

Social Media Usage and Depression: A Study of Youth in Islamabad during the Covid-19



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Pages: 135 – 145

DOI: 10.31703/gsr.2023(VIII-I).12

URL: [http://dx.doi.org/10.31703/gsr.2023\(VIII-I\).12](http://dx.doi.org/10.31703/gsr.2023(VIII-I).12)

Abstract: *The COVID-19 changed lives in many ways. Social media had been shown to increase during the pandemic among youngsters. Due to the fear of missing out and staying connected, people started getting addicted to it. Social cognitive theory has been used in the study of social media use, depression, and social connectedness. This theory posits that individuals' attitudes, behaviour, and emotions are shaped by cognitive processes. This study utilizes the same theory to examine how increased social media usage affected youngsters psychologically during the pandemic. Utilizing a survey, a sample has been chosen from the youth of Islamabad using a simple random sampling technique. Findings revealed that youth felt depressed after using social media and the females were affected more than men. However, social media made them feel socially connected to each other. Future studies can analyse the reasons behind this depression and help find ways to tackle it.*

Key Words: Karachi, Pakistan, Social Work, Youth Development

Background

World has faced a global pandemic that started in the year 2019 called COVID-19. Everything changed upside down. Universities, schools, offices, restaurants, etc. everything got closed because of the lockdown announced by the Government to refrain from the further spread of this deadly virus, to avoid social and physical contact with people, and to make people stay at home for their safety. WHO (2020) research paper says that many universities, schools, and workplaces were closed and they offered a digital solution to students and employees. So everything got shifted to an online system. The world shifted to an online world. In this situation, people started using social media more and more and a rapid increase in usage was observed among the youth. The apps like Tiktok, Instagram, Snapchat, Netflix, and Facebook were mostly used by youngsters to stay up to date and to see what's happening around Globe. There were no such activities at home so people started relying on

social media. So their lives revolved around these applications, smartphones, and the internet. Some people started their online business, some were doing online jobs but at the same time, some became addicted to social media which was not a good thing. This increased usage affected people mentally and a little bit socially as well. There was an end to physical activities during the pandemic.

Problem Statement

The mental health and well-being of youth have been severely harmed by the coronavirus i.e. The Covid-19 pandemic. The increased use of social media sites during this time may have further contributed to their psychological distress. The debate is still on if social media usage gives depression or helps people connect. Therefore, this study's goal was to look into the fact that social media adds to depression or not and the differences between the two genders on the

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depression levels along with the social connectedness that youth feels when on social media platforms. The findings of this study will inform strategies to promote young people's well-being and mental health during and after the pandemic.

Research Objectives

1. To assess if social media usage adds to the depression among the youth in Islamabad during the pandemic of Covid-19.
2. To assess the difference between male and female depression during the pandemic of Covid-19 due to the usage of social media in the youth of Islamabad?
3. To investigate the relationship between social connectedness and social media usage among youth in Islamabad during the COVID-19 pandemic.

Research Questions

1. What is the relationship between excessive social media usage and levels of depression among youth in Islamabad during the Covid-19 pandemic?
2. Who is most affected male or female, by depression due to the usage of Social media during the pandemic?
3. What is the relationship between the use of social media and feelings of social connectedness among youth in Islamabad during the COVID-19 pandemic?

Hypothesis

1. There is a positive relationship between social media use during the COVID-19 pandemic and higher levels of depression among youth in Islamabad.
2. Females experienced higher levels of depression due to social media use during the COVID-19 pandemic compared to male youth of Islamabad.
3. There is a positive relationship between social media use and feelings of social connectedness among youth in Islamabad during the COVID-19 pandemic.

Literature Review

Overview of Social Media and Mental Health

Social media is one of the most significant parts of our lives. Lenhart (2015) states that social media plays an

essential role in the daily lives of young people. Because of extreme usage and by viewing other people's lives, many feel depressed. Orben & Przybylski (2019) said in their research that the ways people use social media, how it affects mental health and well-being, and whether it is possible to employ social media's popularity and engagement aspects to improve the way interventions are delivered. However, there is still ambiguity surrounding the dangers and potential negative effects of social networking.

