Impact of social media on students' mental health during COVID-19

Abstract

Social media is a platform where people can communicate, share content, remain up to date with the world situation, can find new friends, and entertain. Excessive use of social media affects mental health. Typically, schools and universities do not allow students to bring and utilize technology in the classroom, but COVID has made it vital for students to complete their education utilizing technology. Nowadays schools and universities students are involving in the addiction of social media. There's a solid correlation between using social media a lot and having a higher risk of stress, anxiety, and loneliness.

Previous studies found that the students' mental health is affected differently by different sorts of social media. This research concentrates on the link between excessive use of social media (Facebook, WhatsApp, Instagram) during the COVID-19 and the students' mental health. This research will be conducted at different schools and universities, with the primary goal of determining the popularity and addiction of social media. Social media addiction is a type of behavioral addiction characterized by an excessive focus on social media, an uncontrolled want to log on to use social media and investing so much time and effort to social media that it interferes with other vital aspects of one's life. Why students show more attraction toward social media? Data will be collected online by sending the questionnaire to students. Finally, in order to evaluate the data and learn about the student's mental health and educational development, we will utilize the SPSS tool and machine learning models.

Introduction

Mental health is a condition of well-being during which people recognize their own abilities to cope with everyday challenges and work productively to give to their own communities [1]. Social media, which is extremely popular, has both beneficial and harmful consequences on students' mental health, and most students utilize it at their institutes. There's a link between how much time you spend on social media and your mental health. You will be less depressed and lonely if you use less social media [2]. The Excessive usage of social media can cause melancholy, anxiety, sadness, and discontent. Individuals who abuse social media and are unable to manage their actions on social media are considered to have symptoms of social media addiction, according to psychological research [3].

The coronavirus disease (COVID-19) is a virus-borne infectious disease. first case was initially reported in late December 2019 in Wuhan, China. The infection has spread to several countries around the world and has become a pandemic disease. On February 26, 2020, the first case of COVID-19 was discovered in Pakistan. To control the spread of COVID-19, the Pakistani government ordered the closure of all schools, colleges, and universities across the country on March 13, 2020. students are limited to their homes, as a result of social media use increase. During covid, students use different social media apps for different purposes, like online classes, current situation of covid in the world. As a result, social media usage increase, and its effect badly mental health. To know this

effect different studies are conducted. It was discovered that social media plays an important role in spreading anxiety about the COVID-19 pandemic among students. During the COVID-19 lockdown, internet users moved their attention to social media, primarily Facebook, for a variety of reasons such as, including communicating with friends, and families, as well as staying informed about the COVID-19 pandemic in their areas [4].

Study focusses on the psychological impact of closures of institutes due to Covid-19. The results show that most students are spending more time on social media. Most students have distressing symptoms attributable to a depressive mood disorder. Higher media consumption was linked to higher levels of anxiety and despair. Greater media use, especially social media related to COVID-19, might have a negative impact on one's mental health [5]. Researchers discovered a higher prevalence of mental health issues (e.g., sadness, anxiety, and post - traumatic stress). The current study also discovered that being stressed by social media was a significant risk factor for depression and stress, extending prior research that identified a link between Corona-related social media exposure and mental health difficulties [6].

The phrase "social media" refers to a collection of online communication channels that promote community-based input, content sharing, and collaboration. It's a social media network that brings people together to talk, share ideas, and make new friends. Social media is a term used to describe this form of data sharing and collaboration [7]. It's a social networking and relationship-building platform that allows users to interact with people who have similar personal or professional interests, activities, backgrounds, or real-life connections. It is an online environment that provides us with the opportunity to meet millions of people who are looking to meet others with similar curiosity. There is no limit to how many followers you can have or the places they can live. Individuals from many walks of life are using social media. There are numerous social media platforms, such as Facebook, WhatsApp, Instagram, and Snap Chat. These allow users to create their profiles [3, 7].

Normally, schools and colleges prohibit students from bringing and using technology in the classroom, but COVID has made it mandatory for students to complete their education using technology. Students now have smartphones in their hands all of the time, and they use them to attend online classes, complete assignments, and conduct exams. Because parents are unable to supervise their children's gadget activities, the majority of pupils begin to use social media instead of attending classes or completing homework and assignments. Students have been addicted to social media, and it is having a significant detrimental influence on their mental health and student life, since their grades and learning capacities are steadily deteriorating. It is necessary to gather students' device and social media usage patterns, as well as to use various data analytics technologies to learn about their mental health at an early stage so that appropriate steps may be taken.

Research Objectives

1. Due to covid-19, investigate how much social media use has increased in students' life.
2. To check the prevalence of social media addiction in students with respect to various factors such as gender, age, year of study.

