



# Original Article Social Media Consumption and Psychological Health of Youth

Syeda Ammarah Bano <sup>1\*</sup>, Lubna Zaheer <sup>2</sup>

- <sup>1</sup> School of Communication Studies, University of the Punjab, <u>ammarahsabzwari64@gmail.com</u>
- <sup>2</sup> Department of Film and Broadcast, School of Communication Studies, University of the Punjab, <u>lubna.ics@pu.edu.pk</u>
   \* Correspondence: <u>ammarahsabzwari64@gmail.com</u>

Abstract: Social media has played an increasingly significant role in people's lives, especially among young people, who spend most of their time online exploring multiple social media platforms. As a result, social media is considered an effective tool for influencing the youth. Furthermore, social media is believed to have a significant impact on the mental and psychological well-being of youth. The purpose of the current research is to examine the effects of social media consumption on the psychological health of youth. In this regard, the relationship between social media consumption, socializing, and self-disclosure with anxiety and depression among youth has been examined, considering Facebook and Instagram. For data collection, an online survey was conducted. The study is conducted within the framework of uses and gratification. The findings of the study showed that social media consumption, socializing, and self-disclosure positively correlate with depression and anxiety. Also, it showed that social media usage influenced the depression and anxiety levels in youth, as the results revealed that depression and anxiety among them are increased with high social media consumption, as there is a directly proportional relationship between social media consumption and the two constructs of user gratification, i.e., socializing and self-disclosure, and depression and anxiety. So, the more youth consume social media, socialize through it, and self-disclose themselves, the more they develop depression and anxiety. Overall, the findings support the presumption that social media consumption and its user gratification, socializing, and self-disclosure influence mental health by causing depression and anxiety.

**Keywords:** Social media consumption; socializing; self-disclosure; psychological health; psychological well-being; depression; anxiety; mental health; youth.



Copyright: © 2024 by the authors. This article is an open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/

by/4.0/).

### 1. Introduction

Social media users reached 4.62 billion in January 2022, equaling 58.4% of the world's population worldwide. The average time spending on social media is 2 hours and 27 minutes. In 2022, the huge incorporation of social media in people's routine life is indicated by the increase of social media usage up to 4 trillion hours (Reichelt, 2019). Facebook comes at second with 19.6 hours average time spent per month while Instagram comes at fourth with 11.2 hours average time spent monthly by 14.8% and 14.5 of internet users, respectively. However, Facebook is still the most used social media platform with 2.91 billion users while Instagram is growing vividly with over 85 million users per 90 days (WeAreSocial, 2022). Mostly, these users belong to age 16 to 24 as it indicates the age of "emotional and psychosocial development" greatly influenced by social media. Every one out of four youngsters belonging to this age is using social media and at average 5% is getting addicted to it (Social Media and Young People's Mental Health and Wellbeing, 2017). With the evolution of world wide web, web 2.0 is growing into social networking platforms and two-way communication channels with adhesive technologies and diversified content to make it "people-centric or participative web" (Cormode and Krishnamurthy, 2008). These platforms or applications ensure the social presence of users influenced by "immediacy (asynchronous: through email/synchronous: through live chat)" (Kaplan and Haenlein, 2010). Out of all the forms of social media, social networking sites (SNSs) have millions of users who have personal accounts, who interact with other users to ensure social connections, post their personal content such as pictures, videos, and also, they like and comment on others' posts (Ellison et al., 2011). Social media has certain advantages as creation of creative expression, collaboration, "exploration of identity", and facilitation of online networking (Russo, 2008) while its excessive usage has some mental health issues, disordered eating, body dissatisfaction, loss of sleep (Tripathi and Ahad, 2019) and also depression (Lin et al., 2016). Nevertheless, the social media usage depends upon the needs and motivations of users, thus, its implications vary (Brandtzæg, 2012). The social media usage patterns of users show their communication capabilities and motivations (Go and You, 2016). Users' psychological and sociological factors develop their certain personal needs so to fulfill needs they seek out certain gratifications (maintaining social connection, freedom of speech, and information

exchange) which depends on media choice (Orchard et al., 2014) and such as entertainment and communication especially related to Facebook (Krause, 2014). Park et al. (2009) have investigated the uses and gratifications of social media networking platforms, especially Facebook by explaining the concepts of socializing and self-disclosure as communication and interaction with others through social media platforms and "self-status seeking" through social media, respectively (Park et al., 2009) indicating the motivations to use social media more than emotional association (Davila et al., 2012). However, these gratifications can have an impact on the psychological health of young social media users. In the contemporary era, it is highly necessary to understand and analyze this significant phenomenon i.e., the impact of social media use on youth's mental health along with its associated gratifications as this research finds its ground in this phenomenon. Therefore, this research investigates the relationship between social media consumption and depression and anxiety among youth. Further, the study also examines the users' social media consumption to anxiety and depression among youth.

