



The Mediating Role of Phubbing in the Relationship Between Social Media Usage and Fear of Missing Out Among Adults

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ABSTRACT

The fast growth of the social media has fundamentally transformed the ways of human communication, causing the human population to be more dependent on mobile devices as opposed to face-to-face communication. This change is linked to various concerns such as phubbing and the fear of missing out (FoMO) that have negative impacts on emotional health and human relations. The current study aimed at exploring the connection between the use of social media, fear of missing out (FoMO), and phubbing in a group of young adults in Pakistan. Further, the research hypothesized the presence of the mediating role of phubbing between social media use and FoMO. The study used a quantitative and cross-sectional design. Measures of social media usage, phubbing, and FoMO were done through the use of standardized instruments. A convenience sample of 300 adults in Rawalpindi was used to collect data, which were analysed using SPSS. The analyses found positive but strong correlations between social media usage, FoMO, and phubbing. Mediation analysis established that phubbing was significantly mediating the association that existed between social media use and FoMO. In addition, educational attainment had a significant impact on those variables as compared to gender or age. The findings are indicative of the importance of developing mindful digital use as a method of reducing FoMO and phubbing. The constraints of the study are a small sampling structure and use of self-reports measures only. The future studies are supposed to research the functions of emotional regulation and coping mechanisms in connection to digital behavior.

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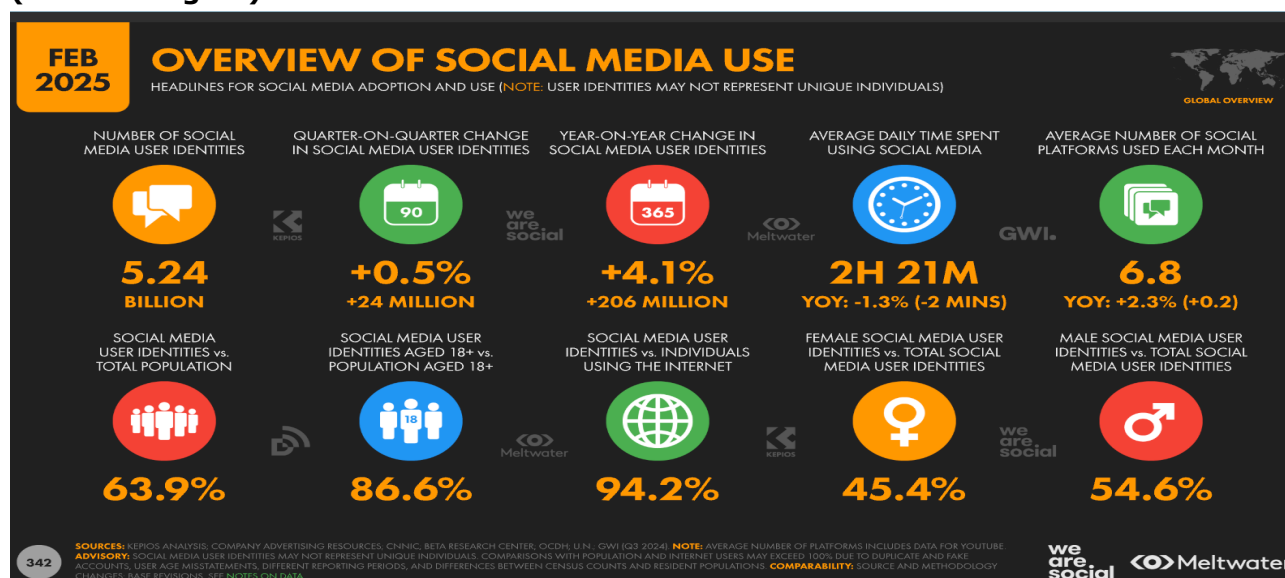
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1. Introduction

