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THE SOCIAL MEDIA ADDICTION NEGATIVE EMOTIONS AND AGGRESSION: A QUANTITATIVE STUDY OF YOUNG ADULTS

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KEYWORDS	ABSTRACT
<p>Social Media Addiction, Aggression, Negative Emotions, Depressed Mood, Mediator</p>	<p>Young adults frequently engage with social media platforms for various purposes, including the communication, information sharing, business and education. However, excessive use of these platforms can lead to negative outcomes such as aggressive behavior, as suggested by previous research. Despite this, the role of negative emotions, particularly depressed mood, in this association has been largely ignored, especially in Pakistan. This study seeks to address this gap by exploring the association between the social media addiction, depressed mood, and aggression. Using a cross-sectional correlational design and purposive sampling, study focused on 147 young adults aged 18 to 30 (M=20.61, SD=1.52). Results show that while social media addiction is positively related with depressed mood, this association is not statistically significant. However, social media addiction is significantly associated with aggression, depressed mood is positively and significantly associated with aggression. The result also depicts a partial mediation effect of depressed mood in the association between social media addiction and aggression, with both direct and total paths being significant, but indirect path being insignificant. The study concludes with limitations and provides recommendations and implications for supporting the mental well-being of young adults.</p>
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INTRODUCTION

The social media has become essential for modern communication, enabling global connection and idea sharing (Sun & Zhang, 2021). While offering benefits in areas like education, business, and international relations (Jafar, Quick, Larson, Vera, Musuka & Rimányi, 2023; Hadiningrat & Wibowo, 2022), it also presents risks, especially problematic social media use (PSMU). This

behavior disrupts the daily life, affecting work, school, and social responsibilities (Çiçek, Şanlı, Gökmen & Yıldırım, 2024; Espinoza & Juvonen, 2011). Studies highlight a strong link between the excessive social media engagement, depression and increased aggression (Shahid, Bashir & Fatima, 2024). Lin, Longobardi, Gastaldi and Fabris (2024) revealed that nighttime social media use and poor sleep quality mediate link amid problematic use and aggression in adolescents. Kausar, Rana, Nouman and Faisal (2024) also identified positive relationship between gaming dependence and aggression through social connectedness. Moreover, the addiction to online games like Ludo has been linked towards mental health issues and aggression in young adults (Bashir, Shahid, Bibi & Mukhtar, 2024). Verona, Patrick and Lang (2022) showed that negative emotions can heighten the aggression, particularly in the individuals with the high emotional sensitivity.

Problematic social media use is most prevalent among teenagers and young adults, often tied to smartphone use (Khan, Shahid & Majid, 2024). Interestingly, the older adults reported less loneliness during pandemic, likely due to lower social media engagement (Lisitsa, Benjamin, Chun, Skalisky & Mezulis, 2020). Exposure to violent content on social media has also fueled an aggressive culture, particularly among younger users (Otutu, 2023). Since the early 2000s, digital media has increasingly replaced traditional media (Twenge, 2019; Jensen, 2022; Azam, Shakir, Sadaf, Owais & Khan, 2020). Research consistently demonstrates a clear link between problematic social media use and aggression (Yilmaz, 2023), with young adults experiencing depressed moods due to social media use (Shahid, Yousaf & Munir, 2024). In this linking, the recent studies have found that aggression is strongly related to problematic social media use, but not to social media engagement itself in the young adults (Fareed, Jabeen, Aurangzeb & Aslam, 2024). The findings highlight the psychological toll of social media addiction and its broader implications for the interpersonal relationships and societal harmony. Moreover, the problematic social media use has been shown to be linked to aggression through insomnia in the young adults aged 18 to 24 (Bersani, Barchielli, Ferracuti, Carbone, Massullo & Imperatori, 2022).

