

Social Media Addiction and Aggression in Pakistani Young Adults: Social Connectedness as a ModeratorMuhammad Sajjad Shahid^{1*}, Sobia Bashir¹, Sukaina Fatima²**Abstract**

Social media serves as a platform for communication and connection in the digital realm, but its problematic use can negatively affect health. Research indicates a link between problematic social media use and increased aggression. This study explores the moderating role of social connectedness in the relationship between social media addiction and aggression among young adults in Pakistan, involving 162 participants (82 men, 77 women) aged 18 to 25 years ($M=22.09$, $SD=2.06$). Using instruments like the Bergen Social Media Addiction Scale (Andreassen et al., 2017), the Revised Social Connectedness Scale (Lee et al., 2001), and the Buss and Perry Aggression Questionnaire (Buss & Perry, 1992), the analysis revealed a positive but nonsignificant relationship between social media addiction, social connectedness, and aggression. However, using Hayes' 4.1 Model 1, findings showed a significant negative effect of social media addiction on aggression ($\beta=-5.65^*$, $SE=2.75$, $p<.05$) and a significant negative impact of social connectedness on aggression ($\beta=-2.16^*$, $SE=1.08$, $p<.05$). The interaction between social media addiction and social connectedness also had a positive and significant effect on aggression ($\beta=.09^*$, $SE=.04$, $p<.05$), suggesting that social connectedness moderates the impact of social media addiction on aggression in young Pakistani adults. Additionally, independent sample *t*-tests indicated that social media addiction ($M=25.95$, $SD=3.35$, $**p<.01$) and aggression ($M=84.32$, $SD=19.49$, $***p<.001$) were significantly higher in men than in women, with no significant differences in social connectedness. The study concludes with a discussion of its limitations, recommendations, and implications for societal welfare.

Keywords: Aggression, Pakistani Young Adults, Social Connectedness, Social Media Addiction

Received: 16 August 2024; Revised Received: 20 September 2024; Accepted: 22 September 2024

¹Alumni, Department of Psychology, Lahore Garrison University, Lahore, Pakistan.

²Visiting Faculty, Institute of Professional Psychology, Bahria University, Karachi, Pakistan.

***Corresponding Author Email:**

sajjadkhansajjad565@gmail.com

Introduction

Social media serves as a platform facilitating the exchange of ideas, information, interests, and expressions through virtual connections (Obar & Wildman, 2015). It offers numerous benefits in education, business, and

international relations (Jiang et al., 2023). However, social media addiction occurs when its excessive use impairs various aspects of functioning, including occupational, practical, educational, and social dimensions (Tarafdar et al., 2020). This addiction spans various platforms such as Facebook, YouTube, Instagram, Twitter, WhatsApp, and others, and can lead to maladaptive behaviour in emotional and social aspects (Shi et al., 2020; Xie et al., 2019; Turel & Serenko, 2012).

Aggression is characterized by feelings of antipathy or anger that manifest in violent or hostile behavior towards property, animals, or individuals. It encompasses intentions to harm individuals who do not wish to be harmed. Aggression, as a broad concept, includes verbal aggression (e.g., yelling, using abusive

This article is distributed under the terms of the Creative Commons Attribution Non Commercial 4.0 International License (<https://www.creativecommons.org/licenses/by-nc/4.0/>) which permits non-Commercial use, reproduction and distribution of the work without further permission provided the original work is attributed as specified.

© Copyright: The Authors (2024)

language), physical aggression (e.g., hitting, kicking), hostility (unfriendly attitudes), and anger (exaggerated displeasure in response to injury, injustice, or insult) (Buss & Perry, 1992; Infante, 1995; McCauley, 2017).

Social connectedness refers to the sense of belonging and subjective psychological linkage that individuals experience towards others and groups (Cheung et al., 2022). It stands in contrast to isolation and involves subjective evaluations of one's involvement in deep, intimate relationships with others, including individuals, groups, and society. Operational definitions of social connectedness include concern for others, experiencing care from others, and a sense of community or group membership (Hannah et al., 2017).

