



RESEARCH PAPER

Exploring the Effects of Social Media Usage on Peer Relationship among College Students

¹Rabia Rashid*, ²Dr. Muhammad Jamil Bajwa and ³Dr. Muhammad Naeemullah

1. M.Phil Scholar, Department of Education, Northern University, Nowshera, KP, Pakistan
2. Professor, Department of Education, Northern University, Nowshera, KP, Pakistan
3. Head of Department, Department of Education, Northern University, Nowshera, KP, Pakistan

Corresponding Author

rabia_heco@hotmail.com

ABSTRACT

Social media has become a central aspect of college students' lives, significantly influencing how they interact and maintain peer relationships. This study aimed to investigate the comparative effects of social media use on peer relationships among male and female college students in Islamabad. The objectives of the study were: to find out, investigate and compare the effect of social media usage on male and female college students of Islamabad. The sample of 71 students (54 female and 17 male) from different colleges were selected randomly and data was collected by using a questionnaire. Data were tabulated and results showed that use of social media platforms had significant effects on self-esteem and peer relationships among college students. The study suggested that awareness campaigns could help students to use social media in a positively controlled ways.

Keywords: Peer Relationship, Psychological Well-being, Self-esteem, Social Comparison, Social Connectedness, Social Media

Introduction

Social media is an integral part of college students' lives, transforming their relationships. Platforms like WhatsApp, Facebook, Instagram, TikTok, and Snapchat provide global connectivity but raise concerns about their impact on peer relationships. Excessive social media usage leads to increased social comparison, feelings of inadequacy, and challenges with self-esteem and relationships. Understanding these dynamics can help develop interventions to promote positive interactions and minimize negative effects of social media.

Social media facilitates communication and content exchange globally, impacting peer relationships that are crucial for social and emotional development (Muzaffar, et. al., 2019). The widespread adoption of social media platforms, particularly among college students, fundamentally transforms the dynamics of interpersonal communication and interaction. These Platforms provide unprecedented opportunities for connectivity and self-expression but also introduce complex challenges that significantly impact students' social relationships and overall well-being.

Research highlights several areas of concern, notably the phenomenon of social comparison, wherein individuals gauge their own worth against the curated images and lifestyles presented by others online. Self-esteem is vital for well-being and influences behaviour, while social comparison shapes self-perception. Social connectedness involves feelings of belonging and support in peer relationships. On the other hand heavy social media usage increases levels of loneliness, detachment from real world, sense of isolation and anxiety among college students

Moreover, while these platforms facilitate surface-level connections, they may also impact social connectedness, contributing to a sense of social isolation and detachment from real-world relationships. Therefore, while social media offers significant opportunities for communication and community-building, it is essential to address its multifaceted effects on the social and emotional well-being of college students.

Literature Review

Social media has become an integral part of modern life, profoundly influencing how individuals interact, connect, and form relationships. It offers a platform for social learning, emotional expression, and empathy-building, fostering strong and supportive peer connections (Muzaffar, et. al. 2020; Nesi et al., 2023). Greenhow and Lewin (2016) emphasize social media's role in facilitating peer learning by providing access to diverse perspectives and encouraging collaborative problem-solving.

Beyond its positive aspects, social media also shapes social identities, as individuals create online personas that influence peer perception and relationships (Wang & Lee, 2021). It provides a virtual space for young adults to connect with peers, share experiences, and build relationships beyond physical boundaries (Tetteh & Kankam, 2024).

Bandura's Social Learning Theory suggests that individuals learn behaviors, attitudes, and values through observing and imitating others in their social environment, including on social media (Edubirdie, 2022). This leads to increased social learning, with young adults adopting behaviors and norms from peers online, impacting the quality of their relationships (Smith & Jones, 2019; Johnson, 2017). Social media fosters peer influence within microsystems, enhancing social comparison processes (Atkinson, 2021). Social comparison, as individuals relate their lives and achievements with peers, affects self-esteem and connectedness (Ahmed, 2023; Jiang & Ngien, 2020; Vogel et al., 2014).