LITERATURE REVIEW

Social media serves as a platform for sharing ideas and information through user-generated content, promoting engagement through likes, shares, and comments (Aichner, Grünfelder, Maurer & Jegeni, 2021; Purwanto, Fahmi & Cahyono, 2023; Raza, Qazi, Umer & Khan, 2020). Still, excessive and compulsive use can disrupt daily life, affect interpersonal relationships, and contribute to symptoms of depression, loneliness, aggression & overall psychological distress, all of which negatively impact the mental health (Weinstein, 2023; Gómez-Galán et al., 2020; Wegmann et al., 2020; Ahmed, 2023; van Tonder et al., 2023; Wong et al., 2020; Kircaburun et al., 2019; Huang, 2022). Recent study findings revealed a strong association between excessive social media use and increased aggressive behaviour among young adults (Fareed et al., 2024). The excessive social media use exacerbates feelings of inadequacy and frustration, leading to impulsive and aggressive behaviors. Fritz et al. (2020) found that the individuals with major depressive disorder (MDD) exhibited significantly higher aggression levels, including reactive and externally directed aggression, and irritability, compared to healthy controls, underlining

the strong link between depression and aggression, therefore highlighting the need for clinical interventions.

In a study conducted in Khost province, Afghanistan, [Haand et al. \(2020\)](#) identified a positive association amid social media addiction and depression among students. A study in Çorum, involving 296 participants, also explored the connection between social media addiction and aggression, the finding no gender differences in addiction but noting variations in aggression levels between genders, with moderate positive link between addiction and aggression ([Güler et al., 2022](#)). The recent research suggests that online social connectedness is linked to mental health issues, including aggression, among young adults ([Bashir et al., 2024](#); [Khan et al., 2024](#)). This study explores complex relationship between social media addiction, negative emotions, and aggression, focusing on psychological and behavioral impacts of excessive social media use. In this connection, social media addiction has emerged as a significant concern, linked to emotional dysregulation and heightened aggression. Similarly, the exposure to violent content on social media has also fueled an aggressive culture, particularly among the younger users. A study of 374 university students examined the relationships between problematic social media use, depression, as well as the suicidal ideation, finding strong links between problematic use, depression, and suicidal thoughts, with 36.1% reporting the suicidal ideation ([Jasso & Rosales, 2018](#)).

[Shahid et al. \(2024\)](#) focused on depression as a mediator between social media addiction and aggression in the young adults, finding significant positive associations between social media addiction, depression, and aggression, with the depression playing a critical mediating role. Although prior research has identified the negative emotional results of excessive social media use, such as sadness and low self-worth, especially due to social comparisons ([Kim et al., 2021](#); [Jiang & Ngien, 2020](#); [Acar et al., 2022](#); [Ahmed et al., 2021](#); [Midgley et al., 2021](#)), while the role of depressed mood as a mediator remains understudied, particularly in Pakistani context. The study underscores the need for awareness campaigns, digital detox programs, and emotional well-being interventions to mitigate adverse effects of social media addiction. In this linking, different research studies provides recommendations for educators, parents, and policymakers focus on fostering balanced digital habits and addressing emotional health issues among the vulnerable populations. Therefore, the objective of this study is to examine depressed mood as a mediator between social media addiction and aggression among young adults, aiming to develop effective implications and contribute to academic literature for future research on this topic.

RESEARCH METHODOLOGY

This study utilized correlational research design and purposive sampling method. The sample consisted of 147 participants, including both employed and unemployed individuals, as well as college and university students, all aged between 18 and 30. Participants were required to own the smartphone and have been using social media for at least a year. They completed a demographic questionnaire, Bergen Social Media Addiction Scale, a 7-item subscale of Profile of Mood to assess depressed mood, and the Buss-Perry Aggression Questionnaire, which took

15-20 minutes. Data analysis was performed using IBM SPSS version 22 to identify correlations between study variables & gender differences. Hayes Process 4.2 was employed to investigate depressed mood as a mediator between social media addiction and aggression among young adults.

- H1: Social media addiction is likely to positively & significantly associate with depressed mood and aggression among young adults.
- H2: Depressed mood is likely to mediate the link between social media addiction & aggression in young adults.
- H3: Gender differences are likely to exist in the social media addiction, depressed mood, and aggression among young adults.

