

Social Media, Eating Attitude and Mood in University Students during Covid-19 Pandemic

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The COVID-19 pandemic has produced a worldwide health disaster that has deeply affected our understanding of our global and every-day lives. This study was designed to assess the relationship of Social Media, Eating Attitudes and Mood among female university students during COVID-19 pandemic. A cross-sectional survey design with a non-probability purposive sampling strategy was used. The study sample comprised of ($N=434$) female students with age range 18-29 years, from public and private sector universities all over Pakistan, from April 2021 to May 2021. Online data were collected through Google Forms. The assessment measures included a demographics information sheet, social media usage was assessed using the Social Media Engagement Questionnaire (SMEQ), eating attitudes were measured using the Eating Attitudes Test (EAT-26), and mood was assessed using the Brief Mood Introspection Scale (BMIS). The data were analyzed using correlation and hierarchical regression. The results revealed a significant negative correlation between eating attitudes and mood, and the hierarchical regression analysis revealed that eating attitudes were a significant predictor of mood among university students during the COVID-19. It can be concluded that during the COVID-19 pandemic, student's social media usage, their eating attitudes, and moods were affected. The findings can help health and education policymakers better understand the impacts of COVID-19 on university students.

Keywords: Social Media Usage, Eating Attitudes, Mood Predictors, Covid-19

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Introduction

The 2019 novel coronavirus (2019-nCoV) is also known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It originated in Wuhan, City of Hubei province in China, from where it has spread throughout the world. Coronavirus is a type of virus with enveloped positive sense RNA viruses with diameter of 60-140 nm. They are named coronavirus because of their spike-like projections on their surface, which gives the virus a crown-like appearance under the electron microscope (Richman et al., 2016). In December 2019, the virus appeared in the Chinese province Hubei's capital city, Wuhan. Local people showed up at hospitals with symptoms of severe pneumonia with no obvious cause. One common thing among the initial cases was their exposure to the wholesale seafood market of Huanan which was also involved in live animal trade. The surveillance system was activated in the city, and the patient's respiratory samples were well investigated in the reference labs.

China notified the World Health Organization on the 31st December 2019 of this outbreak and announced that the seafood market in Huanan was closed on 1st January 2020 (Wolf, 2020). The virus was identified on 7th January as a coronavirus, which showed similarity with other viruses, such as >95% and >70% with bat coronavirus and SARS-CoV, respectively. As the number of cases was increasing exponentially with no apparent exposure of individuals to the animal market, it was suggested that the virus had the ability of human-to-human transmission. (Huang et al., 2020). The first fatal case of coronavirus was reported on 11th January, 2020. On 28th January 2020, it was reported that the virus was transmitted to healthcare workers who were taking care of patients with coronavirus infections. The city of Wuhan, with 11 million populations, was put under strict lockdown with no entry or exit by 23rd January 2020. The lockdown extended soon to other cities in the province, and then to the rest of China and other countries (Pradhan, 2020). The cases of virus appeared in other countries in people who did not have any travel history to China. It gave the idea that the virus was spreading through human-to-human transmission among locals. The number of cases increased exponentially, and modeling studies showed that the doubling time of epidemics was 1.8 days. (Li et al., 2020).

The main symptoms of coronavirus include coughing, fever, trouble breathing, shortness of breath, chills sometimes with shaking, fatigue, headache, body aches, runny nose or congestion, sore throat, vomiting, loss of smell or taste, and stomach irregularity. The virus can cause severe conditions, such as heart problems, respiratory failure, liver problems, pneumonia, septic shock and death. The virus can cause complications because of the cytokines storm, in which the immune system is triggered to fill the bloodstream with inflammatory proteins called cytokines, which can lead to tissue killing or organ damage (Moses, 2020). Risk factors include either close contact with an individual suffering from COVID-19 within the range of 2 meters or 6 feet or being sneezed or coughed by the infected individual (Wolf, 2020). Coronavirus can be diagnosed by performing a molecular test. Sample for diagnosis can be taken from throat swab, septum, nasopharyngeal swab, endotracheal aspirates bronchioloalveolar lavage. Samples can also be collected from the stool and in some cases from the blood (Pradhan, 2020).

This global pandemic of COVID-19 as affected the entire human race. The virus spread all over the world, leaving the healthcare systems of the entire world paralyzed. The virus is transmitted exponentially, resulting in high levels of anxiety and fear among individuals about getting infected. As a result, the free movement was restricted, and a lockdown was implemented across all countries. Being in quarantine, not being able to see others physically, the only mean of staying in touch with others was social media. Therefore, social media usage surged as it became the primary means of staying in touch with others, providing critical information about COVID-19, precautionary measures, and tips for boosting health and immunity, highlighting the country's increasing dependence on these platforms. The lockdown and quarantine situation has an impact on people's eating attitudes and moods. So, it is very important to examine these impacts.