Social media enhances connectedness and emotional support. Platforms provide channels for individuals to maintain existing friendships, discover common interests, and engage in group activities, enhancing a sense of belonging (Tetteh & Kankam, 2024; Fabris et al., 2023). Abel et al. (2020) note that social media strengthens long-distance relationships by fostering continuous communication and interaction. Social media also offers emotional assistance, advice, and encouragement through peer interactions (Nesi et al., 2023), and participation in online communities helps reduce feelings of isolation (Naslund et al., 2016; Fareed, et. al., 2019); Primack et al., 2017). These interactions promote empathy and understanding, creating more tolerant and supportive peer relationships (Bilewicz, 2009; Yue et al., 2024).

Despite its positive aspects, social media also introduces challenges such as social comparison and envy. Festinger's Social Comparison Theory posits that individuals assess their social and personal worth by comparing themselves to others (Crusius et al., 2022). Exposure to curated lives on social media can lead to lowered self-esteem, dissatisfaction, and jealousy (Chukwuere & Chukwuere, 2023; Qiu, 2024). The pressure to present idealized versions of oneself on social media often results in a sense of inadequacy, which can strain peer relationships and reduce self-esteem (Moningka & Eminiari, 2020). Moreover, excessive use of social media can lead to dependency on virtual interactions, further isolating individuals from face-to-face communication (Vannucci, 2017).

Cyberbullying is a significant negative consequence of social media, impacting peer relationships by creating conflicts, trust issues, and emotional distress (Mishna et al., 2021). Yu (2023) highlights that while social media facilitates communication, it can also foster environments where cyberbullying occurs, leading to strained peer connections. Dredge (2023) underscores the emotional toll of cyberbullying on young adults, suggesting

that the anonymous nature of social media makes it easier for negative behaviors to emerge, which affects both peer relationships and self-esteem.

Studies have shown that social media use can negatively affect face-to-face communication skills. Twenge (2017) suggests that today's super-connected youth may struggle with real-life interactions due to overreliance on virtual platforms. Venter (2019) found that excessive social media use leads to a decline in nonverbal communication skills and meaningful in-person conversations, weakening peer relationships. The "like culture" prevalent on social media often prioritizes online validation over authentic social interactions (Verhulp et al., 2017), potentially diminishing the depth and quality of relationships.

The relationship between social media and self-esteem has garnered significant attention. Holland and Tiggemann (2016) found a correlation between frequent social media use and higher levels of appearance-focused behaviors, leading to body dissatisfaction. The "selfie culture" on platforms like Snapchat has been linked to increased self-objectification, especially among young adults, affecting self-esteem (Acic & Taylor, 2023; Lyu et al., 2021). Studies reveal that social media amplifies body image concerns, with users internalizing appearance ideals and feeling pressured to conform to societal beauty norms (Cohen et al., 2018; Ryding & Kuss, 2020). Positive or negative feedback from peers on social media can reinforce or challenge these perceptions, further impacting self-esteem (Kim, 2020). The discrepancy between idealized online representations and real-life experiences can also contribute to feelings of inadequacy and lower self-worth (Holland & Tiggemann, 2016; Bloemen & De Coninck, 2020).

While social media can introduce negative comparisons, it also provides platforms for self-expression and connectedness. Online communities serve as spaces where individuals share experiences, seek advice, and offer emotional support, enhancing well-being (Naslund, 2016; Primack, 2017). Social media fosters real-time interaction and information sharing, creating a sense of closeness among peers, even in the absence of physical proximity (Burke & Kraut, 2016). However, Hunt (2018) found that excessive social media use is associated with anxiety and depression, affecting young adults' ability to maintain healthy peer relationships.

The "fear of missing out" (FOMO) is another phenomenon influenced by social media, where individuals feel anxious or stressed when perceiving that they are excluded from exciting activities shared by their peers (Przybylski et al., 2013). This often leads to social comparison and envy, further straining peer relationships (Twenge, 2017). Qiu (2024) highlights how the constant stream of idealized experiences showcased on social media creates a cycle of dissatisfaction, particularly among young adults still forming their sense of self-worth. This thematic arrangement allows a structured understanding of how social media impacts peer relationships, self-esteem, social skills, and emotional well-being.

Material and Methods

The research methodology section outlines the approach, procedures, and tools used in this study to investigate the effects of social media usage on social connectedness, self-esteem, and social comparison among college students. The methodology is designed to ensure the validity and reliability of the research findings while addressing the specific objectives and research questions. This study employs a **quantitative research design**, using a descriptive survey method to gather numerical data and assess the relationships between social media usage and its impact on peer relationships, self-esteem, and social comparison. This design is appropriate for obtaining measurable data and identifying patterns, correlations, and differences among the targeted population.