Firth's (2016) research has shown that individuals with mental problems or disorders are increasingly gaining access to and using social media. Naslund et al. (2016) research says that among those receiving community-based mental health care who have a significant mental illness. According to a recent study, participants used social media at rates that were higher than 70% of the overall population.

Braghieri et al. (2021) say in their research that the diffusion of social media is playing a part in worsening the mental health of youngsters and teenagers and also that the carry out of Facebook at a college expanded side effects of poor mental health, particularly depression, and prompted expanded usage of healthcare services and administration.

Cauberghé et al. (2021) state that to cope with loneliness, depression, and anxiety and to express their feelings, youth choose social media during covid-19, so youth self-regulate their expression of emotions through social media to feel less depressed, fresh, and lively.

Padilla et al. (2020) research says that social media platforms have been a vital piece for the scattering of data; nonetheless, some various benefits and disadvantages should be thought of. Proper use of these tools can help quickly spread important new information, and relevant findings, share symptomatic, treatment, and follow-up conventions, as well as look at changed approaches worldwide, eliminating geographic boundaries without precedent for history. To involve these instruments capably and helpfully, it is prescribed to adhere to a few fundamental rules and guidelines when sharing information on social media in the COVID-19 era.

Apuke & Omar (2020) said that due to over-dependence on social media among youth leads to the dissemination of false news during Covid and it affects their behaviours.

Online Education

Lockee (2021) says because of the COVID-19 pandemic administrations and technological systems had to adapt quickly to implementing online learning. While access remains a huge issue for some, broad assets have been apportioned and processes created to interface students with course exercises and materials, to work with correspondence among teachers and students, and to deal with the organization of online learning.

Wrycza & Maślankowsk (2020) said in the research that social media helped youth and encouraged them to work remotely or (work from home) and also to do online learning.

Covid 19, mental health

Hamilton et al. (2020) say that the COVID-19 pandemic has impacted well-being, security, and day-to-day routines, everything being equal. Youths might be interestingly delicate to this unexpected interruption in their lives because of the biological and mental changes that happen during this formative period. Virtual entertainment has quickly changed the manners by which teenagers mingle and communicate with each other, which has added to a continuous discussion about whether web-based entertainment is helping or hurting adolescents today.

Pierce et al. (2020) said in their research that early indications point to a serious impact on livelihood, wages, and personal debt. Concerns about the pandemic's effects on mental health are growing, along with a sizable amount of stress over the uncertain future.

Torales et al. (2020) say that the outbreak of Covid 19 has increased health problems like anxiety, depression, insomnia, and fear. So people try to spend time on social media.

Banerjee & Rai (2020) describes loneliness as being alone or in isolation without any company and it's a dark feeling for the individual. And there is a huge risk of diseases and mental disorders like depression, anxiety, adjustment disorder, chronic stress, insomnia, or late-life dementia. This COVID-19 pandemic appears to have brought the furious speed of modern society to a crushing stop and has in a real sense squashed the wings of limitless social interaction. Under these social limitations, people are compelled to accommodate this unnerving truth of

disengagement which can add to domestic interpersonal violence and boredom.

Abbas et al. (2021) research centres around how instructing individuals through different platforms of social media can help with lessening the mental health consequences of the pandemic to deal with global health crises. The pandemic has represented a global mental health crisis, and correct information is vital to disperse vulnerability, fear, and mental stress to bring together worldwide networks in an aggregate battle against COVID-19 disease around the world.

Fernandes et al. (2020) say in their research that Covid-19 and social media addiction has impacted youth in various ways when they got addicted to the internet, gaming has impacted them psychologically too. It developed poor sleep and diseases like insomnia, anxiety, and stress and it affected mental as well.

Social Connectedness

Taylor-Jackson et al. (2021) say that a lot of social media use was associated with increased feelings of social connectedness among youth. The researchers suggested that social media use may have helped to mitigate the negative effects of social distancing measures on social connectedness among youth

Ellis et al. (2020) research says that during pandemics more time being connected to friends on social media leads to depression while spending time with family and doing household chores or studies leads to less anxiety and depression.

K et al. (2021) say that not necessarily all social media exposure is bad for well-being and exposure to the COVID act doesn't have the same negative consequences.