Social media is a computer or electronics-based innovation that is used for sharing thoughts, considerations, and information about almost everything. It can be considered a process of creating and sharing content, or interfacing on the web to improve associations, with others (2019). Social media is the fastest-growing source of communication among people. It has data about a variety of things. It can be used to record

information, take photographs, save them and share them with others. Users can use computers, mobile phones and tablet, to assess social media and use it for informing others and for a variety of purposes. (Dollarhide, 2019).

Social media were generated as a means to communicate with friends and family and people who live far away. A lot of social media sites are becoming popular day by day and are frequently used. During Coronavirus pandemic people are disengaged from their companions, family members and individuals. The only source of communication is online media. It was considered to study the effect of online or social media on youth, particularly students, during this pandemic to examine their use of web-based media and its effects on them (Hamilton et al., 2020).

A study conducted in Wuhan to explore the perceived relationship between the use of social media and the psychological toll due to the COVID-19 at the peak of the pandemic showed that both secondary trauma and depression had a relationship with the social media usage, but no relationship was found with mental health level. The use of social media was no less than a blessing to the people of Wuhan, as social media helped them obtain emotional, peer and informational support during the virus. This study also highlights the drawbacks of social media as it can result in mental health problems. The best way to use social media is to take breaks to prevent the harmful impacts of excessive social media use during pandemic (Zhong et al., 2021).

A study was conducted to evaluate whether the increase in the use of digital tools by individuals at risk has reduced the negative impacts of COVID-19 pandemic or not. There was evidence specifically under lockdown conditions that showed a positive relationship between involvement with digital media, physical activity and overall smartphone use. Results showed that during the pandemic, individuals' smartphones usage was mainly to get social support so that the negative impacts of the pandemic can be alleviated (Norbury et al., 2020).

Eating attitudes include thoughts, feelings, beliefs, relationships with food and behavior. These attitudes can affect people's health status and food choices. The relationship with food can also be influenced by eating attitudes such as people eat as a result of their emotions etc. (Santos, 2012). The effects of global COVID pandemic on the food priorities of

individuals were explored in some initial research. It was observed that food searches on social media increased during the covid pandemic. As the virus continued to be spread, the search for restaurants was replaced with the food recipes and the delivery services. Although diet concerns decreased, people were still searching for different foods such as fresh vegetables and fruits, meat and dairy products and information about cooking and storage of the food etc. (Laguna et al., 2020).

Eating attitudes that are considered normal include a complete understanding of the function of food in life, and emotional, social, and psychological roles. Considering eating attitudes, food choices are not merely based on nutritional value. (Santos, 2008). Eating attitudes that are considered abnormal include improper self-control about food, inappropriate eating attitudes and distorted form of body image. (Miller et al., 1991). Disorders are psychological conditions that can result in eating habits that are unhealthy. Eating disorders are related to psychological aspects. They commonly involve disturbed eating behaviors and attitudes. (Pourghassem et al., 2011).

Anorexia nervosa is potentially harmful because it involves severe weight loss and starvation. It includes low level of energy intake as compared to the body's requirements which can lead to severely low body weight as compared to person's age, physical health, sex, and developmental path. Though the patient's weight has already decreased significantly, but the patient still has a fear about gaining weight or becoming obese, so they have performed such behaviors that hinder their weight gain. Concerns about body weight and body shape have become so severe that the seriousness of the symptoms of such disorder as low body weight and starvation has been ignored (Debra & Emily, 2000).

Bulimia nervosa includes a cycle of binge eating and self-directed vomiting to compensate for the impact of binges. Diagnosis of bulimia nervosa involves recurring episodes of binges and recurring compensatory behavior in order to prevent the increase in weight. These compensatory behaviors may include vomiting. Individuals become critical of their body shape and weight (Debra & Emily, 2000).

Binge eating disorder includes recurrent episodes of eating huge amount of food quickly and until eating reaches to the point of discomfort for the individual. Such episodes of binge eating involve eating very

quickly until, the level of discomfort or the consumption of huge quantities of food even when the person is not hungry. Such individuals usually eat alone to prevent embarrassment; they also feel bad and guilty for their binge eating behavior, but no compensation is present here (Debra L, & Emily B, 2000).