Population and Sample

The population for this study consists of college students aged 20 to 25 years enrolled in public sector colleges in Islamabad, Pakistan. This age group is chosen because social media usage is prevalent among young adults, making them an ideal demographic for examining its impact on social interactions and self-perception. The study focused on college students aged 20 to 25 years enrolled in public sector colleges in Islamabad. A convenient sampling technique was employed to select a sample of 71 students, comprising 17 males and 54 females. This targeted approach allowed for a focused examination of the specific demographic within the Islamabad college student population.

Research Instrument

A five-point Likert scale questionnaire was developed to assess social connectedness, social comparison, and self-esteem among college students, while controlling for age and gender. The questionnaire underwent a rigorous piloting process to ensure its reliability and validity. In the first phase, two educational experts evaluated the questionnaire, leading to the rearrangement of questions, the addition of three new questions, and the removal of two. In the second phase, a pilot test with college students confirmed the questionnaire's clarity and effectiveness, resulting in no further revisions. This piloting process enhanced the instrument's trustworthiness and ensured that it accurately measured the intended constructs.

Data Collection

Researchers personally collected the data through an online Google survey form. Questionnaires were distributed to the sample of the study to collect information from college students of Islamabad. During data collection, each respondent was given a link to the questionnaire to fill out, which they then submitted to the researcher. The collected data was organized, tabulated, and analyzed using statistical software SPSS to determine the effect of social media usage on peer relationships among college students in Islamabad.

Results and Discussion

Table 1
Demographic Characteristics of the Sample

Item		N	Percentage	Mean	Std Deviation
Gender	Male	17	24	1.76	0.43
	Female	54	76		
Age	20 years-21 years	27	31	1.68	0.475
	22 years-23 years	30	26	1.88	0.326
	24 years-25 years	14	14	1.71	0.469

The sample consisted of more females (mean = 1.76, SD = 0.43) than males. Participants ranged in age from 20 to 25 years.

- Age 20-21: 31% of the sample (n = 27) were aged 20-21 years, with a mean score of 1.68 (SD = 0.475).
- Age 22-23: 26% of the sample (n = 30) were aged 22-23 years, with a mean score of 1.88 (SD = 0.326).
- Age 24-25: 14% of the sample (n = 14) were aged 24-25 years, with a mean score of 1.71 (SD = 0.469).

The majority of participants were aged 20-23 years.

Table 2
Students Perception about Social Connectedness

Item	N	Min	Max	Mean	Std Deviation
Social media has positively impacted my sense of connectedness with peers.	71	1	5	3.37	0.832
I have experienced an increase in social support and understanding from peers through interactions on social media platforms.	71	1	5	3.42	1.065
Social media fosters empathy and tolerance by exposing individuals to diverse perspectives.	71	1	5	3.14	0.975
Discussions on social media have helped me gain a better understanding of different opinions and backgrounds.	71	1	5	3.58	1.065
Social media platforms contribute positively to maintaining and nurturing meaningful relationships with peers.	71	1	5	3.39	0.993
Social media interactions are a valuable source of emotional assistance, advice, or encouragement from peers.	71	1	5	3.20	0.965
Social media has improved my ability to stay connected with peers who are physically distant.	71	1	5	3.59	1.103

Students generally perceive social media as a valuable tool for fostering social connections and understanding. A majority agree that social media enhances their connections with peers ($M = 3.37$, $SD = 0.832$) and promotes knowledge sharing and social support ($M = 3.42$, $SD = 1.065$). While there is a range of opinions, students tend to believe that social media contributes to increased tolerance and empathy ($M = 3.14$, $SD = 0.975$). Additionally, they perceive it as a platform for understanding diverse viewpoints and backgrounds ($M = 3.58$, $SD = 1.065$) and for maintaining relationships with distant peers ($M = 3.59$, $SD = 1.103$). Although opinions vary, students generally perceive social media as a positive tool for emotional support ($M = 3.20$, $SD = 0.965$) and fostering meaningful relationships ($M = 3.39$, $SD = 0.993$).