Social Media Addiction and Depression

Depression is a medical illness that can hurt how individuals feel, think, and act. It can lead to emotional and physical problems, as well as hinder a person's ability to perform everyday tasks. According to the World Health Organization, approximately 4.4% of the global population suffers from depression, equating to 300 million people (WHO, 2017). Additionally, depression is more commonly seen in females (5.1%) than males (3.6%).

Furthermore, a study conducted by Win et al. (2017) found that 34% of university students were

classified as addicted to the Internet and that loneliness was positively linked to social networking site addiction.

Theoretical Framework

The theory that will let us know about the effects of social media usage among youth is the social cognitive theory.

Social Cognitive Theory

According to social cognitive theory, cognitive processes like observational learning and self-efficacy have an impact on behaviour. This idea has been used by researchers to examine how social media use affects mental health causing depression. For instance, one study revealed that using social media was linked to greater levels of depression and anxiety and that this link was largely moderated by low self-esteem and unfavourable social comparison (Fardouly, Diedrichs, Vartanian, & Halliwell, 2015).

Relevance to the Topic

Social media had a major influence on youth's performance during a pandemic and social media among youth grew faster during this period time. Addiction and usage of social media and its impact on youth' academic performance as well as its co-curricular activities can be studied through social cognitive theory.

Social media grew during the time of Covid-19 among youth by seeing each other. Its users started to grow, the youth started to learn differently and the element of connectedness increased. Fear of missing out (FOMO) was even more prevalent and everybody was rushing to social media platforms to stay connected.

Social cognitive theory has been widely used by researchers in the study of social media use, depression, and social connectedness. This theory posits that individuals' attitudes, behaviour, and emotions are shaped by cognitive processes, including 3 elements that are observational learning, self-efficacy, and self-regulation.

Negative Social Comparison and Low Self-Esteem: Social comparison theory, a key component of social cognitive theory, suggests that in order to evaluate their own capabilities, abilities and achievements, individuals tend to compare themselves with others. Social media platforms give an ongoing

stream of information about the lives of others, which can lead to negative social comparison and reduced self-esteem. A study by Vogel et al. (2014) found that negative social comparison moderated the relationship between Facebook use and depression.

Self-Efficacy: Social cognitive theory also emphasizes the importance of self-efficacy or an individual's belief in their capability and ability to achieve their goals. Research has shown that people who feel confident in their ability to manage their online healthy behaviours and social media use are less likely to experience negative mental health outcomes (Pantic et al., 2012).

Self-Regulation: Finally, social cognitive theory highlights the value of self-regulation, or an individual's ability to control and monitor their own behaviour. Studies have shown that individuals who involve in self-regulated social media use, such as avoiding emotional triggers and setting time limits are more likely to experience positive mental health outcomes (Błachnio et al., 2016).

Delimitations

- The research was conducted on youth from different universities of Islamabad like Bahria, Air, NDU, NUST, and CUST, etc.
- The age of youth is 19-29 years.
- The sample size is 262 because of the accessibility of the researcher.

Methodology

Population

1. Social media
2. Youngsters/ students

Sampling Technique

Simple random sampling technique as the researcher collected data from random students of Islamabad universities.

Sample

The sample is taken from the students of Bahria University Islamabad.

Sample size

The sample size is 262 students as it was not feasible to collect data from a huge number of students because of a shortage of time.

Instrument Design

5- point Likert scale Questionnaire

The researcher took help from the research papers for the questionnaire (Ullah et al., 2022,) (Zhoa & Zhou, 2020). The researcher didn't find a solid base questionnaire for the survey but modified the already existing ones using the following operational definitions.

Conceptual and Operational Definitions of Variables

Social Media

Conceptual

Boyd and Ellison's (2008) defined social media as a set of web-based applications that allow the creation and exchange of user-generated content. They also note that social media is characterized by its interactive and participatory nature, allowing users to engage in online conversations and contribute to a shared pool of information.

Operational

From a social cognitive theory (SCT) perspective, social media can be seen as a tool that allows individuals to observe, learn, and model the behaviour of others within their social network. According to the SCT, individuals are influenced by both their cognitive processes and the social context in which they operate, including the people and media with whom they interact.

