



Noor ul ain Ahmad¹, Iqra Fida², Iram Shahzadi³

Abstract

The use of social media is incomparably on the rise among students, influenced by the globalized forms of communication and the post-pandemic rush to use multiple social media platforms for education in different fields of study. Though social media has created tremendous chances for sharing ideas and emotions, the kind of social support it provides might fail to meet students' emotional needs, or the alleged positive effects might be short-lasting. In recent years, several studies have been conducted to explore the potential effects of social media on students' affective traits, such as stress, anxiety, depression, and so on. Correlational research design was used to conduct this quantitative study. Survey was administered as method of data collection. Convenient sampling technique was employed to select 200 university students as sample of study. Data were analyzed on SPSS. Findings of the study reveal that use of social media is significant positive predictor of depression, anxiety and stress among university students. Moreover, female university students were found with greater level of using of social media, depression, anxiety and stress.

Keywords: Use of social media, depression, anxiety, stress

1. Introduction

Social media has turned into an essential element of individuals' lives including students in today's world of communication. Its use is growing significantly more than ever before especially in the post-pandemic era, marked by a great revolution happening to the educational systems. Recent investigations of using social media show that approximately 3 billion individuals worldwide are now communicating via social media (Iwamoto and Chun, 2020). This growing population of social media users is spending more and more time on social network groupings, as facts and figures show that individuals spend 2 h a day, on average, on a variety of social media applications, exchanging pictures and messages, updating status, tweeting, favoring, and commenting on many updated socially shared information (Abbott, 2017). Researchers have begun to investigate the psychological effects of using social media on students' lives. Chukwuere and Chukwuere (2017) maintained that social media platforms can be considered the most important source of changing individuals' mood, because when someone is passively using a social media platform seemingly with no special purpose, s/he can finally feel that his/her mood has changed as a function of the nature of content overviewed. Therefore, positive and negative moods can easily be transferred among the population using social media networks (Chukwuere and Chukwuere, 2017; Hassan, 2024). This may become increasingly important as students are seen to be using social media platforms more than before and social networking is becoming an integral aspect of their lives. As described by Iwamoto and Chun (2020), when students are affected by social media posts, especially due to the increasing reliance on social media use in life, they may be encouraged to begin comparing themselves to others or develop great unrealistic expectations of themselves or others, which can have several affective consequences. Considering the increasing influence of social media on education, the present study aims to focus on the affective variables such as depression, stress, and anxiety, and how social media can possibly increase or decrease these emotions in student life.

2. Literature Review

2.1. Psychological effects of Social Media

Before getting down to the effects of social media on students' emotional well-being, some exemplary works of research in recent years on the topic among general populations are reviewed. For one, Aalbers et al. (2018) reported that individuals who spent more time passively working with social media suffered from more intense levels of hopelessness, loneliness, depression, and perceived inferiority. For another, Tang et al. (2013) observed that the procedures of sharing information, commenting, showing likes and dislikes, posting messages, and doing other common activities on social media are correlated with higher stress. Similarly, Ley et al. (2014) described that people who spend 2 h, on average, on social media applications will face many tragic news, posts, and stories which can raise the total intensity of their stress. This stress-provoking effect of social media has been also pinpointed by Weng and Menczer (2015), who contended that social media becomes a main source of stress because people often share all kinds of posts, comments, and stories ranging from politics and economics, to personal and social affairs. According to Iwamoto and Chun (2020), anxiety and depression are the negative emotions that an individual may develop when some source of stress is present. In other words, when social media sources become stress-inducing, there are high chances that anxiety and depression also develop.

Charoensukmongkol (2018) reckoned that the mental health and well-being of the global population can be at a great risk through the uncontrolled massive use of social media. These researchers also showed that social media sources can exert negative affective impacts on teenagers, as they can induce more envy and social comparison. According to Fleck and Johnson-Migalski (2015), though social media, at first, plays the role of a stress-coping strategy, when individuals continue to see stressful conditions (probably experienced and shared by others in media), they begin to develop stress through the passage of time. Chukwuere and Chukwuere (2017) maintained that social media platforms continue to be the major source of changing mood among general populations. For example, someone might be passively using a social media sphere, and s/he may finally find him/herself with a changed mood depending on the nature of the content faced. Then, this good or bad mood is easily shared with others in a flash through the social media. Finally, as Alahmar (2016) described, social media exposes people especially the young generation to new exciting activities and events that may attract them and keep them engaged in different media contexts for hours just passing their time. It usually leads

¹ Corresponding Author, Bahauddin Zakariya University, Multan, Pakistan, noorulainahmad0099@mail.com

² Bahauddin Zakariya University, Multan, Pakistan, iqrabhatti430@gmail.com

³ International Islamic University Islamabad, Pakistan, iram.phdeducation@gmail.com

to reduced productivity, reduced academic achievement, and addiction to constant media use (Alahmar, 2016). The number of studies on the potential psychological effects of social media on people in general is higher than those selectively addressed here. For further insights into this issue, some other suggested works of research include Chang (2012), Sriwilai and Charoensukmongkol (2016), and Zareen et al. (2016). Now, we move to the studies that more specifically explored the effects of social media on students' affective states.