Social media addiction is escalating, particularly among young people and Pakistani young adults. Research underscores that excessive use of social media, often linked with smartphone usage, increases the risk of addiction (Nikou et al., 2014). Studies conducted at the University of Pennsylvania indicate that limiting daily social media use to 30 minutes reduces feelings of loneliness and enhances social connectedness (Hunt et al., 2023). During the pandemic, older adults reported lower levels of loneliness compared to Pakistani young adults, potentially due to excessive social media exposure among the latter (Lisitsa et al., 2020). Research also reveals a positive association between aggressive behavior and digital gaming addiction, with slightly higher mean values observed among men compared to women (Alexiou & Paraskeva, 2018). Social connectedness has been revealed according to previous study as a stronger manipulative variable on aggression in Pakistani young adults (Holmgren et al., 2017).

Despite transformations in societal norms and cultures over time, violence and aggression have remained persistent phenomena (Ersoy et al., 2012). Social media platforms contribute to an aggressive culture by exposing individuals to aggressive and violent content,

which can influence aggressive behaviors, particularly among students (Unachukwu et al., 2019). Numerous studies demonstrate that since the early 2000s, digital media—such as texting, gaming, and social media—have supplanted traditional media forms like magazines, newspapers, and television (Twenge et al., 2019). Social media addiction is strongly related to increase aggressive behaviors (Lin et al., 2023). Furthermore, research indicates that social support works as a moderator between problematic use of social media and aggressive tendencies, highlighting the crucial role of supportive social networks in promoting healthier behaviors among Pakistani young adults (Gentile et al., 2012; Lee & Loke, 2018).

Studies from Asian nations, including South Korea and China, reveal a significant and pronounced correlation between problematic social media use and heightened aggression (Chen & Liu, 2021). Additionally, research from South Korea suggests that while social media addiction significantly influences aggression, social support acts as a buffer or moderator between these variables (Lee et al., 2022). Research from China has shown that social media addiction significantly influences aggression, with the effect being moderated by the level of social connectedness (Yang & Wang, 2023).

From the literature, it is evident that social media addiction is strongly associated with aggression. However, there is limited research specifically exploring the moderating role of social connectedness in Asia, particularly in Pakistan. Therefore, this study aims to explore social connectedness as moderator between independent variable social media addiction and dependent variable aggression in Pakistani young adults.

Objectives

Followings are objectives of the study.

1. To explore the relationship between social media addiction, social connectedness, and aggression among young adults in Pakistan.
2. To examine the moderating role of social connectedness in the relationship between

social media addiction and aggression in Pakistani young adults.

3. To investigate gender differences in social media addiction, social connectedness, and aggression among young adults in Pakistan.

Hypotheses

H1: Correlation is expected between social media addiction, social connectedness, and aggression in Pakistani young adults.

H2: Social connectedness is expected to moderate the relationship between social media addiction and aggression in Pakistani young adults.

H3: Significant gender differences are expected in social media addiction, social connectedness, and aggression among Pakistani young adults.

Method

Research Design

Correlational research design was employed for this study.

Sample Selection

Data for this study were collected using a purposive sampling approach. The sample comprised 162 participants, including both employed and unemployed individuals, as well as college and university students, 18-25 was chosen as age range criteria. Participants completed a demographic questionnaire, the Bergen Social Media Addiction Scale, the revised Social Connectedness Scale, and the Buss-Perry Aggression Questionnaire.

Inclusion and Exclusion Criteria

Pakistani citizens between the ages of 18 to 25 comprising smartphone with social media were included in this study.

Measures

Demographic Questionnaire

This questionnaire assessed participants' demographic characteristics, including gender, age, education, and employment status.

Bergen Social Media Addiction Scale (BSMAS)

BSMAS was developed by Andreassen et al. (2017), this scale consists of six items rated on a scale from 1 (very rarely) to 5 (very often). The original scale reliability is .88. In this study, its reliability was found to be .69.

Social Connectedness Scale Revised (SCS-R)

SCS-R was developed by Lee et al. (2001), comprising 20-items. Responses range from 1 (strongly disagree) to 6 (strongly agree). The original scale reported reliability of .92. In this study, the reliability of the revised scale is .72.

Buss and Perry Aggression Questionnaire (BPAQ)

This questionnaire was developed by Buss and Perry (1992), comprising 29 items rated on a scale from 1 (extremely uncharacteristic) to 5 (extremely characteristic). The total reliability of the BPAQ is .89, congruent to the reliability found in the current study.

