

# **A Cross-Sectional Study of Psychological problems and Social Media exposure**

**Dr. Bharat Dhiman, Assistant Professor, Department of Communication & Media Technology, J.C. Bose University of Science and Technology, YMCA, Faridabad, Haryana, India**

The coronavirus disease (Covid-19) has caused depression, anxiety, confusion, changed students living conditions, including commuting restrictions, fear of disease transmission, drugs addictions and closure of coaching institutions, schools, colleges, universities and businesses, and brought about devastating psychological impacts. However, most previous studies only have focused on clinical data. In this study the research scholar assessed the prevalence of psychological problems and examines their association with social media exposure. A cross-sectional study among students of Kurukshetra University was conducted during 24th March to 30th March 2020.

Online survey was used to do rapid assessment. Total of 50 participants of various department of university were involved in the current study. The prevalence of depression, anxiety was 70.9% during COVID-19 outbreak. More than 80% of participants reported frequently exposed to social media. This study found that there was high prevalence of psychological problems, which positively associated with frequently SME during the COVID-19 outbreak. These findings implicated that the Indian government need pay more attention to psychological problems, especially depression and anxiety among students.

**Keywords** – Media, Social Media, Media Consumption, Social Media Exposure, Psychological Problems, Covid-19, Depression, Anxiety, Drugs Addiction, Mental Health Problems, Kurukshetra University

## **Introduction**

A public health emergency of coronavirus disease (COVID-19) outbreak in Wuhan, China on 31 December 2019, which has been spread to 24 countries outside of China including India and infected 80,558 patients globally. The first case of the 2019–20 coronavirus pandemic in India was reported on 30 January 2020, originating from China. The outbreak of COVID-19 in students of Kurukshetra University has caused psychological problems.

The Haryana government strives to improve the public's awareness of prevention and intervention strategies by providing daily updates about surveillance and active cases on websites and social media platforms. Social media sites may lead to misinformation overload which in turn may cause psychological problems among students.

A previous study also shown social media exposure may positively relate to forming risk perceptions during the MERS outbreak in South Korea. But there was no study to examine the association between social media exposure and psychological problems. The current study aims to describe the prevalence and distribution of two major mental disorders i.e. anxiety and

depression among university students, and examine their associations with social media exposure by rapid assessment during COVID-19 outbreak.

### **About Kurukshetra University**

Kurukshetra University is one of the reputed university of India. It established in 1956, the University is providing higher education to over half a million students on the campus and its affiliated colleges. By virtue of its commitment to excellence, the University has been awarded A+ Grade by NAAC and has been placed at 8th position amongst the State Universities of the country in Category-I by the Ministry of Human Resource Development (MHRD) and has also been granted academic autonomy. It located on the southern bank of famed Brahma Sarovar.

Kurukshetra University has a lavish green campus spread over 473 acres. In addition to providing quality education to the students, Kurukshetra University embodies the values of Yogastha Kuru Karmani, enshrined in Bhagwadgita, which means performing one's activities while remaining steadfast in Yoga. The University is in the rapid process of transformation to an institution of excellence. In this process, digitalization of the University is being done to develop an efficient and transparent system that would further facilitate a learner's experience in the University.

The University programmes combine the enduring value of a liberal arts education with the skills and experience offered by professional departments. The University offers 175 courses on the campus in 47 Departments/institutes through a highly qualified faculty. The University also plays a crucial role in providing higher education to the youth of the State through its 282 affiliated colleges and institutes in seven district of Haryana.

The campus of the University has often been rated as one of the most beautiful campuses in India. It resembles a large, self-contained educational village with lecture theaters, smart class rooms, Wi-Fi campus, 24 hrs library facility, laboratories, on campus hostel accommodation, cafeterias, canteens, market, swimming pool, gymnasium, bank, ATM's, post office and world-class sports facilities. The most remarkable feature of the campus is a seamless interconnection of nature and the built environment. There are a number of lush green gardens, water fountains and sidewalks which provide an ideal environment on the campus for study and leisure.

### **Objectives of the Study**

1. To find out the Social Media exposure among students
2. To find out the Psychological problems among students

### **Research Methodology**

This cross-sectional study was online conducted during 24th March to 30th March 2020. Total of 50 participants of various department of university were involved in the current study. In total, 50 participants took part in the survey. After removing the participants without completed questionnaires, 45 participants from different department staying in university hostel were involved in the present study. A written consent form of online survey was given to all participants before filling the questionnaire.