2.2. Influences of Social Media on Students

Vygotsky's mediational theory (see Fernyhough, 2008) can be regarded as a main theoretical background for the support of social media on learners' affective states. Based on this theory, social media can play the role of a mediational means between learners and the real environment. Learners' understanding of this environment can be mediated by the image shaped via social media. This image can be either close to or different from the reality. In the case of the former, learners can develop their self-image and self-esteem. In the case of the latter, learners might develop unrealistic expectations of themselves by comparing themselves to others. As it will be reviewed below among the affective variables increased or decreased in students under the influence of the massive use of social media are anxiety, stress, depression, distress, rumination, and self-esteem. These effects have been explored more among school students in the age range of 13–18 than university students (above 18), but some studies were investigated among college students as well. Exemplary works of research on these affective variables are reviewed here. In a cross-sectional study, O'Dea and Campbell (2011) explored the impact of online interactions of social networks on the psychological distress of adolescent students. These researchers found a negative correlation between the time spent on social networking and mental distress. Dumitrache et al. (2012) explored the relations between depression and the identity associated with the use of the popular social media, the Facebook. This study showed significant associations between depression and the number of identity-related information pieces shared on this social network. Neira and Barber (2014) explored the relationship between students' social media use and depressed mood at teenage. No significant correlation was found between these two variables. In the same year, Tsitsika et al. (2014) explored the associations between excessive use of social media and internalizing emotions. These researchers found a positive correlation between more than 2-h a day use of social media and anxiety and depression.

Hanprathet et al. (2015) reported a statistically significant positive correlation between addiction to Facebook and depression among about a thousand high school students in wealthy populations of Thailand and warned against this psychological threat. Sampasa-Kanyinga and Lewis (2015) examined the relationship between social media use and psychological distress. These researchers found that the use of social media for more than 2 h a day was correlated with a higher intensity of psychological distress. Banjanin et al. (2015) tested the relationship between too much use of social networking and depression, yet found no statistically significant correlation between these two variables. Frison and Eggermont (2016) examined the relationships between different forms of Facebook use, perceived social support of social media, and male and female students' depressed mood. These researchers found a positive association between the passive use of the Facebook and depression and also between the active use of the social media and depression. Furthermore, the perceived social support of the social media was found to mediate this association. Besides, gender was found as the other factor to mediate this relationship.

Vernon et al. (2017) explored change in negative investment in social networking in relation to change in depression and externalizing behavior. These researchers found that increased investment in social media predicted higher depression in adolescent students, which was a function of the effect of higher levels of disrupted sleep. Barry et al. (2017) explored the associations between the use of social media by adolescents and their psychosocial adjustment. Social media activity showed to be positively and moderately associated with depression and anxiety. Another investigation was focused on secondary school students in China conducted by Li et al. (2017). The findings showed a mediating role of insomnia on the significant correlation between depression and addiction to social media. In the same year, Yan et al. (2017) aimed to explore the time spent on social networks and its correlation with anxiety among middle school students. They found a significant positive correlation between more than 2-h use of social networks and the intensity of anxiety.

Also in China, Wang et al. (2018) showed that addiction to social networking sites was correlated positively with depression, and this correlation was mediated by rumination. These researchers also found that this mediating effect was moderated by self-esteem. It means that the effect of addiction on depression was compounded by low self-esteem through rumination. In another work of research, Drouin et al. (2018) showed that though social media is expected to act as a form of social support for the majority of university students, it can adversely affect students' mental well-being, especially for those who already have high levels of anxiety and depression. In their research, the social media resources were found to be stress-inducing for half of the participants, all university students. The higher education population was also studied by Iwamoto and Chun (2020). These researchers investigated the emotional effects of social media in higher education and found that the socially supportive role of social media was overshadowed in the long run in university students' lives and, instead, fed into their perceived depression, anxiety, and stress.