During global coronavirus pandemic, almost every country imposed lockdowns and people were restricted to their homes. To deal with boredom and leisure people adopted compensatory behaviors which also include eating more food. (Moynihan et al., 2015). Full-time news coverage in the media can also work as a trigger which can cause stress among people. As a result, people consume more sugary food (Yilmaz, 2020). Apart from the fact that carbohydrate-rich food are preferred for stress reduction and mood uplift because of their serotonin production, carbohydrate rich food increases the rate of obesity and as a result, other related disorders. Sleep routines are also disturbed because of the quarantine, so in order to deal with that stress, people eat more (Muntner et al., 2004).

It was observed that quarantine led to stress eating. Therefore, nutrition is very important in this regard. Foods with high nutritional value, that efficient promote, serotonin production and boosting immunity should be prioritized. Meals should be planned properly. Thinking positively is one of the most important strategies (Giovanna et al., 2020). Healthy eating can be beneficial for improving one's mood, so what to eat should be taken seriously as it can either improve the mood or make it worse.

In psychological terms, mood may be characterized as an affective state or internal state of feeling. Rather than feelings or emotions, mood is less explicit, less exceptional and less likely to be initiated up by a specific motive or occasion. Temperaments are regularly portrayed as having either positive or negative valence. As such, individuals ordinarily talk about feeling acceptable or a terrible state of mind (Schinnerer, 2007). One can be sent into a mind set by an unforeseen occasion, from the bliss of seeing an old companion to the annoyance of finding disloyalty by an accomplice. He/she may also fall into a mood (Schinnerer, 2007).

The restrictions imposed by COVID-19 pandemic can adversely affect mental and emotional well-being. It can cause mood swings, lifestyle might be changed by living in quarantine and not being able to

meet others. Staying at home all the time can cause boredom. The COVID-19 pandemic fundamentally affected public emotional well-being. In this manner, checking and examined people's psychological well-being during emergencies, like a pandemic, is a quick need. A study conducted to analyze the current exploration works and discoveries comparable to the predominance of stress, tension and despondency in everyone during the COVID-19 pandemic showed that the predominance of stress was 29.6, the pervasiveness of uneasiness was 31.9% and the commonness of melancholy was 33.7%. Coronavirus causes actual worries of wellbeing and results in various mental problems. The spread of the new Covid can affect the psychological well-being of individuals in various networks. So, it is crucial to safeguard the emotional wellbeing of people and create mental intercessions that can improve the psychological well-being of weak gatherings during the COVID-19 pandemic (Salari et al., 2020).

Students are also adversely affected by the covid-19 situation. Numerous students were advised to leave their homes during spring break and to finish their semester distantly. A study conducted to assess the impacts of this interruption on students' prosperity, increased symptoms of mood disorders, stress and alcohol consumption among them, showed that members in spring 2020 revealed more mind-set problem manifestations, perceived stress, and liquor use than did pre-pandemic members and stress over COVID-19 was adversely connected with prosperity. By fall 2020, indications had to a great extent returned to pre-pandemic levels. Typically, White understudies detailed a more noteworthy impact of the pandemic on prosperity than African American understudies did. Youthful grown-ups seem, by all accounts, to be less defenseless against the most genuine unexpected problems related to COVID-19, yet regardless experience mental impacts of the pandemic. Colleges and professionals who work with understudies can assist youthful grown-ups with dealing with their conditions and keep them away from practices like unsafe liquor use when faced with stressors, such as the COVID-19 pandemic (Charles et al., 2021).

Literature Review

The literature review of the impact of social media during the COVID-19 pandemic encompasses various studies, each shedding light on different facets of this dynamic relationship. Hussain (2020) focused on Pakistan,

invested, social media's role in influencing public adherence to COVID-19 prevention measures. The study underscored social media's potential to disseminate information widely, aiding prevention efforts, but also highlighted its darker side by contributing to panic and spreading misinformation. Lima et al. (2020) delved into the psychological implications in China, and revealed a high prevalence of mental health issues linked to frequent social media exposure, emphasizing the need for mental health considerations during the pandemic. Gao et al. (2020), also in China, furthered this exploration, finding a substantial prevalence of depression and anxiety during the pandemic, particularly among those frequently exposed to online media. Moving to Wuhan, hong et al. (2021) examined the perceived relationship between social media usage and psychological well-being during the peak of the pandemic, revealing a nuanced dynamic in which social media was both a source of support and a potential contributor to negative mental health outcomes.