Social media platforms are seen as social learning environments, where individuals can observe the behaviour of others, receive feedback, and model new behaviours.

Social Connectedness

Conceptual

Social connectedness is the term used to describe a person's sense of community and their interactions with people in their social environment. It includes having the chance to partake in fulfilling social interactions and activities as well as a sense of being supported, taken care of, and valued by others.

John T. Cacioppo, a social neuroscientist, and psychologist, is one author who has written extensively on social connectivity. The degree to

which people are socially embedded in, integrated into, and a part of a wider social network or social fabric is how Cacioppo defines social connection. (Cacioppo & Patrick, 2008, p. 21.)

Operational

The significance of social engagement in fostering social connectivity is also emphasised by social cognitive theory. According to Hawkey and Cacioppo (2010), researchers can determine a person's social connectivity by counting how many close relationships they have and how often they engage with others. They can also look at how much time they spend participating in social activities.

3.6.3 Depression

Conceptual

A mental health condition that is characterized by persistent feelings of sadness, hopelessness, and a loss of interest or pleasure in activities that an individual used to find enjoyable is termed depression. It involves changes in appetite, sleep patterns, and energy levels, as well as difficulty concentrating or making decisions.

One author who has written extensively on depression is Aaron T. Beck, a cognitive psychologist and founder of cognitive therapy. (Beck, 1967, p. 3).

According to Beck, A negative cognitive schema, or a pattern of distorted and negative thinking about oneself, the world, and the future, causes depression. These negative beliefs can set off a chain reaction of bad feelings and activities, reinforcing the negative cognitive schema.

This mental health disease is distinguished by persistent negative feelings and cognitive distortions. It is seen as a complicated and diverse condition influenced by a variety of cognitive, emotional, and environmental factors.

Operational

Depression is frequently seen in terms of negative cognitive processes, such as negative self-evaluation, rumination, and despair, in social cognitive theory. Social cognitive theory's operational definitions of depression put an emphasis on evaluating these cognitive functions as well as the behavioural and emotional signs of depression.

The Beck Depression Inventory (BDI) is a popular self-report tool for evaluating depression that

evaluates a variety of cognitive, affective, and behavioural symptoms. According to Beck, Ward, Mendelson, Mock, and Erbaugh (1961), the BDI has measures that assess negative self-evaluation, pessimism, and lack of interest in activities.

Data Collection

The researcher collected data through an online Google form.

Data Analysis Procedure

- Pearson Correlation analysis
- Independent sample T-test

Results and Findings

Table 1

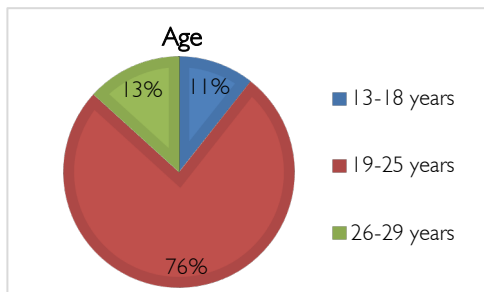
Male/Female

Gender Female	Number	%
Female	157	59.5%
Male	107	40.5
Total	264	

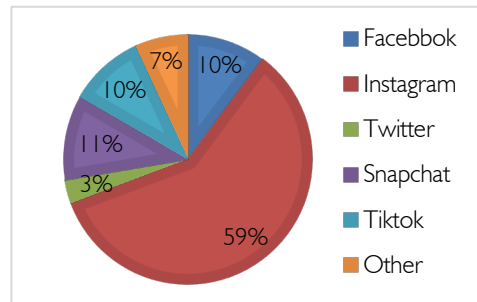
There were 157 females and 107 males in the study.

Graph 1

Age



Graph 2



Reliability is given underneath for the variables after they have been computed

Table 2

Social Media Use

Cronbach's Alpha	N of Items
.601	15

Table 3

Depression during Covid

Cronbach's Alpha	N of Items
.778	6

Table 4

Social Connectedness

Cronbach's Alpha	N of Items
.768	6

H1: There is a positive relationship between social media use during the COVID-19 pandemic and higher levels of depression among youth in Islamabad.

