid-19-for-mental-health-and-substance-use/</a>
- Pasha, Z. (2020, May 12). COVID-19's impact on education. Retrieved from <a href="https://nation.com.pk/13-May-2020/covid-19-s-impact-on-education">https://nation.com.pk/13-May-2020/covid-19-s-impact-on-education</a>
- Picou, J. S., & Marshall, B. K. (2007).

  Social Impacts of Hurricane Katrina
  On Displaced K–12 Students And
  Educational Institutions In Coastal
  Alabama Counties: Some Preliminary
  Observations. Sociological
  Spectrum, 27(6), 767-780. Doi:
  10.1080/02732170701534267
- Q&A on coronaviruses (COVID-19). (2020, April 17). Retrieved from <a href="https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/q-a-coronaviruses">https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/q-a-coronaviruses</a>
- Salman, M., Asif, N., Mustafa, Z. U., Khan, T. M., Shehzadi, N., Hussain, K., . . . Khan, M. T. (2020). Psychological

Impact of COVID-19 on Pakistani University Students and How They Are Coping. *Med R Xiv*. doi:10.1101/2020.05.21.20108647

- Shigemura, J., Ursano, R. J., Morganstein, J. C., Kurosawa, M., &Benedek, D. M. (2020). Public responses to the novel 2019 coronavirus (2019-nCoV) in Japan: Mental health consequences and target populations. *Psychiatry and Clinical Neurosciences*, 74(4), 281-282. doi:10.1111/pcn.12988
- Soland, J., Kuhfeld, M., Tarasawa, B., Johnson, A., Ruzek, E., & Liu, J. (2020, May 27). The impact of COVID-19 on student achievement and what it may mean for educators. Retrieved from <a href="https://www.brookings.edu/blog/brown-center-chalkboard/2020/05/27/the-impact-of-covid-19-on-student-achievement-and-what-it-may-mean-for-educators/">https://www.brookings.edu/blog/brown-center-chalkboard/2020/05/27/the-impact-of-covid-19-on-student-achievement-and-what-it-may-mean-for-educators/</a>
- Teo, A. R., Choi, H., Andrea, S. B., Valenstein, M., Newsom, J. T., Dobscha, S. K., & Zivin, K. (2015). Mode of Contact with **Types** Different of Social Relationships Predict Depression in Older Adults? Evidence from a Nationally Representative Survey. Journal of the American Geriatrics *Society*, 63(10), 2014-2022. doi:10.1111/jgs.13667
- Ullah, D. (2020, May 7). COVID-19 and Education: Unequal learning loss.

- Retrieved from <a href="https://www.pakistantoday.com.pk/20">https://www.pakistantoday.com.pk/20</a>
  20/05/07/covid-19-education-unequal-learning-loss/
- What Is Mental Health? (2020, May 28).

  Retrieved from <a href="https://www.mentalhealth.gov/basics/">https://www.mentalhealth.gov/basics/</a>
  what-is-mental-health
- Zhang, Y., & Ma, Z. F. (2020). Impact of the COVID-19 Pandemic on Mental Health and Quality of Life among Local Residents in Liaoning Province, China: A Cross-Sectional Study. International Journal of Environmental Research and Public Health, 17(7), 2381. Doi: 10.3390/ijerph17072381