Procedure

The study was conducted following the ethical guidelines established by the APA. Before data collection, permissions were obtained from the authors of the scales used. A demographic form was administered to gather essential participant information, including gender, age, education, and employment status of young adults in Pakistan. Institutional permissions for data collection were secured, and participants were thoroughly briefed on the study's objectives to minimize bias. Informed consent was obtained from all participants, ensuring their anonymity and confidentiality. They were also informed of their right to withdraw from the study at any time. Only participants who met the inclusion criteria and provided informed consent were included in the study. The survey took approximately 15 minutes to complete, and participants were thanked for their involvement at the end of the data collection process. Ethical standards were meticulously upheld throughout the study in accordance with APA's 7th edition ethical code of conduct.

Ethical Considerations

Researchers following the APA ethical code of conduct ensured that no physical or psychological harm was inflicted on participants. Privacy was strictly maintained, with explicit permission obtained before participants completed the questionnaire,

ensuring there was no coercion, either verbal or physical. Additionally, measures were

implemented to uphold the integrity of the data collected, protecting against any falsification.

Results

Table 1

Socio-demographic Characteristics of Participants (N= 162)

Sample Characteristics	F	%	M	SD
Gender				
Men	85	52.5		
Women	77	47.5		
Age			22.59	2.06
Education				
Intermediate	39	24.1		
Bachelor	74	45.7		
Master	49	30.2		
Employment Status				
Employed	57	35		
Unemployed	105	65		

Note. F=frequency, %=Percentage, M=Mean, SD=Standard deviation

The Table 1 above shows the study included 85 men (52.5%) and 77 women (47.5%) with mean age of 22.59 years, and standard deviation of 2.06. In terms of educational background, most participants held a bachelor's degree (74, 45.7%), followed by

those with a master's degree (49, 30.2%), and a smaller group with intermediate education (39, 21.4%). Concerning employment status, the majority of participants were unemployed (105, 65%), while a smaller proportion were employed (57, 35%).

Table 2

Correlation among Social Media Addiction, Social Connectedness and Aggression (N=162)

Variables	1	2	3	M	SD
1.Social Media Addiction	-	.08	.05	25.89	3.29
2.Social connectedness		-	.47	70	12.2
3. Aggression			-	78.71	19.88

* $p < .05$. ** $p < .01$

The Table 2 above indicates a positive but non-significant difference between social media

addiction, social connectedness, and aggression in Pakistani young adults.

Table 3*Regression Coefficients for Social Media Addiction, Social connectedness and Aggression (N=162)*

Variables	β	SE	t	p	R ²	F	LLCI	ULCI
						.04	2.45	
SMA	-5.65*	2.75	-2.05	.04			-11.09	-.21
SC	-2.16*	1.08	-2	.05			-4.29	-.03
SMA X SC	.09*	.04	2.19	.03			.01	.17

Note. * $p < .05$. ** $p < .01$, SMA= social media addiction, SC=social connectedness

Hayes' Process Model 1 was utilized to examine the moderating role of social connectedness between social media addiction and aggression. According to the table above, there is a significant direct effect of social media addiction on aggression ($\beta = -5.65^*$, $SE = 2.75$, $p < .05$). Furthermore, social connectedness also shows a significant

influence on aggression ($\beta = -2.16^*$, $SE = 1.08$, $p < .05$). The combined effect of social media addiction and social connectedness on aggression is also significant ($\beta = .09^*$, $SE = .04$, $p < .05$), indicating that social connectedness positively moderates the impact of social media addiction on aggression.

Table 4*Gender difference between Social Media Addiction, Social Connectedness and Aggression (N=162)*

Variable	Gender				t(160)	P	Cohen's d
	Male(n=85)		Women(n=77)				
	M	SD	M	SD			
SMA	25.95	3.35	25.83	3.25	.23	.81	0.03
Social connectedness	72.09	12.54	67.62	11.41	2.36	.01	0.37
Aggression	84.32	19.49	72.51	18.53	3.95	<.001	0.62

Note. M= Mean, SD= Standard Deviation, SMA= social media addiction

* $p < .05$. ** $p < .01$, *** $p < .001$

The Table 4 illustrates that social media addiction ($M = 25.95$, $SD = 3.35$, ** $p < .01$) and aggression ($M = 84.32$, $SD = 19.49$, *** $p < .001$) are significantly higher among men.