The wide spread of the digital technologies has made a fundamental change in the interpersonal interaction pattern especially the case with young adults. Nevertheless, the same connectivity leads to the creation of substantial issues; users spend long hours in the internet, which in turn undermine human in-person communication and raises concerns about mental health and social well-being (Allaniyazova, 2025). The use of social media has become one of the most significant social behaviors in modern communication (Azzaakiyyah, 2023). Although it is entertaining, socially validated, and gives a sense of belonging, the overuse of it may lead to compulsive checking and dependency. People who find great social gratification in such platforms tend to be unable to disconnect hence affecting the normalcy of real-life communication (Janáček & Balázová, 2024). Another glaring example of overuse of the social media is phubbing, or the process of not paying attention to the face-to-face communication in favor of using mobile devices (Mantere, 2022). Phubbing negatively affects the quality of communication, interpersonal relationships, and often leaves other people feeling unnoticed or unwelcome (Garrido et al., 2021); (Khilji & Ambreen, 2025)). With the upsurge in the adoption of the smartphone in everyday life, most people are more interested in satisfying their online

connections rather than physical interaction, and thus, they are socially isolated but are constantly on the internet (Mantere, 2022).

Figure 1 Overview of Social Media Use across the World, Source: Dave-chaffy, 2025 (Smart Insights)



Another major point of this behavioral paradigm is the Fear of Missing Out (FoMO). FoMO is the fear that someone can have pleasant activities not attended by him or her (Tanhan, Özok, & Tayiz, 2022). Phubbing is perpetuated because people with high levels of FoMO check their phones and social media profiles regularly in order to stay up-to-date. This continuous need to be in touch disrupts the ability to concentrate, maintain emotional balance, and the quality of relationships, in general (Tufan et al., 2025). Despite the antecedents of the interrelations between the use of social media, phubbing, and FoMO have been explored in previous studies. In Pakistan, young adults are a highly active and susceptible group due to the fast-paced adoption of social media. Moreover, these behaviors examine the role of digital engagement in bringing changes to emotional and social experiences in real life. Thus, the current study discusses the connection between the social media use, phubbing, and FoMO, with a certain focus on the intervening role of phubbing among Pakistani adults.

1.1. Fear of Missing Out (FoMO)

Fear of Missing Out (FoMO) is a concept that explains why people develop anxieties when they feel that others are living a better life than them. It is an indication of the quest to remain constantly updated with social events and online activities (McBride, 2021). This sense commonly causes people to use the social media excessively in a bid to stay tapped and not to be left out. Research indicates that overuse of social media may cause stress and diminish levels of life satisfaction especially among the young adults (Vagka et al., 2024). Recent studies show that a high rate of users check their phones within minutes of getting out of bed proving that FoMO encourages a habit of spending their time on-line. This always-present compulsion to spy on the lives of others establishes a dependency on the digital confirmation and increases the emotional susceptibility (Ansari et al., 2024). As a result, the person with a greater FoMO is more likely to overlook actual communication and concentrate on the internet news and notices (Nesbit & Lole, 2025).

1.2. Phubbing

Phubbing can be described as a distraction of the immediate social life to concentrate on a cellular phone (Lee et al. 2025). It is a change in behavior as people no longer build communication with each other but prefer online interaction (Nguyen et al., 2022). Studies show that this practice results in social disconnection, the lack of satisfaction in relationships, and a sense of neglect (Shrivastav et al., 2025). In addition, the continuous use of devices is able to lessen empathy and deteriorate the bond of emotions both in personal and professional relationships (Čekić, 2025). In addition, phubbing also is associated with different psychological factors. The consequences of excessive spending of time on social platforms have been

recorded to be stress, low self-esteem, and social anxiety (Ali et al., 2024). This practice does not only influence the emotional level, but also alters the daily routine, decreasing the efficiency and focus in school and workplaces. The more people spend time on the internet, the less the distinction between real and virtual communications (Twenge, 2023).

1.3. Excessive Digital Exposure and Emerging Patterns of Disruption

Constant use of digital media may interfere with emotional regulation and normal operation. Furthermore, long periods of screen time are linked to sleep disruptions, poor affect, and inability to concentrate (Kolhar, Kazi, & Alameen, 2021). In the academic context, such actions can hamper the completion of tasks and the final performance outcomes (Singh et al., 2023). The shift towards the deliberate inclusion of processes to the obsessive digital interactions is a significant issue when it comes to psychological dependency and lack of self-control. Moreover, overuse of social media leads to social comparison, which may create emotions of ineffectiveness or loneliness. This gap between the virtual and the physical highlights how social priorities are being eroded with the digital focus replacing the meaningful interpersonal communication. (Sohail et al., 2024).