Table 3
Social Media's impact on Self Esteem

Item	N	Min	Max	Mean	Std Deviation
Social media helps me maintain closer relationships with my peers.	71	1	5	2.69	1.022
Constant exposure to idealized portrayals of peers on social media does not affect my self-esteem or self-worth.	71	1	5	3.00	1.082
I feel confident in presenting my authentic self on social media.	71	1	5	3.08	0.982
Social media interactions enhance my self-esteem.	71	1	5	3.11	1.036
I feel included when I see my peers engaging in social activities on social media.	71	1	5	3.00	1.108
Social media makes it easier for me to connect with new people and expand my social circle.	71	1	5	3.31	1.103
I feel satisfied regardless of the number of likes or comments on my social media posts.	71	1	5	2.58	1.155

Students hold diverse opinions regarding social media's influence on relationships and self-esteem. While some students believe social media helps maintain closer relationships ($M = 2.69$, $SD = 1.022$), others disagree. There is a division of opinion regarding social media's impact on self-esteem. While some students feel pressured to

present idealized versions of themselves ($M = 3.08$, $SD = 0.982$), others believe social media interactions can boost self-esteem ($M = 3.11$, $SD = 1.036$). However, the impact of idealized portrayals on self-esteem is also a point of contention ($M = 3.00$, $SD = 1.082$). Regarding social connection, students express mixed feelings. Some feel excluded when not included in social media activities ($M = 3.00$, $SD = 1.108$), while others recognize its value for networking ($M = 3.31$, $SD = 1.103$). Although anxiety related to social media interactions is generally low ($M = 2.58$, $SD = 1.155$), it is still a concern for some students.

Table 4
Social Media's Impact on Social Comparison and Mental Health

Item	N	Min	Max	Mean	Std Deviation
I do not compare my achievements, appearance, or social activities with others on social media platforms.	71	1	5	2.75	1.204
Social media does not contribute to feelings of jealousy or envy regarding the lives and accomplishments of my peers.	71	1	5	2.94	1.040
I do not feel a fear of missing out (FOMO) when seeing peers engaging in exciting activities on social media without me.	71	1	5	2.99	1.153
Social media provides valuable emotional support through feedback from peers.	71	1	5	3.32	1.011
I have noticed an increase in physical interaction within my community despite using social media.	71	1	5	3.56	1.131

Students have mixed feelings about the impact of social media on social comparison and mental health. While many students are generally indifferent or slightly opposed to social comparison on social media ($M = 2.75$, $SD = 1.204$), a significant number engage in this behavior. Students tend to neither strongly agree nor disagree with feeling jealous of their friends' accomplishments on social media ($M = 2.94$, $SD = 1.040$). There is a wide range of experiences with (Fear of Missing Out) FOMO ($M = 2.99$, $SD = 1.153$), indicating that some students are more affected by it than others. Despite variations in individual experiences ($SD = 1.011$), students generally agree that social media can provide emotional support ($M = 3.32$). While students generally agree that social media has decreased personal connections in their communities ($M = 3.56$, $SD = 1.131$), there is significant variation in individual experiences.

Discussion

The demographics reveal a significant female majority among the students, with 76% being female and 24% male. The percentages of age brackets suggest that the majority of participants fall within the 20 to 21 years old (31%) and 23 to 24-year-old range (26%), with the smallest representation in the 24 to 25-year-old category (14%).

The Social Learning Theory by Bandura 1977, posits that students may learn behaviors, communication styles, and values from their peers and influencers on social media. In Islamabad, students' exposure to various online personalities and peers may shape their interactions, both online and offline. The imitation of online behaviors, such as communication styles, can directly impact how students relate to each other, potentially leading to changes in peer relationship dynamics. Vygotsky's theory emphasizes the role of social interactions in cognitive and socioemotional growth. Social media serves as a modern platform where these interactions occur, offering both support and challenges to traditional peer relationship development. For students in Islamabad, social media interactions may serve as scaffolds for building and navigating complex social networks, helping them develop socioemotional skills but also introducing new stressors like cyberbullying and social comparison.

The Social Comparison Theory which Leon Festinger created in 1954, asserts that people have a natural desire to evaluate themselves by comparing themselves to others. (Festinger,1954) This theory is crucial in understanding how social media affects self-esteem and peer relationships. The tendency to compare oneself to others is amplified on platforms like Instagram, where students might constantly see idealized versions of their peers' lives. This can lead to feelings of inadequacy, envy, or superiority, which can strain peer relationships. (Tiggemann & Slater, 2017)

Enhanced social connectedness through social media platforms such as Instagram and WhatsApp facilitate instant communication, helping students maintain and strengthen existing friendships. Studies like those by Lee et al. (2021) indicate that these platforms can enhance social support and a sense of belonging within peer groups, crucial for students in Islamabad navigating the demands of higher education.