3. To study the relationship between social media addiction and mental health of schools and universities students.

Literature Review

It has been acknowledged that social media has an impact on students. The process included the creation of a questionnaire, which was then distributed to students at random. This questionnaire included questions about age, gender, time spent, and the purpose of using devices and websites. The findings reveal that social media has both positive and negative effects on individuals. The impacts of social media consumption on students were investigated in a study. It is a questionnaire-based study that considers criteria such as gender, duration of use, level of interest, number of accounts, time spent, and number of friends. According to the findings, social media aids in study-related activities while simultaneously wasting time[8].

Age gender purpose of use hour of usage study hour English language skill grade point average addiction and educational use are the factors that were studied in this study. Data was collected via a questionnaire, and the results were analyzed using a doing rating system based on the responses. This study found that if social media is not used properly, it also harms academic performance [9]. This study done on A'Sharqiyah University students. According to the findings of the current study there is inverse interaction between degree Students' psychological health and the impact of social media. when the period of time increase on social media increased, their mental health level decline [10] . This study was performed on Undergraduate Students in Chongqing, China. The purpose of this study was to determine the impact of social networks on student sleep duration. The questionnaire was developed for collection of data. The questionnaire was created on the impact of social networks on undergraduate students' sleepiness. Epi-data3.1 software was used for analyzing data. majority of students use social media. The result show that more than half students have poor sleep quality. Mostly students use social apps before going to sleep [11]. This research was conducted at Notre Dame University to know the relation of Conscience, satisfaction with life, and mobile phone addiction. First of all designed questionnaire papers. After collection of data analyses data for getting result. The findings demonstrate a poor association between social media usage and conscience, as well as a moderated bad relationship between social media users and satisfaction with life. [12]. This study found that the demand of social media increase day by day. point out that female students are found more addicted to social media then male students. There was a strong association between daily hours of use and addiction to social media and excessive mobile use in both male's students and female's students. Female students spend more on social media as compared to male students [13]. Showed that excessive social media use is likely to damage university students' mental health. Spending more time on social media has a negative influence on mental health when compared to those who do not use it. A positive family bond can help students feel less depressed. Building positive relationships with family members, can assist students in feeling comfortable and enjoying their time alone [14]. Although there was a strong link between addictive behavior and depression can cause, the duration of social media usage and the frequent of mobile use had no link, likely to have a strong link with addictive behavior. It highlights the distinction between use and addiction [15]. Study describe that university students of turkey use social media less so these are less addicted and South Korea university students are more addicted to social media. The findings revealed that social media addiction among South Korean university students is unaffected by daily usage time. However, more than half of students

say they spend at least 4 hours every day on social media[16]. In general, the findings suggest that there is a link between social network addiction and anxiety. Social media addiction promotes an increase in stress and a sense of loss of control within students. Mental issues have been linked to social network. Online networking is creating problem like Nervousness, sadness, and dietary concern [17]. During COVID-19, the use of social media increased. People spend most of their time on social without realizing the negative impact of social media on their health. use of social media to connect with relatives, friends, and family members. Most people feel that using social media reduces stress. During. lockdown, no one can meet their family or friends, but they can contact with them via social media [18]. The study conducted that outbreak caused a significant frequency of mental health illnesses in students, including acute stress, post-traumatic stress, anxiety, and depression. This demonstrates that the epidemic exacerbated common mental illnesses among university students, with a prevalence of anxiety and depression [19].

Problem Statement

People's cooperative coordination improves because of their use of social media. However, utilizing social media without effective management wastes time, causes inefficiency, and causes health problems [19]. People use social media for different purpose like socialization, entertainments, following celebrities but excessive use of social media effect their physical health as well as mental health. Most students are ignorant of the negative impact of social media on their health.

The goal of this research is to explore that how much the students have been addicted to social media, and it is having a significant detrimental influence on their mental health and student life, since their grades and learning capacities are steadily deteriorating. Also, to explore the mental health issues among schools and universities students due to excessive use of social media because of covid -19.

Research Question

1. Why the use of social media increases in the covid-19?
2. How can we measure social media addiction?
3. How does social media effect the schools and universities student's mental health?
4. Which one is the most popular social networking app among students?
5. What is the correlation between the time spent on social media and student's mental health?

Research Contributions

After doing research we will be able.

- To know how much use of social media increase in students' life due to covid-19.
- To explore the department wise social media addiction from 1st semester to last semester.
- To know which social media app is most popular among student and why?
- To know relationship between social media addiction, mental health, and student education.

Research Methodology

Research Design: This will be a cross-sectional questionnaire-based study. The questionnaire will be designed to collect data from different schools and universities.
Research Setting: The questionnaire will be developed for collection of data from different schools and universities. About the impact of social media on students' mental health.
Research Duration: This study will be completed in almost 3 months in which include designing the questionnaire for data collection and the data analysis the data.

Study participant: The participants include students at various schools and universities. These students are part of this study who are using social media.

Dependent variables: anxiety, depression and mental health are dependent variable.

Independent variable: Students' demographic data (age, gender, date of birth), academic years, living area, and COVID-19-related health conditions, frequent visits of sites.