Drouin et al. (2020) shifted their focus to the United States, investigating parents' perceptions of social media use during the pandemic's early stages. They identified increased social media use, especially among anxious individuals, and emphasized the need for cautious and responsible use during crises. Hamilton et al. (2020) addressed the impact on teenagers by, exploring how social media both positively and negatively affected their physical and mental health during the pandemic, offering practical guidance on responsible use. Cauberghe et al. (2020) contributed insights into adolescents' use of social media as a coping mechanism for anxiety and loneliness, highlighting the nuanced effects of different coping strategies. Norbury et al. (2020) examined the use of digital tools by individuals at risk, revealing a positive relationship between digital media use, physical activity, and social support seeking through smartphones during the pandemic. Finally, Cato et al. (2021) delved into Japan, evaluating the effects of social media on individual health behaviors. The study found that while users adhered to preventive measures, they also engaged in scientifically unreliable practices, illustrating the dual impact of social media during the pandemic. Collectively, these studies underscore the intricate interplay between social media and various dimensions of public health and well-being during the COVID-19 crisis.

The synthesis of literature exploring the intricate relationship between COVID-19 and eating attitudes provides comprehensive insights into the psychological repercussions of the pandemic on individuals' interactions with food. Nutley et al. (2021) focused on the global impact by delving into online discussions about eating disorders on Reddit. Their thematic analysis revealed six major themes, emphasizing shifts in symptoms, exercise routines, quarantine effects, emotional well-being, help-seeking behaviors, and associated health risks. Mental health was commonly negatively affected, and Reddit forums acted as virtual therapeutic platforms during stressful periods.

Sidor & Rzymiski (2020) conducted a cross-sectional online study in Poland, revealing changes in dietary habits during the pandemic, with over 43% reporting increased eating. Weight gain was associated with less frequent consumption of vegetables and more adherence to meat, dairy, and fast food, underscoring the need for integrated nutritional support during lockdowns. Soon et al. (2021) explored the impact of the pandemic on sanitation knowledge and practices related to food handling in Indonesia and Malaysia. Positive attitudes and high adherence to safe practices were reported, with the Theory of Planned Behavior helping to understand consumers' intentions for safe eating out measures. Robertson et al. (2021) investigated perceived changes in eating, exercise, and self-perception during the UK lockdown and revealed, significant individual differences. Women reported increased struggles with regulating eating, food preoccupation, and worsened self-perception, while those with eating disorder diagnoses faced greater challenges. Cooper et al. (2020) examined the pandemic's impact on individuals with eating disorders and highlighted the role of weight-stigmatizing content on social media, emphasizing the need for practical stress management strategies.

Rebecca et al. (2020) explored the relationship between weight stigma during the pandemic and various outcomes, revealing vulnerability to stress and disordered eating. Duong et al. (2020) assessed the relationship between changes in eating behavior and Diet Literacy (DDL) among medical students, and found that higher DDL scores were correlated with healthier eating attitudes. Serin & Koç (2020) studied the eating practices and depressive conditions of college students during the pandemic, finding significant differences but no significant relationship

between eating behavior and depression. Shen et al. (2020) investigated how emotional eating mediated the relationship between perceived stress and food choice intentions, and revealed associations between stress, emotional eating, and food choices. Laguna et al. (2020) observed changes in people's attitudes and actions toward food during the pandemic, noting a shift in online searches from coronavirus information to food and crisis information. Finally, Alpaslan et al. (2015) and Koçak et al. (2015) explored the association between disordered eating attitudes and internet addiction among nonclinical youngsters, revealing significant positive correlations, particularly in individuals with higher body mass index, male gender, and existing disordered eating attitudes.

Research on the impact of COVID-19 on the mood of individual provides valuable insights into the psychological consequences of the ongoing pandemic. Zhao et al. (2020) conducted a study on the global population using, the Beck Anxiety Inventory (BAI) to assess anxiety levels during the COVID-19 outbreak. The results indicated higher anxiety scores among individuals isolated from potential infections and those in high epidemic areas. Terry et al. (2020) explored mood responses during the global pandemic restrictions, revealing elevated scores for depression, anger, confusion, fatigue, and tension, emphasizing the greater risk of mental health issues.

Perez-Fuentes et al. (2020) investigated the cognitive and emotional impact of COVID-19 in the Spanish population, and found positive associations between perceived threat, negative affect, and emotional symptoms. Salari et al. (2020) analyzed global prevalence rates of stress, anxiety, and depression during the pandemic, highlighting the need for mental health interventions. Charles et al. (2021) studied the impact of pandemic-related disruptions on students' well-being. They reported increased mood disorder symptoms during the initial phase, with effects persisting into the fall semester. Campos et al. (2021) explored the mental health of pharmaceutical students, and revealed higher prevalence of depression during the pandemic. Chang et al. (2020) investigated exercise behavior changes and mood during the pandemic, finding that maintaining exercise frequency was positively correlated with better mood states.