Research by Turkle (2012) highlights how social media provides avenues for emotional assistance and advice, fostering a supportive environment that enhances peer connections. In the context of Islamabad's student community, where academic and social pressures are high, these platforms can offer vital emotional support.

The literature underscores how constant exposure to curated, idealized images on social media can lead to negative self-perception and body dissatisfaction (Qiu, 2024). For students in Islamabad, this can manifest as reduced self-esteem, which in turn affects their peer relationships, leading to feelings of inadequacy or competition.

Studies by Twenge (2017) suggest that increased screen time leads to a decline in direct, face-to-face communication skills. For students, this can result in superficial online interactions replacing deeper, more meaningful in-person relationships, ultimately weakening the quality of peer bonds.

The cultural context of Islamabad, where social norms and expectations play a significant role in shaping behavior, adds another layer to the discussion. Social media can both reflect and challenge these norms, influencing how students perceive and interact with their peers. For example, the pressure to conform to societal beauty standards, amplified by social media, can affect students' self-esteem and peer dynamics.

Conclusion

In conclusion, social media influences peer relationships, social connectedness, social comparison, and self-esteem among young adults. Where social media platforms like Instagram and WhatsApp enhance communication and social support, fostering a sense of community and belonging, they also contribute to challenges like social comparison and its impact on self-esteem.

Social media often amplifies social comparison, exposing young adults to idealized portrayals of their peers. This can lead to feelings of inadequacy, envy, and dissatisfaction, straining peer relationships. Women, in particular, may experience heightened pressure related to appearance, while men may face comparisons in terms of success and lifestyle, each affecting their self-esteem differently.

Despite these challenges, social media also offers positive avenues for social connectedness. It allows young adults to maintain friendships, discover shared interests, and find supportive online communities that provide emotional support and a sense of belonging.

Ultimately, the effects of social media on social connectedness, social comparison, and self-esteem are complex and multifaceted. While it can both enhance and strain peer

relationships, a mindful approach to social media use is essential for maintaining a positive self-image and healthy relationships in the digital age.

Recommendations

Following are the recommendations are proposed after the conclusion of the study:

- **Expand the Scope:** Conduct future research with diverse age groups and genders to gain a more comprehensive understanding of the impact of social media on mental health and well-being.
- **Acknowledge Temporal Limitations:** Recognize the dynamic nature of social media platforms and online behaviors, and consider conducting longitudinal studies to capture evolving trends and impacts.
- **Enhance Sampling Rigor:** Employ random sampling techniques to improve the representativeness of study samples and strengthen the generalizability of findings.
- **Promote Responsible Social Media Use:** Implement awareness campaigns and educational programs to foster healthy social media habits among college students.
- **Explore Broader Impacts:** Future research should delve deeper into the multifaceted effects of social media on mental health, including its influence on social interactions, self-esteem, and body image.