Keles et al. (2020) provided a systematic review of the effect of social media on young and teenage students' depression, psychological distress, and anxiety. They found that depression acted as the most frequent affective variable measured. The most salient risk factors of psychological distress, anxiety, and depression based on the systematic review were activities such as repeated checking for messages, personal investment, the time spent on social media, and problematic or addictive use. Similarly, Mathewson (2020) investigated the effect of using social media on college students' mental health. The participants stated the experience of anxiety, depression, and suicidality (thoughts of suicide or attempts to suicide). The findings showed that the types and frequency of using social media and the students' perceived mental health were significantly correlated with each other.

2.3. Objectives of the Study

- To measure the relationship of using social media, depression, anxiety and stress
- To compare the level of using social media, depression, anxiety and stress with respect to gender

2.4. Significance of the study

Though social media, as the name suggests, is expected to keep people connected, probably this social connection is only superficial, and not adequately deep and meaningful to help individuals feel emotionally attached to others. The psychological effects of social media on student life need to be studied in more depth to see whether social media really acts as a social support for students and whether students can use social media to cope with negative emotions and develop positive feelings or not. In other words, knowledge of the potential effects of the growing use of social media on students' emotional well-being can bridge the gap between the alleged promises of social media and what it actually has to offer to students in terms of self-concept, self-respect, social role, and coping strategies (for stress, anxiety, etc.).

3. Research Methodology

3.1. Research Design

Correlational research design was used to conduct this quantitative study. Survey was administered as method of data collection. Convenient sampling technique was employed to select 200 university students as sample of study.

3.2. Instruments

After studying the previous literature of social networking usage it was found that several measurements had been developed to investigate the social networking usage. One instrument, developed by Pornsakulvanich, et.al (2013), explored six components as, friendship, passing time, relationship maintenance, in trend, entertainment and relaxation. This scale was used to assess a degree to which individuals graded their specific aims for using social networking sites.

3.3. Depression, Anxiety and Stress Scales (DASS-21)

The Depression, the Anxiety and Stress Scales (Lovibond, 1995) is used in the study to measure and assess the psychological burden in life of diabetic patients. It is a quantitative measure of distress with 3 axes stress, anxiety and depression and not used for clinical diagnoses as a categorical measure. DASS is useful for assessing the disturbance and lot of other complication. It has 21 items that indicates and describes the level of depression, the anxiety and stress and the responses on this scale are listed as; 0 score means, it is statement of response which is not applied for that person. 1- Responses which are given on 1 number denote the situation that is matched with person sometimes and at some extend. The responses on the situation 2 express the statement about the individual for a good time. Responses on this category have 3 numbers, which finds the condition that is related to close to the person. The normal score of the depression is ranged from (0-4), and as well as anxiety is separated from (0-3) and stress is moving the value from (0-7). The mild score of the depression of the people is start from the figure (5-6), while the anxiety is situated between these numbers (4-5) and the stress as well as is comes between this group (8-9). The moderate score of depression is ranging from (7-10), and the anxiety that is categorized between such type of values (6-7) and the stress values are ranged into this condition that is lies between these values (10-12). Severe and chronic level of the depression is categorized into these numbers (11-13), and the severe condition of anxiety lies between this group (8-9) and the stress is divided for it severity is ranged between such condition (13-16) while the extreme scores of the depression is indicated to this particularly is (14+), anxiety is related to this figure (10+) and the stress severe level is always indicates this category of score (17+). Scores of the individuals do not mean appropriate interventions.

4. Results

Table 1: Shows the relationship between Use of Social Media, Depression, Anxiety and Stress among University Students

	Mean	Std.Deviation	Use of Social Media	Depression	Anxiety	Stress
Use of Social Media	13.1201	21.56423	1	.713**	.698**	.728**
Depression	11.2392	34.98761		1	.819**	.739**
Anxiety	32.4543	8.23214			1	.852**
Stress	31.4356	6.35462				1

Table 2: Shows the mean score difference of Use of Social Media, Depression, Anxiety and Stress between Male and Female University Students

Variable	Gender	N	M	Std.Deviation	df	t-test	p-value
Use of Social Media	Male	100	36.6380	30.62388	198	9.261	.001
	Female	100	49.2778	36.07807			
Depression	Male	100	17.9848	11.30672	198	8.392	.001
	Female	100	21.5192	21.58506			
Anxiety	Male	100	18.2534	7.90986	198	5.809	.001
	Female	100	23.2635	8.45012			
Stress	Male	100	14.6793	11.37465	198	8.234	.001
	Female	100	19.6521	6.46575			