#### 2. Literature Review

Reports say, 68% of Americans belonging to age 18 to 24 use Facebook while 71% of the same age use Instagram. However, the calculated attitude conflict towards social media (Facebook and Instagram) says: Hard to give up on social media (12%), Not hard to give up on social media (59%), In total denial of this possibility (29%) (Smith & Anderson, 2019). Therefore, the domains like body image, eating habits, security, creation of valuable customers, "social networking and internet addiction", and social networking and health has gained the attention of researchers as they directly tell the influence of social media on human lives (Tripathi & Ahad, 2019). Most youngsters use social media for entertainment, to do creative activities, and to build social connections but they receive negativity in return in the form of social comparisons, cyberbullying, and repentance over real life. It is because online self-expression done to an extreme level causes the risk of gaining negative attention and this results in more stress and depression (Radovic et al., 2017). Over-sharing on social media promotes narcissistic admiration and rivalry concept (NARC) in terms of social potency and social conflict. When users feel their ego is getting boost by positive social interactions, they get to social media more to promote themselves. Negative social interactions cause a threat to their ego and they develop an attitude of defending themselves so they develop self-protection strategies (Back et al., 2013). Also, when youngsters watch negative online content, posts and pictures of "non-suicidal self-injury (NSSI)", they get triggered by them because they remind them of their worst memories, eventually cause them to suffer with low mood and depression (Radovic et al., 2017). The study suggested that excessive use of social media makes youngsters highly prone to mental distress as they experience depression and idealization of suicide (Sampasa-Kanyinga and Lewis, 2015). Facebook is highly influential in creating psychological distress (Hong et al., 2014). In support of this, Ybarra et al. (2005) observed that youngsters showing the symptoms of depression are mostly engage in the online instant messaging with strangers (Ybarra et al., 2005). In contrary, there is no causal evidence of negative effects of social media on psychological well-being. Rather there are some positive effects which are proven through researches such as increased awareness about the world, self-confidence, and skills development (Tripathi and Ahad, 2019). De la Peña and Quintanilla (2015) found that social media engagement through different platforms such as Facebook, Instagram, Snapchat, Twitter, and Tumblr etc. have engaged their users to develop good social interactions all over the world which help them alleviate their anxiety and depression. According to American Academy of Pediatrics (AAP), "Facebook depression" is defined as depression caused by social media sites such as Facebook among youngsters and teenagers when they spend a lot of time on them. The AAP have given warning that online interactions can cause social isolation in real life which develops the symptoms of depression (Baker and Algorta, 2016). Facebook enables self-disclosure through the profile which indicates various aspects of oneself such as their friends' network, their culture, and their political affiliations etc. so it is designed to provide the relationship supporting tasks such as identity information, sharing information with those of your interests and preferences through groups etc., and two-way communication (Ellison et al., 2011). It was observed that users perceive Facebook friends and real-life friends as different entities and Facebook friends are sometimes become a social capital for them more than real life friends. Most of the interactions on Facebook give the evidence of increased bridging social capital. Also, it seems that social capital is highly beneficial to achieve the personal goals and spending a productive life (Phua at al., 2017). It has also been observed for males that the rate of loneliness and anxiety among male SNSs users corresponds to heavy usage of SNSs. On the other hand, females can maintain balance in their online and offline connections and they are skillful in maintaining online social bonds. Females are heavy users of SNSs; therefore, they feel left out socially outside the SNSs and it impacts them more as compared to males. In spite of increasing online and offline interactions, heavy SNS users are more