Table 6

Correlations

	Depression during COVID	How often do you use Social Media per Day?
Social Media Use	Pearson Correlation .350**	1
	Sig. (2-tailed) .000	
	N 262	262

** Correlation is significant at the 0.01 level (2-tailed).

There is a moderate positive correlation between the two variables and the relationship is moderately strong.

Overall, there is a meaningful significant relationship between the two variables.

H2: Females experienced higher levels of depression due to social media use during the COVID-19 pandemic as compared to the male youth of Islamabad.

Table 7

Independent sample t-test

VARIABLE	Male n=105	Female n=157	t	p	95% CI		Cohens d
	M SD	M SD			LL	UL	
Depression during Covid	3.4286 1.11009	3.8344 .97594	-3.120	.023	-.642	-.144	1.03169

- The t-value is -3.120, which indicates that the mean depression score for females was significantly higher than that of males. The p-value is .023 suggesting that the difference in depression scores between males and females is statistically significant.
- Effect size: A value of 1.03169 indicates a large effect size, which means that the difference in depression scores between males and females is practically significant in addition to being

statistically significant.

- The results suggest that females in Islamabad during the COVID-19 pandemic had significantly higher levels of depression compared to male youth.

H3: There is a positive relationship between social media use and feelings of social connectedness among youth in Islamabad during the COVID-19 pandemic.

Table 8

Correlations

	How often do you use social media per day?	Social connectedness
Pearson Correlation	.145*	1
Social connectedness Sig. (2-tailed)	.019	
N	262	262

*. Correlation is significant at the 0.05 level (2-tailed).

The Pearson correlation coefficient (r) of .145* indicates a weak positive correlation between social media use and feelings of social connectedness among youth in Islamabad during the COVID-19 pandemic. The correlation coefficient is statistically significant at the .05 level because the p-value (Sig. 2-tailed) is .019.

In other words, while there is a positive association between social media use and feelings of social connectedness, it's not a very strong association, and there could be other factors that are more important in determining social connectedness among youth during the COVID-19 pandemic in Islamabad.

Discussion and Conclusion

H1: There is a positive relationship between social media use during the COVID-19 pandemic and higher levels of depression among youth in Islamabad.

Researchers proved this hypothesis. A survey of 262 students was taken that represented the youth of Pakistan and the results were generalized. People highly agreed that they started to use more social media during the pandemic than they did before. Many of them mentioned that they became addicted to social media but it depends on the interests of the youth too so they did it accordingly. Fernandes et al. (2020) say in their research that Covid-19 and social

media addiction has impacted youth in various ways like they got addicted to the internet; gaming has impacted them psychologically too. It developed poor sleep and diseases like insomnia, anxiety, and stress and it affected mental as well. Social media has a harmful impact on the mental health of youth, everyone wants to live a life full of luxuries but everyone can't have that life. People post everything on social media and due to its excessive growth among youth; they come across the profiles of everyone. Depression is a medical illness that can have a negative effect on how individuals feel, think, and act. It can lead to emotional and physical problems, as well as hinder a person's ability to perform everyday tasks. Most of them experienced some symptoms of depression like lack of motivation, feelings of hopelessness, and difficulty in sleeping or oversleeping. Some of them also lost interest in doing the activities they used to enjoy. Torales et al. (2020) say that the Covid-19 outbreak has increased health problems like anxiety, depression, insomnia, and fear. So people try to spend time on social media.

A study conducted by Win et al. (2017) found that 34% of students at the university were classified as addicted to the internet and that loneliness and depression were positively linked to social networking site addiction. Researchers also proved that there is a moderate positive correlation between depression and the use of social media. In the survey results youth also agreed that social media made them mentally and physically tired obviously when people have all focus on the same thing for more than 4 hours a day they will feel tired but having no other option they had to continue with the same routine this also made people mentally sick. Many of them went through depression, anxiety, and stress. Instagram was used the most during pandemic by the students. And they never got bored of using it. The most affected ones are of the age between 19-25 years.

H2: Females experienced higher levels of depression due to social media use during the COVID-19 pandemic as compared to the male youth of Islamabad.

Researchers proved this hypothesis. Almost 70% of youngsters agreed that there are gender differences in the relationship or connection between social media use and depression during the pandemic.