1.4. Cognitive and Emotional Drivers of Compulsive Connectivity

The internalized feeling of exclusion is usually the cause of fear-based engagement with digital spaces. This desire to be constantly online is symptomatic of a larger problem of psychological delimitations. People with high FoMO scores are more mentally fatigued, doubtful of themselves, and need external validation (Al-Abyadh, 2025). However, patterns of vulnerability that are consistent with the construct are reduced emotional resilience and disturbed interpersonal expectations (Gupta & Sharma, 2021). It is revealed that FoMO is not simply consistent with the problematic use of platforms but can strengthen its severity by influencing the ways of thinking oriented on social relevance.

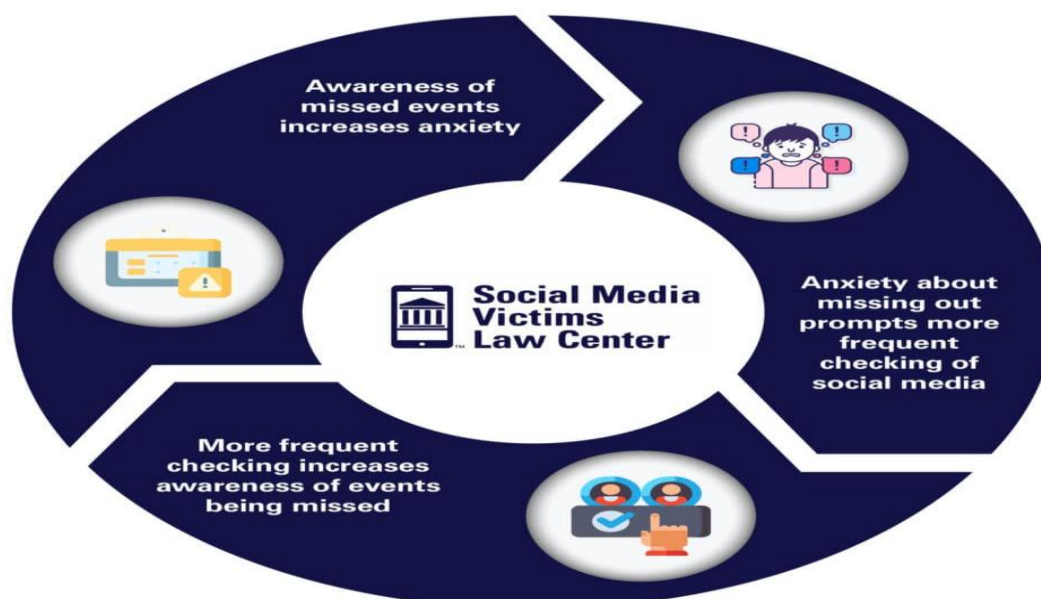
1.5. Disruption of Social Bonds Through Device Attention

One of the most noticeable effects of digital overexposure is the lack of shared presence in the social spaces. Face to face communication is becoming more and more characterized by lapses of divided attention (Janáček & Balázová, 2024). One of the common causes of interpersonal dissatisfaction, identified in research, is this habit that is known as phubbing (Rahmah & Sanyata, 2024). Less eye contact, slow response, and perceived unconcern cause conflict in the interpersonal environment. (Hunter-Brown, 2021) acknowledges that people who have experienced phubbing say that they have lost empathy. Even temporary, the act adds some ambiguity to social interaction and undermines emotional reciprocity (Yue et al., 2024).