prone to loneliness than nonusers (Brandtzæg, 2012). In support of this, Ybarra observed that youth showing symptoms of depression are more engage in online communication instead of face-to-face communication. Both genders are showing significant symptoms of depression as they talk to strangers online, though males are twice as prone to this act as females. It has also been observed that youth suffering from anxiety and depression are seeking interactions online not only with known people but also with unknown people to whom they are connected only online. They believe that online interactions are more convenient as they demand less effort (Ybarra et al., 2005). New connections are the strong predictor behind the motivations of using SNSs. In addition, freedom of expression is also a motivation behind using SNSs as it is a fascinating ability of social networking sites where one can communicate beyond the social norms anonymously. Also, enjoyment is another predictive motivation of using social media which is quite relative because it is self-explanatory (Orchard et al., 2014).

#### 2.1. Theoretical Framework

The field of research such as social media and mental health including social relationships has opened the ways to link uses and gratifications theory to such areas too. In order to study the motivations behind the use of social media among youth and its relation to psychological well-being, the uses and gratification theory coined by Katz and Blumler in early 1940s is being employed in this research. Uses and gratification theory is justifiably used as a root in development of measurement tools and scales to give clear indications of with what intentions users use social media and also to explore the uptake of media. There are two key assumptions of this theory which are: a) while selecting a type of media, audiences have a certain goal orientation, and b) active interpretation and integration of media messages in their routine lives enables them to achieve the most desirable gratifications (Rubin and Feeney, 1986). This theory comes with a user-centered approach which deals with understanding why people use certain type of media, why they need to use it and what gratifications they get from it. Also, it believes that every person has its own reasons to use media. Likewise, youth use social media to fulfill their own personal or perceived needs so youth as a consumer is free to decide how they will use social media and how it will affect them. The stimulus users get from social media influences their psychological well-being and mood (Lin et al., 2016). Therefore, this study aims at analyzing the constructs of uses and gratifications such as self-disclosure and socializing given by Reichelt (2019) and effects of these two constructs on the psychological health of youth along with social media consumption. The analysis includes the relationship between social media consumption and online socializing and self-disclosure and two dependent variables depression and anxiety among youth.

### 2.2. Research Hypothesis

H1: Social media consumption positively correlates with depression and anxiety.

H2a: Socializing on social media positively correlates with depression.

H2b: Socializing on social media positively correlates with anxiety.

H3: Self-disclosure on social media positively correlates with anxiety and depression.

H4a: Social media consumption significantly impacts in causing depression.

H4b: Social media consumption significantly impacts in causing anxiety.

H5a: Socializing through social media influences in causing depression.

H5b: Socializing through social media influences in causing anxiety.

H6a: Self-disclosure on social media influences in causing depression.

H6b: Self-disclosure on social media influences in causing anxiety

#### 3. Materials and Methods

This research utilizes the quantitative design with survey method to understand the relationship between social media consumption among youth along with certain user gratifications such as socializing and self-disclosure and the prevalence of anxiety and depression among them. In order to analyze the research objectives and research questions of this study, an online survey is conducted by adopting socializing and self-disclosure constructs given by Park et al. (2009), having 5-items and 3-items, respectively. Moreover, Social Media Engagement Scale for Adolescents (SMES-A) with 11-items is employed to measure the construct social media consumption as it is a reliable measurement for evaluation of social media engagement or consumption among youth Ni et al. (2020). In order to measure depression and anxiety, Patient Health Questionnaire (PHQ) of 9-items and Generalized Anxiety Disorder (GAD) of 7-items scale is employed, respectively. The data from 200 active users of Facebook and Instagram was collected with the help of online survey form created on Google forms. Data collection was based on random convenience sampling. In total, 222 respondents became a part this study and 200 were selected by excluding the incomplete and did not fit for the requirements of the study responses, among them 80 (39.8%) were male and 120 (59.7%) were female. Respondents belonged to three age groups ranging from 16-24 years. The respondents were comprised of committed: married, engaged, and bonded, and uncommitted:

unmarried, not engaged or bonded individuals. Also, respondents came from lower and higher socioeconomic statuses. The additional criteria for this sample focused on targeting the educated youth of the society who can understand intermediate level of English, context of the research, and the terminologies used in the questionnaire related to the constructs to assure the reliability of the current study. The data analysis was performed on IBM SPSS Statistics Version 22 using Pearson Correlation test and Linear Regression test.