On social media, females compare themselves to others, resulting in feelings of inadequacy and low self-esteem. This could be exacerbated during the

pandemic, as many people were isolated and had more time to spend on social media. According to the World Health Organization, depression is more commonly seen in females (5.1%) than males (3.6%).

People post everything on social media and due to its excessive growth among youth; they come across the profiles of everyone. Seeing the luxurious lifestyle of other people who want to live that life but can't afford to live it become envious of them, and started to grow insecurities which has a negative impact on mental health.

Women are often expected to prioritize their relationships and emotional well-being, which may make them more vulnerable to the negative effects of social media use. Men, on the other hand, may be more likely to prioritize achievement and success, which may protect them from some of the negative effects of social media.

A study published in the Journal of Medical Internet Research in August (2020) examined the connection or link between social media use and mental health during the COVID-19 pandemic. Females reported higher degrees of depression associated with social media use during the pandemic, according to the study, when compared to males. The researchers suggested that this may be due to gender differences in social media use patterns and social comparison processes.

Research has shown that men and women use social media in various ways, with women using it more for social connection and emotional support, while men use it more for information collecting and enjoyment. This could contribute to the gender differences in the impact of social media on mental health.

H3: There is a positive relationship between social media use and feelings of social connectedness among youth in Islamabad during the COVID-19 pandemic.

The researcher proved this hypothesis to some extent. A survey of 262 students was conducted that represented the students of Islamabad and Rawalpindi and the results were generalized. There is a weak positive correlation between social media use and feeling of connectedness among youth. Social media allows youth to stay in touch with friends and family members who they might not be able to see in person due to social distancing measures. This can help to

maintain feelings of social connectedness, even when physical connections are limited.

Ellis et al. (2020) research says that during pandemics more time being connected to friends on social media leads to depression while spending time with family and doing household chores or studies leads to less anxiety and depression. So according to this research, almost 52% of youngsters felt connected and the rest of them didn't.

The study of (Taylor-Jackson et al., 2021,) found that increased social media use was associated with increased feelings of social connectedness among youth. The researchers suggested that social media use may have helped to mitigate the negative effects of social distancing measures on social connectedness among youth.

Youth can use social media to seek and receive social support from their peers, which can contribute to feelings of social connectedness. This is especially important during times of stress and uncertainty, such as the COVID-19 pandemic.

Social media provides opportunities for positive social interactions: Youth can use social media to engage in positive social interactions, such as sharing funny or uplifting content with friends. These interactions can help to boost mood and feelings of social connectedness.

It is important to note that the relationship between social media use and social connectedness is complex and that there may be negative effects of social media use as well. Additionally, each individual's experience is unique, and some youth may not find social media to be a source of social connectedness.

Conclusion

The researcher conducted this research to know if social media use had an effect on the mental health of youth and if it leads to depression. Also to find out if females are more affected as compared to males and

if social media use has a positive relationship with social connectedness. The researcher conducted a survey which was comprised of different questions for the main hypothesis, and the quantitative research method was used with a sample of 262 youth of Islamabad from Islamabad between 13 to 29 years of age.

The growth of social media users and using too much social media affected people negatively, social media affected people psychologically and mentally, and they also got different symptoms of depression. But with all this, these social media has helped youth a lot and facilitated them during the pandemic as they stayed in touch with their peers, got the knowledge and online learning became easy for them. Also, females are more vulnerable and insecure as compared to males. They started comparing themselves and got easily obsessed with social media influencers and personalities. The research proved the entire three hypotheses that excessive use of media does have a negative impact on mental health especially in females but youth still feel that it connects them socially.