Lopez-Bueno et al. (2020) examined the relationship between physical activity adherence and mood during COVID-19 confinement, and

showed that maintaining activity was correlated with lower anxiety and better mood. Asmundson et al. (2020) studied individuals with pre-existing anxiety or mood disorders and found higher COVID-19-related stressors and distress in these groups. Rheenen et al. (2020) investigated the impact of COVID-19 on individuals with mood disorders, revealing higher psychological distress, lifestyle changes, and concerns about financial issues among this population. Overall, these studies underscore the complex interplay between the pandemic and individuals' moods' emphasizing the importance of mental health interventions and support during these challenging times.

Rationale of the Study

COVID-19 has adversely affected various aspects of daily life throughout the world. We examined the impact of social media and eating attitudes on mood among female university students during the COVID-19. The aim of this research was to understand the consequences social media can have on female university students during the pandemic. The use of social media is beneficial to a certain extent in creating awareness among students (Hamilton et al., 2020). Being shifted to an online education system, students can use it for academic purposes, obtain information and communicate with others, but on the other hand, they can be exposed to false information, which can lead to panic and anxiety among students. Uses and Gratification Theory (UGT) focuses on how people use media for specific purposes rather than studying the effects of media on individuals (Katz, Blumler, & Gurevitch, 1974). It suggests that users bring their own goals to social media, such as seeking entertainment or fulfilling needs, and make decisions based on the value of the media content they consume (Moreno, 2016).

Social-Penetration Theory explains how closeness in relationships develops gradually in relationship starting from superficial levels and progressing to deeper, personal levels (Altman et al., 1981). This theory can be applied to online social networks by categorizing information into public, private, and semi-private layers, which can be monitored and managed based on the frequency and mode of communication (Gaudin, 2010). McLuhan's Media Theory emphasizes that the medium of communication (e.g., social media) shapes individuals and society more than the actual content of the media (McLuhan, 1995). It categorizes media

into "cool" and "hot" types based on the level of effort required from the audience. For instance, social media platforms like Twitter impact behavior not only because of their content but also because of their communication style and constraints (Parr, 2009). Regarding the impact of the COVID-19 pandemic on mental and emotional well-being, it's noted that factors like changes in lifestyle, boredom, and exposure to tempting content on social media can influence eating habits and mood, potentially affecting both physical and mental health (Cooper et al., 2020). Research is needed to explore the relationship between social media usage, eating patterns, and emotional well-being (Gao et al., 2021).

The prevalence of obesity, which is not classified as an eating disorder, is a significant public health issue (Finkelstein et al., 2004) due, to its association with conditions like hypertension, cancer, cardiovascular diseases, and diabetes (Munter et al., 2004). Stress-related preferences for carbohydrate-rich foods, which are known for their serotonin production, contribute to obesity rates. Moreover, disrupted sleep patterns during quarantine intensify stress-eating behaviors. Addressing this requires a focus on nutrition, particularly during pandemics when access to food is crucial yet gatherings must be minimized. Nutrient-rich foods that boost immunity and serotonin levels, alongwith meal planning and positive thinking strategies, becomes paramount (Giovanna et al., 2020). This approach not only supports physical health but also improves mood, underscoring the importance of mindful food choices when managing stress-induced eating patterns. Staying home all day has also affected eating habits (Sidor & Rzymiski, 2020). Studies have reported eating-related problems during the pandemic (Cooper et al., 2020) and obesity (Mattioli et al., 2020). Therefore, it is important to study eating patterns of university students to investigate how they patterns vary and how these are related to social media use and mood changes. There seems to be a great impact of lockdown on emotional and mental well-being of university students, studies have reported an increase in psychological problems among students (Charles et al., 2021).

Heidegger's Theory of Mood posits that mood is a revealing state that allows us to experience the world and give meaning to our experiences, emphasizing its role in shaping our orientation and understanding of existence (Heidegger, 1962). Summation theory views

moods as the combined result of conscious emotions at a given moment (Lormand, 1985), while the Precondition Theory suggests that moods are fundamental in shaping our emotional responses and beliefs. In contrast, the Generalization Theory views moods as generalized feelings about the world that are, not tied to specific events but influence our overall perception and evaluation of reality (Lormand, 1985). The COVID-19 pandemic has significantly impacted public mental well-being, especially among students facing challenges such as online education, remote work, and social isolation (Hamilton et al., 2020). These changes have also affected eating patterns and attitudes, contributing to psychological issues. This study aims to explore the relationship between social media usage, eating attitudes, and mood among university students, considering their multifaceted influences on their psychological and emotional states (Serin & Koç, 2020).