4.1. Discussion

The body of research on the effect of social media on students' affective and emotional states has led to mixed results. The existing literature shows that there are some positive and some negative affective impacts. Yet, it seems that the latter is pre-dominant. Mathewson (2020) attributed these divergent positive and negative effects to the different theoretical frameworks adopted in different studies and also the different contexts (different countries with whole different educational systems). According to Fredrickson's broaden-and-build theory of positive emotions (Fredrickson, 2001), the mental repertoires of learners can be built and

broadened by how they feel. For instance, some external stimuli might provoke negative emotions such as anxiety and depression in learners. Having experienced these negative emotions, students might repeatedly check their messages on social media or get addicted to them. As a result, their cognitive repertoire and mental capacity might become limited and they might lose their concentration during their learning process. On the other hand, it should be noted that by feeling positive, learners might take full advantage of the affordances of the social media and; thus, be able to follow their learning goals strategically. This point should be highlighted that the link between the use of social media and affective states is bi-directional. Therefore, strategic use of social media or its addictive use by students can direct them toward either positive experiences like enjoyment or negative ones such as anxiety and depression. Also, these mixed positive and negative effects are similar to the findings of several other relevant studies on general populations' psychological and emotional health. A number of studies (with general research populations not necessarily students) showed that social networks have facilitated the way of staying in touch with family and friends living far away as well as an increased social support (Zhang, 2017; Iqbal & Ali, 2024). Given the positive and negative emotional effects of social media, social media can either scaffold the emotional repertoire of students, which can develop positive emotions in learners, or induce negative provokers in them, based on which learners might feel negative emotions such as anxiety and depression. However, admittedly, social media has also generated a domain that encourages the act of comparing lives, and striving for approval; therefore, it establishes and internalizes unrealistic perceptions (Virden et al., 2014; Radovic et al., 2017; Khan & Wali, 2020). It should be mentioned that the susceptibility of affective variables to social media should be interpreted from a dynamic lens. This means that the ecology of the social media can make changes in the emotional experiences of learners. More specifically, students' affective variables might self-organize into different states under the influence of social media. As for the positive correlation found in many studies between the use of social media and such negative effects as anxiety, depression, and stress, it can be hypothesized that this correlation is induced by the continuous comparison the individual makes and the perception that others are doing better than him/her influenced by the posts that appear on social media. Using social media can play a major role in university students' psychological well-being than expected. Though most of these studies were correlational, and correlation is not the same as causation, as the studies show that the number of participants experiencing these negative emotions under the influence of social media is significantly high, more extensive research is highly suggested to explore causal effects (Mathewson, 2020; Saleem & Fatima, 2018). As the review of exemplary studies showed, some believed that social media increased comparisons that students made between themselves and others. This finding ratifies the relevance of the Interpretation Comparison Model (Stapel and Koomen, 2000; Stapel, 2007) and Festinger's (1954) Social Comparison Theory. Concerning the negative effects of social media on students' psychology, it can be argued that individuals may fail to understand that the content presented in social media is usually changed to only represent the attractive aspects of people's lives, showing an unrealistic image of things. We can add that this argument also supports the relevance of the Social Comparison Theory and the Interpretation Comparison Model (Stapel and Koomen, 2000; Stapel, 2007), because social media sets standards that students think they should compare themselves with. A constant observation of how other students or peers are showing their instances of achievement leads to higher self-evaluation (Stapel and Koomen, 2000). It is conjectured that the ubiquitous role of social media in student life establishes unrealistic expectations and promotes continuous comparison as also pinpointed in the Interpretation Comparison Model (Stapel and Koomen, 2000; Stapel, 2007).

5. Conclusion

Findings of the study reveal that use of social media is significant positive predictor of depression, anxiety and stress among university students. Moreover, female university students were found with greater level of using of social media, depression, anxiety and stress. These findings were discussed in relation to some more relevant theories such as the social comparison theory, which predicted that most of the potential issues with the young generation's excessive use of social media were induced by the unfair comparisons they made between their own lives and the unrealistic portrayal of others' on social media. Teachers, education policymakers, curriculum developers, and all those in charge of the student affairs at schools and universities should be made aware of the psychological effects of the pervasive use of social media on students, and the potential threats. It should be reminded that the alleged socially supportive and communicative promises of the prevalent use of social networking in student life might not be fully realized in practice. Students may lose self-appreciation and gratitude when they compare their current state of life with the snapshots of others' or peers'. A depressed or stressed-out mood can follow. Students at schools or universities need to learn self-worth to resist the adverse effects of the superficial support they receive from social media. Along this way, they should be assisted by the family and those in charge at schools or universities, most importantly the teachers. As already suggested, counseling programs might help with raising students' awareness of the potential psychological threats of social media to their health. Considering the ubiquity of social media in everybody' life including student life worldwide, it seems that more coping and compensatory strategies should be contrived to moderate the adverse psychological effects of the pervasive use of social media on students. Also, the affective influences of social media should not be generalized but they need to be interpreted from an ecological or contextual perspective. This means that learners might have different emotions at different times or different contexts while being involved in social media. More specifically, given the stative approach to learners' emotions, what learners emotionally experience in their application of social media can be bound to their intra-personal and interpersonal experiences. This means that the same learner at different time points might go through different emotions Also, learners' emotional states as a result of their engagement in social media cannot be necessarily generalized to all learners in a class.