Recommendations

Some of the recommendations are as follows;

- Involve participants from diverse backgrounds: The researcher only considered students of universities.
- Consider potential confounding variables: There may be other factors that are influencing the relationship between social media use, depression, and social connectedness during the pandemic, such as pre-existing mental health conditions, social support networks, and access to health care.
- Explore the role of social media platforms: Different social media platforms may have different effects on individuals' mental health and social connectedness

References

- Abbas, J., Wang, D., Su, Z., & Ziapour, A. (2021). The Role of Social Media in the Advent of COVID-19 Pandemic: Crisis Management, Mental Health Challenges and Implications. *Risk Management and Healthcare Policy*, 14, 1917–1932. <https://doi.org/10.2147/rmhp.s284313>
- Apuke, O. D., & Omar, B. (2020). Fake News and COVID-19: Modelling the Predictors of Fake News Sharing Among Social Media Users. *Telematics and Informatics*, 56(0736-5853), 101475. <https://doi.org/10.1016/j.tele.2020.101475>
- Bandura, A. (1977). *Self-efficacy: toward a Unifying Theory of Behavioral Change*. Psycnet.apa.org. <https://psycnet.apa.org/record/1977-25733-001>
- Banerjee, D., & Rai, M. (2020). Social isolation in Covid-19: The impact of loneliness. *International Journal of Social Psychiatry*, 66(6), 002076402092226. <https://doi.org/10.1177/0020764020922269>
- Beer, D. D. (2008). Social network(ing) sites...revisiting the story so far: A response to danah boyd & Nicole Ellison. *Journal of Computer-Mediated Communication*, 13(2), 516–529. <https://doi.org/10.1111/j.1083-6101.2008.00408.x>
- Błachnio, A., Przepiorka, A., & Pantic, I. (2016). Association between Facebook addiction, self-esteem and life satisfaction: A cross-sectional study. *Computers in Human Behavior*, 55(Part B), 701–705. <https://doi.org/10.1016/j.chb.2015.10.026>
- Braghieri, L., Levy, R., & Makarin, A. (2022). Social Media and Mental Health. *American Economic Review*, 112(11), 3660–3693. <https://doi.org/10.1257/aer.2021.1218>
- Buchanan, K., Aknin, L. B., Lotun, S., & Sandstrom, G. M. (2021). Brief exposure to social media during the COVID-19 pandemic: Doomscrolling has negative emotional consequences, but kindness-scrolling does not. *PLOS ONE*, 16(10), e0257728. <https://doi.org/10.1371/journal.pone.0257728>
- Cacioppo, J. T., Norris, C. J., Decety, J., Monteleone, G., & Nusbaum, H. (2009). In the Eye of the Beholder: Individual Differences in Perceived Social Isolation Predict Regional Brain Activation to Social Stimuli. *Journal of Cognitive Neuroscience*, 21(1), 83–92. <https://doi.org/10.1162/jocn.2009.21007>
- Cauberghe, V., Van Wesenbeeck, I., De Jans, S., Hudders, L., & Ponnet, K. (2021). How Adolescents Use Social Media to Cope with Feelings of Loneliness and Anxiety During COVID-19 Lockdown. *Cyberpsychology, Behavior, and Social Networking*, 24(4), 250–257. <https://doi.org/10.1089/cyber.2020.0478>
- Cropanzano, R., & Mitchell, M. S. (2005). Social Exchange Theory: An Interdisciplinary Review. *Journal of Management*, 31(6), 874–900. <https://doi.org/10.1177/0149206305279602>
- Dillon, C., Andrés, P., Castro, D., Guelar, V., Garcia, V., Feldman, M., Leis, A., Romano, M., Peralta, C., Rojas, J. I., Maggi, S. C., & Viaggio, M. B. (2020). Mental and Physical Health and Hygienic, Nutritional and Daily Habits during Quarantine in COVID-19 Pandemic. *Scirp. Revista de Psicología Clínica Con Niños Y Adolescentes*, 07(11), 1–15. <https://doi.org/10.4236/oalib.1106934>
- Ellis, W. E., Dumas, T. M., & Forbes, L. M. (2020). Physically isolated but socially connected: Psychological adjustment and stress among adolescents during the initial COVID-19 crisis. *Canadian Journal of Behavioural Science / Revue Canadienne Des Sciences Du Comportement*, 52(3), 177–187. <https://doi.org/10.1037/cbs0000215>
- Fardouly, J., Diedrichs, P. C., Vartanian, L. R., & Halliwell, E. (2015). Social Comparisons on Social media: The Impact of Facebook on Young women's Body Image Concerns and Mood. *Body Image*, 13(1), 38–45. <https://pubmed.ncbi.nlm.nih.gov/25615425/>
- Firth, J. (2016). Research engagement for the school. *Education in the North*. https://www.abdn.ac.uk/education/documents/journals_documents/Volume_23_ECR/Vol23_2_FEATUREFirth.pdf
- González-Padilla, D. A., & Tortolero-Blanco, L. (2020). Social media influence in the COVID-19 Pandemic. *International Braz J Urol*, 46(1), 120–124. <https://doi.org/10.1590/s1677-5538.ibju.2020.s121>
- Hamilton, J. L., Nesi, J., & Choukas-Bradley, S. (2020). Teens and social media during the COVID-19 pandemic: Staying socially