Study Measures

The demographic questionnaire evaluated participants' demographic attributes, such as age, gender, and education. The Bergen Social Media Addiction Scale, created by [Andreassen et al. \(2012\)](#), comprises six items rated from 1 (very rarely) to 5 (very often). While the original scale demonstrated a reliability of 0.88, this scale is used to measure addiction to social media in participants. Abbreviated Profile of Mood States (Revised version) is a revision of the original Profile of Mood States Questionnaire, developed in 1971 by Douglas M. McNair, Maurice Lorr, and Leo F. Droppleman. The revised version was developed in 1992 by the Robert Grove and Harry Prapavessis. This is a 40-item questionnaire that measures fatigue, anger, vigor, tension, esteem, confusion, and depression. There are four Likert items ranging from "not at all" (1) to "extremely" (4). Thus, in this study, the 7-item subscale of depression was used to measure the depressed mood of young adults. The Cronbach's alpha reliability for this scale was 0.80. The Buss and Perry Aggression Questionnaire (BPAQ), created by Buss and Perry (1992), contains 29 items rated from 1 to 5, ranging from the "extremely uncharacteristic" towards "extremely characteristic." The reliability of the BPAQ is 0.89, which matches the reliability found in this study.

Ethical Considerations

Researchers, in compliance with ethical standards of APA, guaranteed that participants were not exposed to any physical or psychological harm. The privacy of each participant was strictly maintained, with explicit permission obtained from each of them before filling questionnaire, ensuring no coercion, either verbal or physical, was involved during the study. Additionally, the measures were taken to ensure the integrity of the data collected, guarding against any falsification.

RESULTS OF STUDY

Table 1

Demographic Characteristics of 147 participants.

Sample Characteristics	F	%	Mean	SD
Gender				
Men	75	51		

	Women	72	49		
Age				20.61	1.52
Education					
Matric		9	6		
Intermediate		74	50		
Bachelor		45	31		
Master		19	13		

Note. f=frequency, %=Percentage

The table above shows that the study comprised 75 men (51%) and 72 women (49%), with an average age of 20.61 years and a standard deviation of 1.52. In this linking, most participants had an intermediate level of education (74, 50%), followed by those holding a bachelor's degree (45, 31%), a master's degree (19, 13%), and a smaller group with matric education (9, 6%) in this research.

Table 2
Correlation Among Study Variables (N=147).

Variables	1	2	3
1.Social Media Addiction	-	.02	.18*
2.Depressed Mood		-	.21*
3. Aggression			-

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

The table above shows a positive but non-significant association amid social media addiction and depressed mood ($r = .02, p > .05$). In contrast, significant positive associations exist amid SMA and aggression ($r = .18^*, p < .05$), and between depressed mood and aggression ($r = .21, p < .05$).

Table 3
Regression Coefficients For Study Variables In Study 147 Participants.

Antecedent	Consequent												
	Depressed Mood (M)				Aggression (Y)				Aggression (Y) Bootstrap 95% CI				
	β	SE	P		B	SE	P	a.b	β	SE	LL	UL	
SMA (X)	a	.01	.05	.78	c'	.39	.17	.02	a.b	.01	.01	-.03	.04
DM (M)	-	-	-	-	b	.62	.24	.01					
Constant	I	6.79	1.38	<.001	I	46.33	4.38	<.001					
	R2 =.0005				R2 =.07				R2 =.06				
	F=.07, p =.78				F=6, p = .003**				F=10.70				

Note. SMA=Social Media Addiction *p<.05, **p<.01, ***p<.001, a.b= indirect effect of SMA on aggression via mediator depressed mood.

According to table above, social media addiction has a positive but non-significant direct effect on depressed mood ($\beta=.01, SE=.05, p>.05$). Moreover, social media addiction has a significantly

positive direct effect upon aggression ($\beta=.39^*$, $SE=.17$, $p<.05$). The effect of depressed mood on aggression is also significantly positive ($\beta=.62^{**}$, $SE=.24$, $p<.01$). The indirect effect shows that social media addiction does not significantly affect aggression through mediator of depressed mood.

Table 5

Gender Difference between Study Variables(N=147).

	Men(n=75)		Women(n=72)		t(145)	P	Cohen's d
	M	SD	M	SD			
SMA	23.51	3.83	22.65	3.64	1.38	.16	0.23
Depressed Mood	6.6	2.65	7.75	2.58	-2.65	<.01	0.43
Aggression	60.56	7.55	59.21	8.69	1.01	.31	0.16

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

The table illustrates that social media addiction ($M = 23.51$, $SD = 3.83$, $p>.05$) and aggression ($M = 60.65$, $SD = 7.55$, ** $p < .01$) are positively however not significantly higher among men as compared to their counterpart women those who participated in the current research study. Moreover, women score on depressed mood ($M=6.6$, $SD=2.65$, $p<.01$) is significantly high than men.