References

- Abel, S., Machin, T., & Brownlow, C. (2020). Social media, rituals, and long-distance family relationship maintenance: A mixed-methods systematic review. *New Media & Society*, 23(3), 632–654. <https://doi.org/10.1177/1461444820958717>
- Ahmed, M. (2023). Psychological Impact of Social Media Addiction on Interpersonal Relationships in Pakistan. *International Journal of Psychology*, 8(4), 53–65.
- Atkinson, R. L. (2021). *Exploring The Impacts of Social Media Use On Young Adults' Self-Esteem And Perceived Impact On Psychological Diagnoses Or Emotional Disturbance Eligibility* (Doctoral dissertation, University of North Texas). <https://digital.library.unt.edu/ark:/67531/metadc1833457/>
- Bilewicz, M. (2009). Perspective Taking and Intergroup Helping Intentions: The Moderating Role of Power Relations. *Journal of Applied Social Psychology*, 39(12), 2779–2786. <https://doi.org/10.1111/j.1559-1816.2009.00548.x>
- Bloemen, N., & De Coninck, D. (2020). Social Media and Fear of Missing Out in Adolescents: The Role of Family Characteristics. *Social Media + Society*, 6(4), 205630512096551. <https://doi.org/10.1177/2056305120965517>
- Burke, M., & Kraut, R. E. (2016). The Relationship Between Facebook Use and Well-Being Depends on Communication Type and Tie Strength. *Journal of Computer-Mediated Communication*, 21(4), 265–281. <https://doi.org/10.1111/jcc4.12162>
- Chukwuere, G. C. J., & Chukwuere, J. E. (2023). The Difficulties Posed by Digital Technology: Understanding the Psychological Consequences of Social Media Use on Young Adults' Body Image and Self-Esteem. *Academic Journal of Interdisciplinary Studies*, 12(6), 379. <https://doi.org/10.36941/ajis-2023-0176>
- Cohen, R., Newton-John, T., & Slater, A. (2018). 'Selfie'-objectification: The role of selfies in self-objectification and disordered eating in young women. *Computers in Human Behavior*, 79, 68–74. <https://doi.org/10.1016/j.chb.2017.10.027>
- Crusius, J., Corcoran, K., & Mussweiler, T. (2022). Social Comparison. In D. Chadee (Ed.), *Theories in social psychology* (2nd ed. pp. 165–187). Wiley. <https://doi.org/10.1002/9781394266616.ch7>
- Edubirdie (2022). *Use of Social Media in Jiang Education: Social Learning Theory*. (Blog Post). Edubirdie. Retrieved from <https://edubirdie.com/examples/use-of-social-media-in-education-social-learning-theory/>
- Fabris, M. A., Settanni, M., Longobardi, C., & Marengo, D. (2023). Sense of Belonging at School and on Social Media in Adolescence: Associations with Educational Achievement and Psychosocial Maladjustment. *Child Psychiatry & Human Development*. <https://doi.org/10.1007/s10578-023-01516-x>
- Fareed, G., Muzaffar, M., & Riaz, A. (2019). Enigma of Political Parties in Political Socialization of Pakistan: A Case Study of Muslim League, *Pakistan Social Sciences Review*, 3(II), 268–281
- Festinger, L. (1954). A Theory of Social Comparison Processes. *Human Relations*, 7(2), 117–140. <https://doi.org/10.1177/001872675400700202>

- Greenhow, C., & Lewin, C. (2015). Social media and education: reconceptualizing the boundaries of formal and informal learning. *Learning, Media and Technology*, 41(1), 6–30. <https://doi.org/10.1080/17439884.2015.1064954>
- Holland, G., & Tiggemann, M. (2016). A systematic review of the impact of the use of social networking sites on body image and disordered eating outcomes. *Body Image*, 17, 100–110. <https://doi.org/10.1016/j.bodyim.2016.02.008>
- Hunt, M. G., Marx, R., Lipson, C., & Young, J. (2018). No More FOMO: Limiting Social Media Decreases Loneliness and Depression. *Journal of Social and Clinical Psychology*, 37(10), 751–768. <https://doi.org/10.1521/jscp.2018.37.10.751>
- Jiang, S., & Ngien, A. (2020). The Effects of Instagram Use, Social Comparison, and Self-Esteem on Social Anxiety: A Survey Study in Singapore. *Social Media + Society*, 6(2), 205630512091248. <https://doi.org/10.1177/2056305120912488>
- Kim, H. M. (2020). What do others' reactions to body posting on Instagram tell us? The effects of social media comments on viewers' body image perception. *New Media & Society*, 23(12), 3448–3465. <https://doi.org/10.1177/1461444820956368>
- Lyu, Z., Jiao, Y., Zheng, P., & Zhong, J. (2021). Why do selfies increase young women's willingness to consider cosmetic surgery in china? The mediating roles of body surveillance and body shame. *Journal of Health Psychology*, 27(5), 1205–1217. <https://doi.org/10.1177/1359105321990802>
- Mishna, F., Birze, A., Greenblatt, A. *et al.* Benchmarks and Bellwethers in Cyberbullying: the Relational Process of Telling. *Int Journal of Bullying Prevention* 3, 241–252 (2021). <https://doi.org/10.1007/s42380-020-00082-3>
- Moningka, C., & Eminiari, P. R. (2020). The effect of self-comparison in social media on self-esteem. *Joint Proceedings of the 3rd International Conference on Intervention and Applied Psychology (ICIAP 2019) and the 4th Universitas Indonesia Psychology Symposium for Undergraduate Research (UIPSUR 2019)*. Atlantis Press.
- Muzaffar, M., Chohdhry, S., & Afzal, N. (2019). Social Media and Political Awareness in Pakistan: A Case Study of Youth, *Pakistan Social Sciences Review*, 3 (II), 1-13
- Muzaffar, M., Yaseen, Z., Safdar, S. (2020). Role of Social Media in Political Campaigns in Pakistan: A Case of Study of 2018 Elections, *Journal of Political Studies*, 27 (2), 141-151
- Naslund, J. A., Aschbrenner, K. A., Araya, R., Marsch, L. A., Unützer, J., Patel, V., & Bartels, S. J. (2016). Digital technology for treating and preventing mental disorders in low-income and middle-income countries: A narrative review of the literature. *The Lancet Psychiatry*, 3(4), 388–400. [https://doi.org/10.1016/S2215-0366\(15\)00482-7](https://doi.org/10.1016/S2215-0366(15)00482-7)
- Nesi, J., Dredge, R., Maheux, A. J., Roberts, S. R., Fox, K. A., & Choukas-Bradley, S. (2023). Peer experiences via social media. In *Elsevier eBooks* (pp. 182–195). <https://doi.org/10.1016/b978-0-12-818872-9.00046-7>
- Primack, B. A., Shensa, A., Sidani, J. E., Whaite, E. O., Lin, L. Y., Rosen, D., ... & Miller, E. (2017). Social media use and perceived social isolation among young adults in the U.S. *American Journal of Preventive Medicine*, 53(1), 1-8.
- Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior*, 29(4), 1841–1848. <https://doi.org/10.1016/j.chb.2013.02.014>