However, there is no significant difference in social media addiction between genders, despite men having a higher mean score.

Discussion

There is abundant literature shedding light over social media addiction and aggression in Pakistani young adults. However, research investigating the moderating influence of social connectedness between these variables is sparse. Therefore, objective of this study is to find social connectedness as a moderator or buffer between social media addiction and aggression in Pakistani young adults.

The first hypothesis of the study aimed to explore the relationship between the study variables: social media addiction, social connectedness, and aggression. Correlation

analysis results indicate a positive association between these variables in Pakistani young adults, although not statistically significant. Our findings align with the gratification theory, which suggests that problematic social media use or addictive patterns arise due to various available features such as connection with others, entertainment, and information seeking. These behaviors can result in maladaptive outcomes, including aggression, whether offline or online (Ferris et al., 2021; Kurniasanti et al., 2019). Our findings are consistent with previous research indicating that social media shapes aggressive behavior

in adolescents through perceived norms and interaction patterns (Vandenbosch & Eggermont, 2013). The findings indicated a positive but nonsignificant relationship. One possible reason for this could be that social connectedness in the physical world mitigates the effects of social media addiction and aggression by reducing the intensity of both problematic social media use and aggressive behavior. Given that Pakistan is an Asian country that values collectivism and strong family structures, these cultural factors may contribute to the non-significant relationship observed between the study variables.

The second hypothesis of the study proposed that social connectedness would likely moderate the association between the social media addiction and the aggression in Pakistani young adults. Moderation analysis using Hayes Process 4.1 demonstrated that social connectedness significantly moderates the social media addiction and aggression association in Pakistani young adults. This finding is supported by previous research indicating that while problematic social media use can increase aggression, social support, whether online or offline, can mitigate its effects (Tokunaga & Rains, 2010). Another study similarly found that while social media addiction correlates with increased aggression, social connectedness moderates this effect by providing positive interactions, emotional support, and reducing feelings of loneliness (Poon et al., 2020). Our findings stand in contrast to those reported by Savci and Aysan (2017), who found that Internet addiction, social media addiction, digital game addiction, and smartphone addiction collectively accounted for 25% of social connectedness. They identified Internet addiction as having the most significant impact, followed by social media, digital game, and smartphone addictions, respectively. Notably, their study emphasized physical social connectedness, which encompasses aspects such as social support and empathy that can mitigate the effects of social media addiction on aggression among young Pakistani adults. Given the

scarcity of existing literature on this subject, our research seeks to address the gaps identified in previous studies and contribute new insights.

Furthermore, the third hypothesis of the study aimed to investigate gender differences in social media addiction, social connectedness, and aggression among Pakistani young adults. Independent sample t-tests revealed that men exhibit significantly higher levels of social connectedness and aggression. Men also scored higher, though not significantly, on social media addiction compared to women. Our findings are consistent with research indicating higher prevalence of social media addiction and internet gaming addiction among males in university settings (Burén et al., 2021). Additionally, our findings align with meta-analytic studies suggesting that men tend to display more aggression than women, both online and offline, influenced by factors such as cultural norms, societal expectations, and biological factors like testosterone levels (Archer, 2004). The higher levels of social connectedness observed in men are also consistent with research showing that men tend to have larger social networks due to social activities, utilizing these networks for social support and integration (Bianchi et al., 2012). Additionally, a meta-analysis on sex differences in aggression indicates that cultural norms encouraging dominance and aggressiveness in men, along with higher testosterone levels, contribute to their greater social connectedness and aggression (Archer, 2004). Given that this study was conducted in a conservative country like Pakistan, where men often hold dominant roles and women may be subordinated, this cultural context may explain the significant higher scores observed in men for both social connectedness and aggression.