DISCUSSION

In quantitative analysis of present study, first assumption of study is considerably supported, as association amid social media addiction and depressed mood is positive but not significant. However, association of aggression with social media addiction and association of aggression with depressed mood are significantly positive in young adults. These findings resonate with prior scholarly work, such as seminal study by [Haand and Shuwang \(2020\)](#), which highlighted the heightened vulnerability to depressive manifestations among individuals ensnared by the complexities of social media addiction. The research conducted on young Lebanese adults by [Malaeb et al. \(2021\)](#) provided comprehensive evidence about correlation between detrimental social network habits and depressive symptoms. Furthermore, our study corroborates existing literature indicating that prolonged social media use has a positive association with aggression among young adults ([Bersani et al., 2022](#)). Thus, our findings also align with empirical studies suggesting that aggression and depression significantly and positively interact ([Shahid et al., 2024](#)).

The insignificant association amid depressed mood and social media addiction could be due to the entertainment content consumed by social media users and defense mechanism towards questionnaires. The second hypothesis is also considerably supported, as the indirect effect of social media addiction on aggression via depressed mood is not significant, but the direct and total effects remain significant in young adults. Study conducted by [Akin and Iskender \(2011\)](#) found a positive link amid internet addiction and depressive symptoms, with the latter leading to aggression ([Stucke & Sporer, 2002](#)). Moreover, our empirical findings align with a scholarly study showcasing depression as a key predictor of aggression in adult demographic ([Yavuzer](#)

et al., 2019). Insomnia, a symptom of depression, mediates the association between problematic social media use and aggressive behavior (Bersani et al., 2022), which is similar to findings in our study. Thus, our empirical analysis significantly contributes to advancing understanding of complex association amid maladaptive social media engagement, daily clinical disturbances and mental health issues, such as aggression, mediated by depressed mood, mainly in young adults.

The third hypothesis received the partial empirical validation, as independent sample analysis showed that men scored higher upon aggression and social media addiction than their female counterparts. However, it is noteworthy that although scores are slightly higher for men in both variables, they are not significantly different. These empirical insights resonate with the previous studies, which state that men are more prone to heightened aggression (Güler et al., 2022) and more likely to experience the gaming addiction than women (Shabir et al., 2020). However, findings indicate that women experience more depressive symptoms than men, and the difference is statistically significant. In this connection, the scholarly studies in Germany have reported that females are more prone towards the depressive symptoms than their male counterparts (Abreu et al., 2021). Furthermore, the reserved culture and the male-dominated society of Pakistan may lead towards the emotional suppression, contributing to heightened manifestations of the depressed mood among female participants, as described by Husain et al. (2018).

CONCLUSION

This study employed a cross-sectional design to examine the role of depressed mood in the link between social media addiction and aggression in young adults. The results show that while the social media addiction is positively linked to the depressed mood, this association is not significant. However, the social media addiction and depressed mood are both significantly associated with aggression. The analysis suggests that the depressed mood partially influences this association, with significant direct and total paths, but an insignificant indirect path. The gender differences were observed, with women reporting more depressed mood, and men exhibiting greater social media addiction and aggression, though not significantly. The study provides insights for supporting young adults in dealing social media use & seeking help when needed.

Recommendations and Limitations

The study focuses on individuals aged 18 to 30, limiting its generalizability; so, future research should include a broader age range and avoid sampling biases, such as small sample sizes that may not represent population. Data should be collected equally across educational subgroups, matric, intermediate, bachelor's, and master's – to observe the potential differences. Including employment status as a demographic factor would enhance generalizability. Given the use of a cross-sectional design and convenient sampling, longitudinal research and stratified sampling strategy are recommended for more comprehensive understanding across different cultures & locations.

Implications

The study concludes that SMA contributes to aggression over depressed mood in young adults. To address this, awareness campaigns about responsible social media use should be promoted, alongside encouraging physical activities like meditation, yoga & sports for mental well-being that are required for desired outcomes. The parents should engage more with their children to support their mental health, while mental health professionals can organize the seminars and workshops on the risks of excessive social media use. In this regard, the Young people should be encouraged to seek help without stigma, and policymakers, social media platforms, and government bodies must implement plans to combat excessive use and promote mental health awareness.

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