Data Collection Method: For data collection design questionnaire. the questionnaire will be distributed among students both online and manually. The questionnaire will be distributed among the students and asked them to mail their friends. Data will also be collected during university opening timing in hard form.

Data Analysis: Data is analyzed to find accurate results and make decisions based on them. The SPSS (statistical package for social sciences) tool and machine learning algorithms will be utilized to examine the data for the study.

Timeline/Work plan

Phase – I

Literature Review

Data collection through the questionnaire.

Phase -II

Tools Selection.

Downloading.

Functional Analysis.

Phase – III

Data Analysis.

Data presentation.

Final Thesis Writing.

Table 1: Timetable

TASK	START DATE	END DATE
Literature Review and data collection	10 November 2021	10 December 2021
Tool's collection and data analysis through SPSS and machine learning models	11 December 2021	15 February 2022
Final thesis Writing	16 February 2022	30 March 2022

References

1. Galderisi, S., Heinz, A., Kastrup, M., Beezhold, J., & Sartorius, N. (2015). Toward a new definition of mental health. *World Psychiatry*, *14*(2), 231.
2. Marttila, E., Koivula, A., & Räsänen, P. (2021). Does excessive social media use decrease subjective well-being? A longitudinal analysis of the relationship between problematic use, loneliness and life satisfaction. *Telematics and Informatics*, *59*, 101556.
3. Deepa, M., & Priya, K. (2020). Impact of Social Media on Mental Health of Students. *International Journal of Scientific & Technology Research*, *9*(03).
4. Radwan, E., Radwan, A., & Radwan, W. (2020). The mental health of school students and the COVID-19 pandemic. *Aquademia*, *4*(2), ep20020.
5. Thakur, A. (2020). Mental health in high school students at the time of COVID-19: A student's perspective. *Journal of the American Academy of Child and Adolescent Psychiatry*, *59*(12), 1309.
6. Robertson, L. J., Maposa, I., Somaroo, H., & Johnson, O. (2020). Mental health of healthcare workers during the COVID-19 outbreak: A rapid scoping review to inform provincial guidelines in South Africa. *South African Medical Journal*, *110*(10), 1010-1019.
7. Ishaq, K., Zaki, F., Zin, N. A. M., Abid, A., Farooq, U., & Ijaz, M. (2019, November). Impact of Social Media on Student's Health: A Study of Public Sector Universities in Punjab. In *2019 International Conference on Innovative Computing (ICIC)* (pp. 1-7). IEEE.
8. Bhakta, K. (2017). Using Social Networking Sites and its impact on college students. *International Journal for Innovative Research in Multidisciplinary Field*, *3*(1), 12-18.
9. Bernard, K. J., & Dzandza, P. E. (2018). Effect of social media on academic performance of students in Ghanaian Universities: A case study of University of Ghana, Legon.
10. Long Xu, X., Zhu, R. Z., Sharma, M., & Zhao, Y. (2015). The influence of social media on sleep quality: a study of undergraduate students in Chongqing. *China. J Nurs Care*, *4*(253), 2167-1168.
11. Hawi, N. S., & Samaha, M. (2017). The relations among social media addiction, self-esteem, and life satisfaction in university students. *Social Science Computer Review*, *35*(5), 576-586.
12. Rosales, F. L., & Medrano, J. L. J. (2019). Interaction between the use of and addiction to social media and mobile phones among university students. *Revista de Investigación en Tecnologías de la Información: RITI*, *7*(14), 76-88.
13. Saputri, R. A. M., & Yumarni, T. (2021). Social media addiction and mental health among University students during the COVID-19 pandemic in Indonesia. *International Journal of Mental Health and Addiction*, 1-15.
14. Jasso-Medrano, J. L., & Lopez-Rosales, F. (2018). Measuring the relationship between social media use and addictive behavior and depression and suicide ideation among university students. *Computers in Human Behavior*, *87*, 183-191.
15. Ünal, A. T. (2020). A comparative study of social media addiction among Turkish and Korean university students. *Journal of Economy Culture and Society*, (62), 307-322.
16. Lozano Blasco, R., Latorre Cosculluela, C., & Quílez Robres, A. (2020). Social network addiction and its impact on anxiety level among university students. *Sustainability*, *12*(13), 5397.
17. Swarnam, S. (2021). Effect of Social Media Use on Mental Health during Lockdown in India. *arXiv preprint arXiv:2102.09369*.
18. Villani, L., Pastorino, R., Molinari, E., Anelli, F., Ricciardi, W., Graffigna, G., & Boccia, S. (2021). Impact of the COVID-19 pandemic on psychological well-being of students in an Italian university: a web-based cross-sectional survey. *Globalization and health*, *17*(1), 1-14.
19. Sivakumar, I., Manimekalai, K., & Ranjithkumar, A. (2020). The Impact of Social Media on Girl Students Health in Sivagangai District. *International Journal of Psychosocial Rehabilitation*, *24*(1), 174-179.