Limitations and Recommendations

The first limitation of this study is that data were collected from a relatively small sample of 162 participants, which may restrict the generalizability of the findings to the broader population; future studies should aim to

increase the sample size for more representative results. Additionally, achieving a balanced distribution regarding education and employment status is crucial to avoid biased conclusions, as the second limitation pertains to the imbalance among subgroups, preventing the application of one-way ANOVA and independent sample t-tests. A third limitation is that the lengthy scales used to measure social connectedness and aggression may have led to participant fatigue, suggesting that future research should consider shorter versions of these scales or break the questionnaire into sections to minimize fatigue; pre-testing or piloting the questionnaire could also enhance response quality. Furthermore, this study did not specifically examine different social media platforms such as Instagram, Facebook, Snapchat, and TikTok, so future research should investigate the effects of specific platforms on aggression to provide a more nuanced understanding of which platforms may pose the greatest risk for addictive behaviors and aggression.

Conclusion & Implications

This study has shown that social connectedness moderates the effect of social media addiction on aggression among young adults in Pakistan, contributing valuable insights to the fields of social and health sciences and providing a foundation for further academic research. Additionally, it aims to raise awareness among Pakistani young adults about the risks associated with excessive social media use, highlighting the importance of seeking support from parents and mental health professionals for those struggling with addiction. It is crucial for the government to recognize the negative impacts of excessive social media use on youth and to make informed decisions regarding regulation while promoting awareness of social connectedness. Parents are encouraged to spend quality time with their children and offer emotional support, as loneliness can exacerbate social media addiction; fostering social connectedness can help mitigate the effects of

addiction on aggression. To further this awareness, seminars will be conducted to inform individuals about the adverse effects of problematic social media use and available support options, such as psychotherapy, while emphasizing the importance of social connectedness in buffering the impact of addiction on aggression. The overall goal is to enhance mental health awareness in Pakistan by discussing the significance of social connectedness in reducing the effects of social media addiction. Additionally, promoting physical activities, including exercise, meditation, and yoga, will be emphasized for their positive impacts on both physical and mental well-being.

Contribution of Authors

Muhammad Sajjad Shahid: Conceptualization, Investigation, Methodology, Data Curation, Formal Analysis, Writing – Original Draft

Sobia Bashir: Conceptualization, Investigation, Methodology, Data Curation, Formal Analysis, Writing – Original Draft

Sukaina Fatima: Methodology, Formal Analysis, Writing - Reviewing & Editing

Conflict of Interest

There is no conflict of interest declared by the authors.

Source of Funding

The authors declared no source of funding.

Data Availability Statement

The datasets of the current study are not available publicly due to ethical reasons but are available from the corresponding author [M.S.S.] upon the reasonable request.

Reference

- Alexiou, A., & Paraskeva, F. (2018). Aggressive behavior and digital game addiction among Pakistani young adults. *Cyberpsychology, Behavior, and Social Networking*, 21(3), 177-183. <https://doi.org/10.1089/cyber.2017.0466>
- Andreassen, C. S., Pallesen, S., & Griffiths, M. D. (2017). The relationship between addictive use of social media,