Demographics	Group	Frequency (f)	Percentage (%)
Age	16-18	52	25.9
	19-21	67	33.3
	22-24	81	40.3
Gender	Male	80	39.8
	Female	120	59.7
<b>Relationship Status</b>	Committed	48	23.9
	Uncommitted	152	75.6
Education	Matric/O levels	29	14.5
	(10 years)		
	Intermediate/ A levels	30	15.0
	(12 years)		
	Bachelors	94	47.0
	(16 years)		
	Masters	47	23.5
	(18 years)		
Family Income Status	<50,000 PKR	50	24.9
-	<100,000 PKR	49	24.4
	<150,000 PKR	27	13.4
	<200,000 PKR	33	16.4
	>200,000 PKR	41	20.4

Table 1: Socio-demographic characteristics of the respondents

# 4. Results

The empirical findings of this research showed that there was a positive correlation between social media consumption and depression and anxiety. It was found that, in case of social media consumption and depression, the P value was <.001 which is highly significant. Then again, the relationship of social media consumption and anxiety provided that P value of <.001 which indicates the highly significant relationship.

Table 2: Pearson Correlation test for Social Media Consumption and Depression and Anxiety

		Social Media Consump-	Depression	Anxiety
		tion		
Social Media	Pearson Correlation (r)	1	0.389**	$0.258^{**}$
Consumption	Sig. (2-tailed)		<.001	<.001
-	N	200		

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

Furthermore, the Pearson correlation between socializing and depression was found highly significant having P value of <.001 while socializing and anxiety showed insignificant relationship having P value 0.460.

Table 3: Pearson Correlation test for Socializing and Depression and Anxiety

		Socializing	Depression	Anxiety
Socializing	Pearson Correlation (r)	1	$0.278^{**}$	0.053
	Sig. (2-tailed)		<.001	0.460

<u>N</u> 200

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

Similarly, the relationship of self-disclosure and depression and anxiety was also found through Pearson Correlation. It is the most interesting findings of this research as it is unimaginative that through expressing oneself online, one can get psychological health problems. But, in both of these cases, P value was <.001 which shows highly significant relationship.

Table 4: Pearson Correlation test for Self-disclosure and Depression and Anxiety

		Self-disclosure	Depression	Anxiety
Self-disclosure	Pearson Correlation (r)	1	0.344**	0.304**
	Sig. (2-tailed)		<.001	<.001
	N	200		

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

In addition, these variables were also analyzed through linear regression for prediction of true effects. To determine whether social media consumption impacts in causing depression among youth, linear regression was conducted and P value was found .000 which is less than 0.001 and shows high significance. The R2 value explains 15.1% variance in social media causing depression among youth.

Table 5. Linear	Regression t	est for Social	Media Consum	ption and Depression
Table J. Linear	Regression o	cst for Social	Micula Collisuin	phon and Depression

Hypotheses	Regression Weights	Beta Coefficient	R <sup>2</sup>	F	p-value	Hypotheses Supported
H4a	SMC → SMCD	.269	.151	35.204	.000	Yes

Similarly, social media consumption also predicts anxiety among youth with P value .000 which is less than 0.001 indicates highly significant impact. The R2 value explains 6.7% variance in social media causing anxiety among youth.

Table 6: Linear Regressio	n test for Social Media	Consumption and Anxiety

Hypotheses	Regression Weights	Beta Coeffi- cient	R <sup>2</sup>	F	p-value	Hypotheses Supported
H4b	SMC → SMCA	.174	.067	14.169	.000	Yes

Furthermore, socializing through social media carried a significant impact in causing depression among youth with P value .000 showing socializing predicts depression. 7.8% variance in social media causing depression among youth was explained by R2 value.

Table 7: Linear Regression test for Socializing and Depression

Hypotheses	Regression Weights	Beta Coeffi- cient	<b>R</b> <sup>2</sup>	F	p-value	Hypotheses Supported
H5a	STSM	.472	.078	16.636	.000	Yes
	>					
	SMCD					

In contrast to this, through linear regression, it was found that socializing did not significantly predict anxiety with P value .460 which indicates that socializing through social media cannot play a significant role in causing anxiety. 0.3% variance in social media causing depression among youth was explained by R<sup>2</sup> value.