References

- Aalbers, G., McNally, R. J., Heeren, A., De Wit, S., & Fried, E. I. (2019). Social media and depression symptoms: A network perspective. *Journal of Experimental Psychology: General*, 148(8), 1454.
- Abbott, J. (2013). Introduction: Assessing the social and political impact of the internet and new social media in Asia. *Journal of Contemporary Asia*, 43(4), 579-590.

- Alahmar, A. T. (2016). The impact of social media on the academic performance of second year medical students at College of Medicine, University of Babylon, Iraq. *J Med Allied Sci*, 6(2), 77.
- Charoensukmongkol, P. (2018). The impact of social media on social comparison and envy in teenagers: The moderating role of the parent comparing children and in-group competition among friends. *Journal of Child and Family Studies*, 27(1), 69-79.
- Chukwuere, J. E., & Chukwuere, P. C. (2017). The impact of social media on social lifestyle: A case study of university female students. *Gender and Behaviour*, 15(4), 9966-9981.
- Fleck, J., & Johnson-Migalski, L. (2015). The impact of social media on personal and professional lives: An Adlerian perspective. *The Journal of Individual Psychology*, 71(2), 135-142.
- Hassan, M. U. (2024). Motivational Strategies and Their Impact on Elementary Education in Punjab, Pakistan. *Journal of Policy Options*, 7(2), 11-19.
- Iqbal, M. Z., & Ali, M. Q. (2024). Improving Practicum Outcomes: Common Errors and Reflective Practices of Future Educators. *Journal of Policy Options*, 7(2), 20-28.
- Iwamoto, D., & Chun, H. (2020). The emotional impact of social media in higher education. *International Journal of Higher Education*, 9(2), 239-247.
- Keles, B., McCrae, N., & Grealish, A. (2020). A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents. *International journal of adolescence and youth*, 25(1), 79-93.
- Khan, W., & Wali, R. (2020). Assessing the Impact of a Comprehensive Capacity Building Program on Educational Leadership and Teaching Performance in Public and Private Sectors. *Journal of Business and Economic Options*, 3(3).
- Ley, B., Ogonowski, C., Hess, J., Reichling, T., Wan, L., & Wulf, V. (2014). Impacts of new technologies on media usage and social behaviour in domestic environments. *Behaviour & Information Technology*, 33(8), 815-828.
- O'Dea, B., & Campbell, A. (2011). Online social networking amongst teens: friend or foe? *Annual Review of Cybertherapy and Telemedicine 2011*, 133-138.
- Saleem, R., & Fatima, A. (2018). Enhancing Economic Development through Vocational Education: Insights from Pakistan. *Journal of Business and Economic Options*, 1(4), 106-112.
- Tang, F., Wang, X., & Norman, C. S. (2013). An investigation of the impact of media capabilities and extraversion on social presence and user satisfaction. *Behaviour & Information Technology*, 32(10), 1060-1073.
- Virden, A. L., Trujillo, A., & Predeger, E. (2014). Young adult females' perceptions of high-risk social media behaviors: A focus-group approach. *Journal of Community Health Nursing*, 31(3), 133-144.
- Wang, P., Wang, X., Wu, Y., Xie, X., Wang, X., Zhao, F., ... & Lei, L. (2018). Social networking sites addiction and adolescent depression: A moderated mediation model of rumination and self-esteem. *Personality and Individual Differences*, 127, 162-167.
- Weng, L., & Menczer, F. (2015). Topicality and impact in social media: diverse messages, focused messengers. *PLoS one*, 10(2), e0118410.
- Zareen, N., Karim, N., & Khan, U. A. (2016). Psycho Emotional Impact of Social Media Emojis. *Isra Medical Journal*, 8(4).
- Zhang, R. (2017). The stress-buffering effect of self-disclosure on Facebook: An examination of stressful life events, social support, and mental health among college students. *Computers in Human Behavior*, 75, 527-537.