## **Measurements**

### **Psychological problems**

According to a previous study two major psychological disorders i.e. anxiety and depression were assessed in the current study. Depression was assessed on a 6-point scale ranging from all of the time (5 points) to at no time (0 points). A summed score below 13 indicates depression. Anxiety was assessed of generalized anxiety disorder scale (GAD-7) which consists 7 symptoms. Participants were asked how often they were bothered by each symptom during the last 1 week. Response options were “not at all,” “several days,” “more than half the days,” and “nearly every day,” scored as 0, 1, 2, and 3, respectively. A score of 10 or greater represents a reasonable cut point for identifying cases of anxiety.

### **Social media exposure**

Social media exposure was measured by asking how often respondents during the past week were exposed to news and information about COVID-19 on social media, such as facebook, twitter and etc. Response options were “never”, “once in a while”, “sometimes”, “often” and “very often”. Because of less proportion of “never”, so we recoded social media exposure into “less” (“never” and “once in a while”), “sometimes” and “frequently” (“often” and “very often”).

### **Covariates**

The following covariates were included in this study: gender, age (10-year categories), educational (master and higher), self-rated health (categorized as excellent, very good and good or low), cities (Haryana or others), area (urban and rural).

### **Statistical analyses**

The  $\chi^2$  /trend tests were used to determine the prevalence of anxiety, depression and combination of depression and anxiety by categorical variables including social media exposure and covariates. Logistic regression analyses were used to explain the association between the prevalence of depression, anxiety and combination of depression and anxiety and SME after controlling for covariates. We estimated the adjusted ORs and their 95% confidence intervals (CIs) of independent variables for frailty.

## **Results**

### **Social media exposure**

All 50 participants, the mean age of was  $32.3 \pm 5.0$  years (ranged 18–30), the proportion of “less”, “sometimes”, and “frequently” of SME was 8.8%(95%CI:8.0%-9.6%), 9.2%(95%CI:8.4%-10.0%) and 82.0%(95%CI:80.9%-83.1%). Many participants (50.0%) were undergraduate and 50.0% were postgraduate.

The proportion of frequently SME among undergraduates (aged 18-23 years) was higher than among elders (aged 23-30 years). Participants from rural area reported higher proportion of frequently SME than who from urban area. Participants who were excellent health had higher proportion of frequently SME than others.

### **Depression and SME**

The prevalence of depression was 48.3% (95%CI: 46.9%-49.7%). Multivariate analyses found that the adjusted odds of depression were greater among who age 18-23 years (OR = 1.49, 95%CI: 1.12–1.99) and 23–30 years (OR = 1.54, 95%CI: 1.11–2.14). The decrease of self-rated health significantly accompanied the increased odds of depression. About the focus of this study, higher frequency of SME was insignificantly positively associated with the adjusted odds of depression after controlling for all covariates.

### **Anxiety and SME**

The prevalence of anxiety was 22.6% (95%CI: 21.4%-23.8%). Multivariate analyses found that that the adjusted odds of depression were greater among those aged 18–23 years (OR = 1.63, 95%CI: 1.06–2.51) and lower among those with age 23–30 years. The depression were greater among those with good/general/poor SRH (OR = 1.77, 95%CI: 1.41–2.21) compared with those with excellent SRH. About the focus of this study, frequently SME can increase the adjusted odds (OR = 1.72, 95%CI: 1.31–2.26) of anxiety compared with less SME after controlling for all covariates.

## **Discussion**

Social media platform was one of main channels updating the COVID-19 information. This study also found that 80.0% of participants frequently expose them to social media, and frequently SME associated high odds of anxiety and CDA, which is consistent with previous studies. There may be two reasons explaining the association between frequently SME and psychological problems. During COVID-19 outbreak, disinformation and false reports about the COVID-19 have bombarded on social media and created fears among many students which may confuse students and harm student’s mental health.

Besides, many students expressed their negative feelings, such as nervousness, anxiety, fear, worry, on social media, which are contagious social network. Finally, we also found students may suffer psychological problems.

## Conclusions

In conclusion, the result found that there was high prevalence of psychological problems among students of Kurukshetra University, which positively associated with frequently Social Media Exposure during the COVID-19 outbreak. These findings implicated the Indian government should pay more attention to psychological problems among students who were staying in hostels.

Fortunately, The Indian government have provided many mental health services by varied channel including online courses and consultations, but more attention should be paid to psychological problems like anxiety and depression. The Govt. should monitor and filter out false information and promote accurate information though social media.

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