This study has provided a clear understanding of how university students are being affected by COVID-19, not only in terms of physical health but also in terms of mental health and well-being. The present study will create awareness among common people about covid and its related problems that could be helpful for students to obtain emotional support from others in order to improve their grades and optimize their psychological and physical well-being. Psychologists and counselors might benefit from this research by, providing counseling to students, to help them cope with stress, depression and anxiety, health psychologists can help them improve eating habits. This research can also help policy makers to develop a system that is more appropriate for students and can improve their academic performance and by providing better pages, communities, and bloggers that provide online support to students and provide accurate information. Therefore, we can say that this research can be helpful in improving the student's physical, mental and emotional well-being during this pandemic.

Objectives of the Study

The objectives of this study are to determine the relationship among social media, eating attitudes and mood in female university students during the COVID-19 pandemic. The predictors of mood among female university students during Covid-19 pandemic.

Hypotheses of the Study

The following hypotheses of the present study were formulated based on a literature review of social media, eating attitudes and moods among female university students during the covid-19 pandemic in university students.

1. It is hypothesized that social media usage, poor eating attitudes, and mood are correlated in female university students during COVID-19 pandemic.
2. To identify the predictors of mood among female university students during the Covid-19 pandemic.

Method

Research Design

The research design used in this research was Correlation (cross-sectional) approach. In this design, data were collected through questionnaires.

Sample and Sampling Strategy

A convenience sampling strategy was used to recruit 434 female university students with, an age criteria ranging from 18 to 29 years (M=20.49; S.D=1.91). Due to the Covid-19 pandemic restrictions, it was not possible to approach students physically, so all the data was collected online through Google forms. This strategy allowed for efficient data collection through Google forms.

Inclusion and Exclusion Criteria

Female university students who use social media (minimum 3 hours per day) were included. Female university students with eating disorders, mood disorders or other psychological or physiological conditions were excluded from the sample. Pregnant women were also not included in the study.

Table 1

Demographic Characteristics of Sample (N =434)

Variable	Category	<i>f</i>	%	M	SD
Gender	Female	434	100	1.00	0.00
Age				20.49	1.91
Education Level	B.S	377	86.9		
	MS	36	8.3		
	PhD	3	0.7		
	Other	18	4.1		
Discipline	Social Science	159	36.6		
	Pure Science	93	21.4		

	Arts	17	3.9		
	Languages	66	15.2		
	Other	99	22.8		
Perceived Social Economic Status	Lower class	16	3.7		
	Lower-Middle class	25	5.8		
	Upper –Midle class	280	64.5		
	Upper class	113	26.0		
Family Income		00	00		
	Below 50,000	178	41.0		
	50,000 to 1,00,000	189	43.5		
	Above 1,00,000	67	15.4		
Family Type	Nuclear Family	282	65.0		
	Joint Family	152	35.0		
Weight				57.35	10.77
Height				5.32	0.24

Measures

The scales used in this research are as follows:

- Social Media Engagement Questionnaire (Przybylski et al., 2013).
- Eating Attitudes Test (EAT-26) (Garner et al., 1982)
- Brief Mood Introspection Scale (Mayer et al., 1988).

Social Media Engagement Questionnaire (Przybylski et al., 2013).

In the present study, a social media engagement questionnaire was used to measure the use of social media by female university students during the COVID-19 pandemic. It consists of five items measuring social media usage patterns throughout different parts of the day from the time one gets up in the morning to the time they go to bed (Tavakol & Dennick, 2011). The items were rated on an eight-point scale ranging from 0 (never) to 7 (everyday), with a minimum criterion for usage to be 3 hours per day (Przybylski et al., 2013). Individual scores can be computed by summing responses to all five items and forms a reliable composite measure ($\alpha = .82$ to $.89$) (Przybylski et al., 2013). Higher score is showing greater usage of social media and lower score is showing lesser usage of social media (Przybylski et al., 2013).