Table 8: Linear Regression test for Socializing and Anxiety

Hypotheses	Regression	Beta Coeffi-	R <sup>2</sup>	F	p-value	Hypotheses
	Weights	cient				Supported

H5b	STSM	.087	.003	.548	.460	No
	>					
	SMCA					

Self-disclosure on social media carried a significant effect in causing depression as it predicts depression among youth with P value < 0.001. The R<sup>2</sup> value explains 11.8% variance in social media causing depression.

Hypotheses	Regression Weights	Beta Coeffi- cient	R <sup>2</sup>	F	p-value	Hypotheses Supported
H6a	SDSM	.690	.118	26.576	.000	Yes
	->					
	SMCD					

Table 9: Linear Regression test for Self-disclosure and Depression

Similarly, self-disclosure also predicts anxiety among youth having P value < 0.001 which is highly significant. The R<sup>2</sup> value explains 9.2% variance in social media causing depression.

Hypotheses	Regression Weights	Beta Coeffi- cient	<b>R</b> <sup>2</sup>	F	p-value	Hypotheses Supported
H6b	SDSM	.594	.092	20.148	.000	Yes
	SMCA					

# 5. Discussion

The results of this study revealed that there is a positive correlation between social media consumption and the two constructs (socializing and self-disclosure) and depression and anxiety. This shows a systematic outlook of the variables in a way that consumption of social media and socializing and self-disclosure on social media platforms i.e., Facebook and Instagram increase depression and anxiety among youth with establishing a directly proportional relationship. Youth that consume Facebook and Instagram well enough get depression and anxiety from it. The more they consume these social networking sites, the more they get depression and anxiety. Hence, the assumption is valid as the expectation that social media consumption positively correlates with depression and anxiety is fulfilled. As Sampasa-Kanyinga and Lewis (2015) observed in their study that youngsters who frequently use social media have seen highly prone to mental distress and they experience depression, idealization of suicide, and certain unfulfilled mental needs more than other youngsters who does not use social networking sites (Sampasa-Kanyinga and Lewis, 2015). Further analysis of Facebook and Instagram showed positive correlation of socializing with depression on these two social media platforms indicates young participants who use Facebook and Instagram for socializing have more depression. In support of this, Ybarra et al. (2005) observed that youngsters who show the symptoms of depression are more likely to engage in the online instant messaging with strangers on social networking sites. Baker and Algorta (2016) have directly supported the social media causing depression by mentioning a report from American Academy of Pediatrics (AAP) which gives warning that online interactions can cause social isolation in real life which develops the symptoms of depression. But there was no significant correlation found between socializing and anxiety which has rejected the assumption made for this research that says socializing also positively correlates with anxiety. In contrast to this, self-disclosure on social media i.e., on Facebook and Instagram shown positive correlation with depression and anxiety and thus proved the hypotheses assumed for this research. It shows that young participants who are active users of Facebook and Instagram and do self-expression on these social networking sites excessively get depression and anxiety. The more they express themselves freely on Facebook and Instagram, the more they get depression and anxiety in return and it ultimately negatively effects their mental health. The research has shown that Facebook is highly influential in creating psychological distress (Hong et al., 2014). In general, the present study suspects that while using social media, the excessive use of it, socializing through it, and self-disclosure on it have negative effect on the psychological health of youth. The basis of this decision is on researches done previously which suggest that the quality of network experience and the usage type of social media are the key elements to give the prediction of outcomes of mental health rather than amount of time spent and

the usage frequency (Davila et al., 2012; Baker and Algorta, 2016). Contrary to this, the literature suggests that maybe the cause of depression in youth is something else as depression and anxiety are complex illnesses, there can be other leading and contributing factors in causing negative outcomes of mental health but it can get worst by using social media and seeking connections online as Radovic et al. (2017) mentioned in his study that youngsters who feel depressed already use social media to express emotions, to gain attention from online community, and to gain social support. Sometimes social media works as an escape but other times, it makes their mood worst and they get even more depressed than before (Radovic et al., 2017). While comparing to other studies, this studies also approves the relationship of social media consumption with depression and anxiety thus showing there is some effect of using social media on psychological well-being of youth. But this research addresses the gap by not including how much social media consumption effects the mental health. Moreover, this research contributes to the existing literature due to several reasons: it connects consumption of social media and two user gratifications of social media i.e., to mental health in context of two social media platforms., the theoretical framework of this study explains the user behavior of youth and what they get from social media, and this research provides the society and academics with significant knowledge about the latest phenomenon related to social media.