1.6. Convergence of FoMO, Digital Use, and Phubbing

Fear of missing out (FoMO), phubbing, and social media use are connected with one another as the digital behaviour. The new empirical data indicate that these phenomena do not act independently but, on the contrary, affect each other in a common behavioural cycle (Yaseen et al., 2021). Social media overuse has been linked to increased FoMO, which makes people regularly check their gadgets to feel up-to-speed on the social front. This monitoring lowers the level of focus in the face-to-face communication, and thus, it contributes to phubbing, undermining interpersonal communication (Akbari et al., 2021). The FoMO sufferers are characterized by a preference of being online, rather than face-to-face. Studies have shown that the whole experience of FoMO leads to a higher risk of stopping a conversation and paying attention to communications (Liao & Sundar, 2022). In line with this, Li et al. (2023) reported that ongoing internet vigilance slowly replaces the emotional presence, which results in social indifference and diminished relationship satisfaction. Taken together, these results indicate that the social media use enhances FoMO, which leads to phubbing. The result of this dynamic is a self-perpetuating circle where internet interactions replace the usefulness of social interaction and personal relationships become meaningless. Even though it has become more evident where these variables intersect, the literature lacks in terms of the mediating or linking influence of certain behaviours. Further research in these relations will help us to comprehend the nature that digital interaction has on emotional well-being and quality of human relationships, which is extremely relevant in the societies that appreciate communal interaction and shared presence (Ragmoun, 2023, 2024; Ragmoun & Alfalih, 2024; Ragmoun & Alwehabie, 2020).

Figure 2: The Vicious Cycle of Social Media-FOMO, Source: Social-media-victims (2024)



1.7. Significance of the Study

The research contributes to the academic knowledge on online behavior and its psychological implications. It finds out phubbing as one of the key behavioural consequences of social media use, and it associates it with such affective constructs as fear of missing out (FoMO). The paper highlights the increased importance of attentional allocation and relationship management in a media environment that is marked by ubiquitous mobile connectivity. In addition, the results provide immense applicability to the psychologists, educators, and policymakers working toward promoting healthier digital practices. Moreover, such results can be used in the awareness programs and institutional campaigns to help decrease excessive screen time to promote mindful social interaction. Moreover, the study also adds the scholarly debate on the concept of digital well-being and provides a perspective on dependence patterns, distraction, and emotional stress linked to constant internet activity.

1.8. Scope of the Study

The current research question is to investigate the mediating role of phubbing in the relationship between social media use and the fear of missing out (FoMO) in adults in Pakistan. It targets people between the ages of 18 and 35 years; this age bracket spends considerable time on the internet and is thus highly susceptible to psychological consequences of overuse. To examine behavioral and affective variables, a quantitative, cross-sectional design was used and the variables were examined using standardized measures. The paper is written on non-clinical populations and it does not address diagnostic or therapeutic settings. Findings will seek to clarify behavioral tendencies in the online environment and will give further studies into the emotive consequences of the social media communication.

1.9. Problem Statement

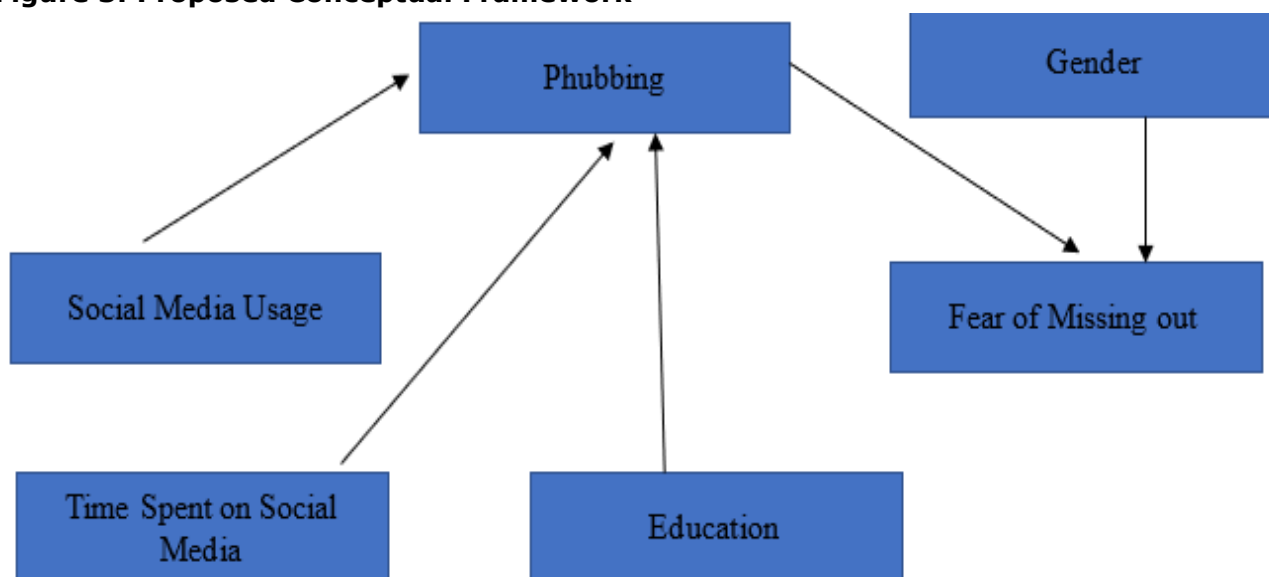
Digital technology has revolutionized the socialization process especially among younger people. Even though the idea of social media platforms was initially aimed at enhancing greater connectivity, the overuse of social media has created new behavioural and emotional problems. Due to sustained connectivity, a large percentage of users are dependent on constant connectivity often at the expense of face-to-face communication. The two noticeable effects of this dependency are the fear of missing out (FoMO) and phubbing. Even though these constructs are conceptual siblings, they have conventionally been researched as different phenomena. Few studies have investigated whether smartphone attentional diversion plays the role of a mediating factor between social media use and the exclusion-relevant anxiety. The current study aims at bridging this gap. It explores phubbing as a possible mediator of the relationship between social media use and FoMO with the aim of clarifying the behavioural process that connects digital use to emotional distress. The results of the presented work can