Eating Attitudes Test (EAT-26) (Garner et al., 1982). The eating attitude test EAT-26 was created originally in 1979 by David Garner. Its modified version was given in 1982. This new version is used widely as a self-reporting questionnaire. It consists of 26 items that are standardized

measures for self-reporting of concerned characteristics and symptoms of eating disorders. The eating attitude test has been an effective tool for screening of anorexia nervosa in different populations (Garner & Garfinkel, 1979). It is equally useful to administer individually or in group settings. Its design is made to be used by school counselors, camp counselors and mental health professionals to gather information and make inferences about the referral of individuals to specialists for the evaluation of eating disorders. Its design is best suited to adolescents and adults (Garner & Garfinkel, 1979). The design of the eating attitude test is not suitable for making diagnosis about eating disorders. So, it is not recommended for consultation or making a professional diagnosis. It is advised to use it as screener of eating disorders. Although it has high validity and reliability, but it is not valid enough to make specific diagnoses (Garner et al., 1982). For scoring of EAT-26, items 1-25 are scored as: Never= 0, Rarely=0, sometimes=0, often=1, usually=2, always=3. The scoring for last item 26 is in reverse order as Never= 3, Rarely=2, sometimes=1, often=0, usually=0, always=0. If the individual scores are greater than 20, it is an indication of the greater concerns regarding body weight, problematic eating attitudes, and dieting. So, it shows further the need for evaluation by a professional. If the individual scores are below 20, there is still an indication of serious level eating problems. For interpreting the results, the Ideal body weight's percentage's current BMI and weight history of the subject is also considered (Garner & Garfinkel, 1979).

Brief Mood Introspection Scale (Mayer et al., 1988). In the present study, the brief mood introspection scale was used to measure mood among university students during the COVID-19 pandemic. The Brief mood introspection scale consists of 16-mood adjectives, such as “happy” and “fed up” that participants use to rate their current mood state (Mayer et al., 1988). The first mood adjective scales originated in the early 1950s in response to the development of mood-altering pharmaceuticals—which had shown early promise for the treatment of mood and anxiety (Nair et al., 1956). For these scales, respondents were instructed to rate the degree to which adjectives such as happy, angry, or sad described their current mood. Cronbach's alpha reliability ranged from 0.76 to 0.83 (Mayer et al., 1988). The adjective or phrase XX describes the mood definitely does not feel, X describes do not feel, V describes slightly feel and VV describes definitely feel. The negative items on the scale were

scored using. A high score indicates a very pleasant mood and a low score on scale indicates very unpleasant mood (Mayer et al., 1988).

Procedure

The study proposal was developed and approved by the ethics board and BOS. Because of the COVID-19 pandemic, the survey and data collection were conducted online. The consent was obtained from the research participants. The present study was conducted in two phases. First, the pilot study was conducted with a sample size of $n=30$ including participants both men and women with age ranging from 18-29 years. There were no ambiguities in the pilot study. Therefore, in the second phase, the original study was conducted. The questionnaire was shared on different online platforms, i.e. WhatsApp, Facebook, and Instagram etc. The participants were informed about the aim of the study and its procedure. Participants were assured that their information would be kept confidential. The participants of this study belonged to different public and private sector universities, engineering, and medical colleges. After data collection, data analysis was performed using the SPSS software. The different variables were coded for better understanding and analysis.

The data analysis was performed using SPSS. Different analysis operations were applied to the data to obtain the results. These include correlational analysis, regression analysis and t-tests. The mean, median, and mode of different variables were measured, and frequency tables were created. Some important ethical concerns that were considered while performing this research were: autonomy, confidentiality, and informed consent.

Results

The current study assessed the relationship between Social Media, Eating Attitudes and Mood among female university students during the COVID-19 pandemic. To test the correlations, Pearson's Product Moment Correlations were used and for prediction, Linear Regression Analysis was performed.

Table 2

Correlation Matrix of Social Media, Eating Attitudes and Mood among Female University Students during COVID-19 Pandemic (N= 434)

Sr no.	Variables	N	1	2	3
1.	SMU	434	-----	.03	.05
2.	EA	434		-----	-.16**
3.	M	434			-----

Note: SMU= Social Media Usage; EA= Eating Attitudes; M= Mood, **p<.01. ***p<.001

Table 2 shows the relationships among the studied variables. Results showed there is an only significant negative correlation between eating attitudes and mood.

Table 3

Hierarchical Linear Regression Model showing Social Media Usage and Eating Attitudes as Predictors of Mood among University Students during the Covid-19 Pandemic (N=434)

Predictors	B	SE B	B	R ²	ΔR ²
				.04*	4.86
Constant	24.51	1.72	-----		
SMU	.02	.01	.06		
EA	-.04	.01	-.18*		

Note: SMU= Social Media Usage; EA= Eating Attitude, *p<.05. **p<.01 ***p<.001

Table 3 presents the hierarchical regression analysis that revealed that eating attitude ($r=-.168^{**}p<0.01$) was a significant predictor of mood among female university students during COVID-19 pandemic but the other variable, social media usage ($r=0.21$ $p>0.01$) was not a significant predictor of mood among female university students during the COVID-19 pandemic.