- Qiu, Y. (2024). Social Comparison on Social Media Platforms: A media and communication Perspective. *SHS Web of Conferences*, 185, 03008. <https://doi.org/10.1051/shsconf/202418503008>
- Ryding, F. and Kuss, D. (2020). The use of social networking sites, body image dissatisfaction, and body dysmorphic disorder: a systematic review of psychological research.. *Psychology of Popular Media*, 9(4), 412-435.
- Tetteh, P. K., & Kankam, P. K. (2024). The role of social media in information dissemination to improve youth interactions. *Cogent Social Sciences*, 10(1).1-17. <https://doi.org/10.1080/23311886.2024.2334480>
- Tiggemann, M., & Slater, A. (2016). Facebook and body image concern in adolescent girls: A prospective study. *International Journal of Eating Disorders*, 50(1), 80-83.
- Turkle, S. (2012). *Alone together: Why we expect more from technology and less from each other*. Basic Books
- Twenge, J. M. (2017). *IGen: Why today's super-connected kids are growing up less rebellious, more tolerant, less happy – and completely unprepared for adulthood*. Atria Books
- Vannucci, A., Flannery, K. M., & Ohannessian, C. M. (2017). Social media use and anxiety in emerging adults. *Journal of affective disorders*, 207, 163–166. <https://doi.org/10.1016/j.jad.2016.08.040>
- Venter, E. (2019). Challenges for meaningful interpersonal communication in a digital era. *HTS Teologiese Studies / Theological Studies*, 75(1),1-6
DOI: <https://doi.org/10.4102/hts.v75i1.5339>
- Verhoef, R. E., Alsem, S. C., Verhulp, E. E., & De Castro, B. O. (2019). Hostile Intent Attribution and Aggressive Behavior in Children Revisited: A Meta-Analysis. *Child Development*, 90(3), e525–e547. <https://doi.org/10.1111/cdev.13096>
- Vogel, E. A., Rose, J. P., Roberts, L. R., & Eckles, K. (2014). Social comparison, social media, and self-esteem. *Psychology of Popular Media Culture*, 3(4), 206–222.
- Wang, Y., Zhang, J., & Lee, H. (2021). An Online Experiment during COVID-19: Testing the Influences of Autonomy Support toward Emotions and Academic Persistence. *Frontiers in Psychology*, 12, 747209
- Yu,S. (2023).The Influence of Social Media on Interpersonal Relationships.*Communications in Humanities Research*,9,90-97.
- Yue, Z., Zhang, R., & Xiao, J. (2024). Social media use, perceived social support, and well-being: Evidence from two waves of surveys peri- and post-COVID-19 lockdown. *Journal of Social and Personal Relationships*, 41(5), 1279–1297. <https://doi.org/10.1177/02654075231188185>