- narcissism, and self-esteem: Findings from a large national survey. *Addictive Behaviors*, *64*, 287-293. <https://doi.org/10.1016/j.addbeh.2016.03.006>
- Archer, J. (2004). Sex differences in aggression in real-world settings: A meta-analytic review. *Review of General Psychology*, *8*(4), 291-322. <https://doi.org/10.1037/1089-2680.8.4.291>
- Bianchi, S. M., Milkie, M. A., Sayer, L. C., & Robinson, J. P. (2012). Housework: Who did, does or will do it, and how much does it matter? *Social Forces*, *91*(1), 55-63. <https://doi.org/10.1093/sf/sor009>
- Burén, J., Nutley, S. B., Sandberg, D., Ström Wiman, J., & Thorell, L. B. (2021). Gaming and social media addiction in university students: Sex differences, suitability of symptoms, and association with psychosocial difficulties. *Frontiers in Psychiatry*, *12*, 740867. <https://doi.org/10.3389/fpsy.2021.740867>
- Buss, A. H., & Perry, M. (1992). The aggression questionnaire. *Journal of Personality and Social Psychology*, *63*(3), 452-459. <https://doi.org/10.1037/0022-3514.63.3.452>
- Chen, L., & Liu, Y. (2021). The role of social media addiction and platform usage in predicting aggression: A study in China. *Asian Journal of Social Psychology*, *24*(2), 123-137. <https://doi.org/10.1111/ajsp.12456>
- Cheung, C., & Tse, J. (2022). Social connectedness: Conceptualization, measurement, and implications for social media research. *Journal of Communication*, *72*(1), 74-94. <https://doi.org/10.1093/joc/jqab001>
- Ersoy, A., Tazegül, Ü., & Sancaklı, H. (2012). Aggression level of the young wrestlers to assess in terms of social-demographic (Example of Ankara). *Journal of Human Sciences*, *9*(1), 385-397. <https://doi.org/10.14687/jhs.v9i1.2282>
- Ferris, A. L., Hollenbaugh, E. E., & Sommer, P. A. (2021). Applying the uses and gratifications model to examine consequences of social media addiction. *Social Media+ Society*, *7*(2), 20563051211019003.
- Gentile, D. A., Nathanson, A. I., Rasmussen, E. E., Reimer, R. A., Walsh, D. A., & Eisenmann, J. C. (2012). Do you see what I see? Parent-child similarity in aggression-related television viewing and the moderating role of parental mediation. *Journal of Broadcasting & Electronic Media*, *56*(4), 394-413. <https://doi.org/10.1080/08838151.2012.732140>
- Hannah, A., Harkins, L., & Walmsley, J. (2017). Social connectedness: A concept analysis. *International Journal of Nursing Studies*, *71*, 32-44. <https://doi.org/10.1016/j.ijnurstu.2017.03.012>
- Holmgren, H. G., Coyne, S. M., Stange, J. P. (2017). Verbal aggression and social connectedness as predictors of adolescent self-harm. *Journal of Research on Adolescence*, *27*(2), 451-463. <https://doi.org/10.1111/jora.12340>
- Hunt, M. G., Xu, E., Fogelson, A., & Rubens, J. (2023). Follow friends one hour a day: limiting time on social media and muting strangers improves well-being. *Journal of Social and Clinical Psychology*, *42*(3), 187-213. <https://doi.org/10.1521/jscp.2023.42.3.187>
- Infante, D. A. (1995). Teaching students to understand and control verbal aggression. *Communication Education*, *44*(1), 51-63. <https://doi.org/10.1080/03634529509378997>
- Jiang, L., Lu, A., Lin, Y., Liu, S., Li, J., Song, T., Li, C., Huang, X., Wang, X., Luo, J., Ye, L., Jian, Y., & Zhong, W. (2023). Fear of missing out as a mediator and