#### 6. Conclusions

In this research, youth was analyzed about their consumption, their socializing and self-disclosure on social media by taking Facebook and Instagram into consideration to understand the effects of social media on psychological health of youth. The findings support the general presumptions that social media consumption and its user gratifications socializing and self-disclosure effects the mental health by causing depression and anxiety on their separate grounds. Socializing and self-disclosure have higher social component regarding Facebook and Instagram and they both show positive score with depression and anxiety. Overall, several research hypotheses of this research were met, indicating that youth belonging to age 16-24 consuming social media excessively, are prone to have the symptoms of depression and anxiety. There is a directly proportional relationship of social media consumption with depression and anxiety. Likewise, this relationship is also true for the two constructs of user gratifications i.e., socializing and self-disclosure. So, the more youth consume social media, socialize through it, and self-disclose themselves, the more they develop depression and anxiety. Based on the findings of this research and the literature evidence, there is a significant correlation between usage of social media and psychological health disorders among youth. With regard to that, this research encourages critical thinking and motivates to ask about the impact of new media, in particular this communication tool called social media.

Author Contributions: "Conceptualization, Syeda Ammarah Bano; methodology, Syeda Ammarah Bano; software, Syeda Ammarah Bano; validation, Syeda Ammarah Bano, Lubna Zaheer; and Syeda Ammarah Bano; investigation, Syeda Ammarah Bano; resources, Syeda Ammarah Bano, Lubna Zaheer; data curation, Syeda Ammarah Bano; writing—original draft preparation, Syeda Ammarah Bano; writing—review and editing, Syeda Ammarah Bano, Lubna Zaheer; visualization, Lubna Zaheer; supervision, Syeda Ammarah Bano; project administration. All authors have read and agreed to the published version of the manuscript."

Funding: This research received no external funding.

**Institutional Review Board Statement:** The study was conducted according to the guidelines of the supervisor approved by the Ethics Committee of DEPARTMENT OF FILM AND BROADCASTING, SCHOOL OF COMMUNICATION STUDIES, UNIVRSITY OF THE PUNJAB, LAHORE (Ref. no. D/505/DFB, DOA: 31/08/2023).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Conflicts of Interest: The authors declare no conflict of interest.

## References

- Back, M. D., Küfner, A. C., Dufner, M., Gerlach, T. M., Rauthmann, J. F., & Denissen, J. J. (2013). Narcissistic admiration and rivalry: disentangling the bright and dark sides of narcissism. Journal of personality and social psychology, 105(6), 1013.
- Baker David, A. Perez, A. G. (2016). The Relationship between Online Social Networking and Depression: A Systematic Review of Quantitative Studies [Электронный ресурс]. Cyberpsychology, Behavior, and Social Networking, 19(11), 638-648.
- Brandtzæg, P. B. (2012). Social networking sites: Their users and social implications—A longitudinal study. Journal of Computer-Mediated Communication, 17(4), 467-488.
- Cormode, G., & Krishnamurthy, B. (2008). Key differences between Web 1.0 and Web 2.0. First Monday.
- Davila, J., Hershenberg, R., Feinstein, B. A., Gorman, K., Bhatia, V., & Starr, L. R. (2012). Frequency and quality of social networking among young adults: Associations with depressive symptoms, rumination, and corumination. Psychology of popular media culture, 1(2), 72.