- connected while physically distant. *PsyArXiv Preprints*. <https://doi.org/10.31234/osf.io/5stx4>
- Lenhart, A. (2015, April 9). *Teens, Social Media & Technology Overview 2015*. Pew Research Center. <https://www.pewresearch.org/internet/2015/04/09/teens-social-media-technology-2015/>
- Lockee, B. B. (2021). Online education in the post-COVID era. *Nature Electronics*.
- Naslund, J. A., Aschbrenner, K. A., Marsch, L. A., & Bartels, S. J. (2016). The Future of Mental Health care: peer-to-peer Support and Social Media. *Epidemiology and Psychiatric Sciences*, 25(02), 113–122. <https://doi.org/10.1017/s2045796015001067>
- Orben, A., & Przybylski, A. K. (2019). The association between adolescent well-being and digital technology use. *Nature Human Behaviour*, 3(2), 173–182. <https://doi.org/10.1038/s41562-018-0506-1>
- Pantic, I., Damjanovic, A., Todorovic, J., Topalovic, D., Bojovic-Jovic, D., Ristic, S., & Pantic, S. (2012). ASSOCIATION BETWEEN ONLINE SOCIAL NETWORKING AND DEPRESSION IN HIGH SCHOOL STUDENTS: BEHAVIORAL PHYSIOLOGY VIEWPOINT. *Psychiatria Danubina*, 24(1), 90–93. <https://hrcak.srce.hr/file/156425>
- Taylor-Jackson, J., Abba, I., Baradel, A., Lay, J., Herewini, J., & Taylor, A. (2021, January). Social media use, experiences of social connectedness and wellbeing during COVID-19. (2021). *Mental Health Effects of COVID-19*, 283–300. <https://doi.org/10.1016/B978-0-12-824289-6.00013-1>
- Torales, J., O'Higgins, M., Castaldelli-Maia, J. M., & Ventriglio, A. (2020). The outbreak of COVID-19 coronavirus and its impact on global mental health. *International Journal of Social Psychiatry*, 66(4), 317–320. <https://doi.org/10.1177/0020764020915212>
- Ullah, I., Ali, S., Ashraf, F., Hakim, Y., Ali, I., Ullah, A. R., Chattu, V. K., & Pakpour, A. H. (2022). Prevalence of depression and anxiety among general population in Pakistan during COVID-19 lockdown: An online-survey. *Current psychology (New Brunswick, N.J.)*, 1–8. Advance online publication. <https://doi.org/10.1007/s12144-022-02815-7>
- Vogel, E. A., Rose, J. P., Roberts, L. R., & Eckles, K. (2014). Social comparison, social media, and self-esteem. *Psychology of Popular Media Culture*, 3(4), 206–222. <https://doi.org/10.1037/ppm0000047>
- WHO. (2017). World Health Organization. *Depression and other common mental disorders: Global health estimates*, 710.
- WHO. (2020). Advice for the public: Coronavirus disease (COVID-19). *World Health Organisation*.
- Wrycza, S., & Maślankowski, J. (2020). Social Media Users' Opinions on Remote Work during the COVID-19 Pandemic. Thematic and Sentiment Analysis. *Information Systems Management*, 37(4), 1–10. <https://doi.org/10.1080/10580530.2020.1820631>
- Zhao, N., & Zhou, G. (2020). Social Media Use and Mental Health during the COVID-19 Pandemic: Moderator Role of Disaster Stressor and Mediator Role of Negative Affect. *Applied Psychology: Health and Well-Being*, 12(4), 1019–1038. <https://doi.org/10.1111/aphw.12226>