Discussion

The hypothesis attempted to find the relationship among social media usage, eating attitudes, and moods among female university students during the COVID-19 pandemic. Correlation analysis was used to find the

relationship among variables. No significant correlation was found between increased social media use and poor eating attitudes. It is not always the case that the increased usage of social media leads to poor eating attitudes. However, positive changes were also seen during the COVID-19 situation. People's dietary choices and eating habits have changed. People use social media to search for different diets and meal plans during pandemic situations. Instead of getting stressed and doing stress eating, people use social media for learning new recipes, new safety measures and gain knowledge about the SOPs and important information regarding food (Soon et al., 2021).

In addition, no significant correlation was found between increased social media usage and unpleasant moods. Social media are not always involved in unpleasant moods. Because it is one of the major sources of recreation and communication between friends and family members during these hard times, it is a major source of information about the spread and the precautions to prevent. It also depends on the nature of the use of social media, which can lead to either a pleasant or unpleasant mood. Many businesses have shifted online as people prefer online shopping and work from home. It helped them cope with feelings of loneliness and learning during the lockdown and to be in touch with family and friends. It was a useful tool for people in dealing with sudden changes in their normal routines, such as social distancing and absence of physical contact with the near and dear ones (Cauberghe et al., 2020).

The study found a significant negative correlation among poor eating attitudes and mood, which means that this hypothesis is accepted with strong evidence. It was observed that people's dietary choices were influenced by their mood during the pandemic situation. Many people were seen involved in detail eating and eating more food during these situations, especially the overweight and the obese people were highly influenced. It was observed that there was less utilization of fresh vegetables, fruits, and organic products. Instead, people used more meat, dairy, and quick food sources. Liquor use also showed an increased percentage of usage. The smoking rate were also increased among the smokers. As people were bound to stay home, especially females they spent most of their time in kitchen, cooking and trying out new dishes, and cooking large quantities of food for their family members. All these factors triggered unpleasant moods and led to disturbed eating attitudes (Sidor, A., & Rzymiski, P. 2020).

The hypothesis attempted to find predictors of mood among female university students during the COVID-19 pandemic. Hierarchical regression analysis was used to analyze eating attitudes and social media

use as predictors of mood among female university students during the COVID-19 pandemic. The results of hierarchical regression analysis revealed that eating attitude was a significant predictor of mood among female university students during the COVID-19 pandemic, whereas social media usage was not a significant predictor of mood among female university students during COVID-19 pandemic. Eating attitude of female university students significantly predicts their mood. Being in unpleasant mood, students may turn to food as a coping mechanism against stress, anxiety, depression and other mental health concerns. Emotional over-eating or under-eating may be a response to anxiety, stress or sad mood. Therefore, eating attitudes can predict mood. (Coakley et al., 2021). Results showed that social media usage was not a significant predictor of mood among female university students. This may have occurred because social media was the only source of communication during this pandemic situation. It was a source of information on various things, like corona virus, its symptoms, causes and prevention. It can be used to look for ways to boost immunity. (Hussain, 2020). It served as a source to stay in touch with friends, peers and colleagues. Social media was also a source of online shopping. Being stuck at home and not able to go out, numerous people used an online shopping system. (Mason et al., 2021). Therefore, we can assume that social media served as a source of communication and interaction but did not serve as a predictor of mood.

Conclusion

This study aimed to investigate the impact of social media usage and eating attitudes on the mood of female university students during the COVID-19 pandemic. The results revealed that social media usage has no negative impact on the mood of university students during the COVID-19 pandemic, and social media usage has no impact on the eating attitudes of university students. However, the results showed that eating attitudes have an impact on mood among university students during COVID-19 pandemic, i.e., poor mood can lead to poor eating attitudes, there is a positive correlation between them. Results also revealed that the eating attitude of the participants was predicted their mood, but their social media usage did not predict the mood of female university students during the COVID-19 pandemic.

Limitations of the Study

Data were collected online due to the COVID-19 pandemic restrictions. This research was limited to only female and university students with an age range of 18-29 years. Female university students with any eating disorders, mood disorders or other psychological or physiological conditions were excluded from the sample. Pregnant women

were also not included in the study. Only the first part of scale EAT-26 was used to measure the participants' eating attitudes which consisted of 26 items. The entire scale was not used.

Recommendations and Suggestions of the Study

The inclusion criteria includes female students only, but the research should be extended to other people along with students and different genders should be included. As this research was applied to healthy individuals only, it should be extended to people with no disorder to assess the impacts of COVID-19. Physical data collection can be implemented to improve the results.

Implications of the Study

The research findings can help health and education policy makers to better understand the impacts of COVID-19 on university students.

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