- Digital 2022: Another Year of Bumper Growth. (2022, January 26). Retrieved from https://wearesocial.com/us/blog/2022/01/digital-2022-another-year-of-bumper-growth-2/
- De la Peña, A., & Quintanilla, C. (2015). Share, like and achieve: the power of Facebook to reach health-related goals. International Journal of Consumer Studies, 39(5), 495-505.
- Ellison, N. B., Steinfield, C., & Lampe, C. (2011). Connection Strategies: Social Capital Implications of Facebook-enabled Communication Practices. New Media & Society, 13(6), 873-892.
- Go, E., & You, K. H. (2016). But not all social media are the same: Analyzing organizations' social media usage patterns. Telematics and Informatics, 33(1), 176-186.
- Hong, F. Y., Huang, D. H., Lin, H. Y., & Chiu, S. L. (2014). Analysis of the psychological traits, Facebook usage, and Facebook addiction model of Taiwanese university students. Telematics and Informatics, 31(4), 597-606.
- Hunt, D., Atkin, D., & Krishnan, A. (2012). The influence of computer-mediated communication apprehension on motives for Facebook use. Journal of Broadcasting & Electronic Media, 56(2), 187-202.
- Huang, Y. T., & Su, S. F. (2018). Motives for Instagram use and topics of interest among young adults. Future internet, 10(8), 77.
- Kaplan, A., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. Business Horizons, 53(1), 59-68.
  Krause, A. E., North, A. C., & Heritage, B. (2014). The uses and gratifications of using Facebook music listening applications. Computers in Human Behavior, 39, 71-77.
- Lin, L. Y., Sidani, J. E., Shensa, A., Radovic, A., Miller, E., Colditz, J. B., ... & Primack, B. A. (2016). Association between social media use and depression among US young adults. Depression and anxiety, 33(4), 323-331.
- Ni, M. Y., Yang, L., Leung, C. M., Li, N., Yao, X. I., Wang, Y., ... & Liao, Q. (2020). Mental health, risk factors, and social media use during the COVID-19 epidemic and cordon sanitaire among the community and health professionals in Wuhan, China: cross-sectional survey. JMIR mental health, 7(5), e19009.
- Orchard, L. J., Fullwood, C., Galbraith, N., & Morris, N. (2014). Individual differences as predictors of social networking. Journal of Computer-Mediated Communication, 19(3), 388-402.
- Park, N., Kee, K. F., & Valenzuela, S. (2009). Being immersed in social networking environment: Facebook groups, uses and gratifications, and social outcomes. Cyberpsychology & behavior, 12(6), 729-733.
- Phua, J., Jin, S. V., & Kim, J. J. (2017). Uses and gratifications of social networking sites for bridging and bonding social capital: A comparison of Facebook, Twitter, Instagram, and Snapchat. Computers in human behavior, 72, 115-122.
- Quan-Haase, A., & Young, A. L. (2010). Uses and gratifications of social media: A comparison of Facebook and instant messaging. Bulletin of science, technology & society, 30(5), 350-361.
- Radovic, A., Gmelin, T., Stein, B. D., & Miller, E. (2017). Depressed adolescents' positive and negative use of social media. Journal of adolescence, 55, 5-15.
- Reichelt, A. (2019). Social media and mental health: Uses and gratifications of social networking in relation to depression, anxiety and offline relationships among young adults (Bachelor's thesis, University of Twente).
- Royal Society For Mental Health (2017). #StatusOfMind: Social media and young people'smental health and wellbeing. Retrieved from: https://www.rsph.org.uk/static/uploaded/d125b27c-0b62-41c5-a2c0155a8887cd01.pdf
- Russo, A., Watkins, J., Kelly, L., & Chan, S. (2008). Participatory communication with social media. Curator: The Museum Journal, 51(1), 21-31.
  Rubin, D. C., & Feeney, C. (1986). A Multicomponent Stress Management Program for College Students. Journal of Counseling & Development, 64(8), 531-531.
- Sampasa-Kanyinga, H., & Lewis, R. F. (2015). Frequent Use of Social Networking Sites Is Associated with Poor Psychological Functioning Among Children and Adolescents. Cyberpsychology, Behavior, and Social Networking, 18(7), 380-385.
- Smith, A., Anderson, M., Smith, A., & Anderson, M. (2019, April 17). Social Media Use 2018: Demographics and Statistics. Retrieved from https://www.pewinternet.org/2018/03/01/social-media-use-in-2018/
- Tripathi, G., & Ahad, M. A. (2019). Effects of social media on social, mental, and physical health traits of youngsters. In Computational Intelligence in Data Mining (pp. 685-695). Springer, Singapore.
- Ybarra, M. L., Alexander, C., & Mitchell, K. J. (2005). Depressive symptomatology, youth Internet use, and online interactions: A national survey. Journal of adolescent health, 36(1), 9-18.