- social capital as a moderator of the relationship between the narcissism and the social media use among adolescents. *Psihologija*, 56(4), 451-474. <https://doi.org/10.2298/PSI211212024J>
- Kurniasanti, K. S., Assandi, P., Ismail, R. I., Nasrun, M. W. S., & Wiguna, T. (2019). Internet addiction: a new addiction? *Medical Journal of Indonesia*, 28(1), 82-91. <https://doi.org/10.13181/mji.v28i1.2752>
- Lee, J., Kim, S., & Hong, J. (2022). The moderating role of social support in the relationship between social media addiction and aggression among Pakistani young adults in South Korea. *Asian Journal of Communication*, 32(1), 45-62. <https://doi.org/10.1080/01292986.2021.2012345>
- Lee, R. L. T., & Loke, A. Y. (2018). Health-promoting behaviors and psychosocial well-being of university students with internet-related addictive behaviors: A cross-sectional study in Hong Kong. *BMC Public Health*, 18(1), 1120. <https://doi.org/10.1186/s12889-018-6000-8>
- Lee, R. M., Draper, M., & Lee, S. (2001). Social connectedness, dysfunctional interpersonal behaviors, and psychological distress: Testing a mediator model. *Journal of Counseling Psychology*, 48(3), 310. <https://doi.org/10.1037//OO22-0167.48.3.310>
- Lin, S., Longobardi, C., Gastaldi, F. G. M., & Fabris, M. A. (2023). Social Media Addiction and Aggressive Behaviors in Early Adolescents: The Mediating Role of Nighttime Social Media Use and Sleep Quality. *The Journal of Early Adolescence*. <https://doi.org/10.1177/02724316231160142>
- Lisitsa, E., Benjamin, K. S., Chun, S. K., Skalisky, J., Hammond, L. E., & Mezulis, A. H. (2020). Loneliness among Pakistani young adults during COVID-19 pandemic: The mediational roles of social media use and social support seeking. *Journal of Social and Clinical Psychology*, 39(8), 708-726. DOI:10.1521/jsep.2020.39.8.708
- McCauley, C. (2017). Constructing terrorism: From fear and coercion to anger and jujitsu politics. In M. Stohl, R. Burchill, and S. Englund (Eds.). *Constructions of terrorism: An interdisciplinary approach to research and policy* 79-90. Oakland, CA: University of California Press.
- Nikou, S., & Bouwman, H. (2014). Ubiquitous use of mobile social network services. *Telematics and Informatics*, 31(3), 422-433. <https://doi.org/10.1016/j.tele.2013.11.002>
- Obar, J. A., & Wildman, S. S. (2015). Social media definition and the governance challenge-an introduction to the special issue. *Obar, JA and Wildman, S. (2015). Social media definition and the governance challenge: An introduction to the special issue. Telecommunications policy*, 39(9), 745-750. <https://doi.org/10.1016/j.telpol.2015.07.014>
- Poon, K. T., Teng, F., Chui, W. H., & Cheng, C. (2020). The relationship between social media use, social connectedness, and academic performance in adolescents: A meta-analysis. *Developmental Psychology*, 56(12), 2225-2239. <https://doi.org/10.1037/dev0001124>
- Savci, M., & Aysan, F. (2017). Technological addictions and social connectedness: predictor effect of internet addiction, social media addiction, digital game addiction and smartphone addiction on social connectedness. *Dusunen Adam: Journal of Psychiatry & Neurological Sciences*, 30(3), 202-216.

- <https://psycnet.apa.org/doi/10.5350/DAJPN2017300304>
- Shi, C., Yu, L., Wang, N., Cheng, B., & Cao, X. (2020). Effects of social media overload on academic performance: A stressor–strain–outcome perspective. *Asian Journal of Communication, 30*(2), 179-197. <https://doi.org/10.1080/01292986.2020.1748073>
- Tarafdar, M., Maier, C., Laumer, S., & Weitzel, T. (2020). Explaining the link between technostress and technology addiction for social networking sites: A study of distraction as a coping behavior. *Information Systems Journal, 30*(1), 96-124. <https://doi.org/10.1111/isj.12253>
- Tokunaga, R. S., & Rains, S. A. (2010). The effects of anonymity and social identity salience on aggressive Internet behavior. *Computers in Human Behavior, 26*(6), 1837-1845. <https://doi.org/10.1016/j.chb.2010.06.012>
- Turel, O., & Serenko, A. (2012). The benefits and dangers of enjoyment with social networking websites. *European Journal of Information Systems, 21*, 512-528. <https://doi.org/10.1057/ejis.2012.1>
- Twenge, J. M., Martin, G. N., & Spitzberg, B. H. (2019). Trends in US Adolescents' media use, 1976–2016: The rise of digital media, the decline of TV, and the (near) demise of print. *Psychology of Popular Media Culture, 8*(4), 329. <https://doi.org/10.1037/ppm0000185>
- Unachukwu, G.C, Ebenebe, R., C., & Nwosu, K.C. (2019). *Developmental psychology and education*. Enugu-Nigeria: Agatha Press.
- Vandenbosch, L., & Eggermont, S. (2013). Understanding sexual objectification: A comprehensive approach toward media exposure and girls' internalization of beauty ideals, self-objectification, and body surveillance. *Journal of Communication, 63*(5), 869-887. <https://doi.org/10.1111/jcom.12056>
- Xie, X., Chen, W., Zhu, X., & He, D. (2019). Parents' phubbing increases Adolescents' Mobile phone addiction: Roles of parent-child attachment, deviant peers, and gender. *Children and Youth Services Review, 105*, 104426.
- Yang, L., & Wang, H. (2023). Social media addiction, aggression, and the moderating role of social connectedness: A study among adolescents in China. *Asian Journal of Social Psychology, 26*(1), 78-92. <https://doi.org/10.1111/ajsp.12478>