be used in the efforts to create a more balanced digital involvement and increase more real-life between-people interaction.

2. Theoretical Framework

The study takes two theoretical perspectives that include Self-Determination Theory (SDT) and Uses and Gratifications Theory (UGT). Taken together, these paradigms explain the driving factors and psychological forces that prompt social media use, phubbing, and fear of missing out (FoMO). The Self-Determination Theory (SDT) assumes that the human beings are motivated to fulfil three basic needs that are autonomy, competence, and relatedness (Ryan et al., 2021). When these needs are not fulfilled in real life, people often use social media opportunities to find the connection and the attention. Empirical research has shown that use of social media has the potential of both satisfying and frustrating these needs, depending on how they are used (Wei, Chen, & Liu, 2022). According to Dimmock et al., (2022), on the other hand, an online interaction can increase relatedness; on the other hand, autonomy and emotional stability may decrease. Similarly, Van de Castele et al., (2025) also found that the effect of social media use on well-being is through its effect on need satisfaction. Therefore, people might become phubbers in which all the focus is redirected to smartphones leaving in-person communication. This trend solidifies FoMO in the long run, since users are always bothered about updates on the internet and what they may be missing. The Uses and Gratifications Theory (UGT) revolves around the reasons why people want to consume media in a bid to fulfill certain psychological or social demands. These reasons include entertainment, social acceptance and self-expression. The current empirical studies have validated that the social interaction and self-presentation motives are strong predictors of social media dependency (Zhu & Xiong, 2022). When users repeatedly seek gratification through constant engagement, they may begin to prioritise digital communication over real interactions. This behaviour increases emotional sensitivity to online exclusion and contributes to higher levels of FoMO. (Graciyal & Ranjini) also observed that gratification-seeking behaviour on social platforms encourages patterns that resemble digital dependence. Together, SDT explains the internal needs that drive social media use, while UGT clarifies the external motives that sustain it. Both frameworks suggest that frequent social media use can promote phubbing, which subsequently heightens the fear of missing out.

Figure 3: Proposed Conceptual Framework



2.1. Research Objectives

1. To explore association of social media usage, fear of missing out and phubbing behavior.
2. To examine the prevalence of phubbing behavior in adults.
3. To assess whether phubbing mediates the relationship between social media use and fear of missing out.

2.2. Hypotheses of the Study

H1: Social media usage is significantly associated with both fear of missing out (FoMO) and phubbing behavior among young adults.

H2: Social media usage and FoMO significantly predict phubbing behavior among young adults.

H3: There is a statistically significant difference in FoMO scores between male and female participants.

H4: Phubbing behavior significantly mediates the relationship between social media usage and FoMO.

3. Methodology

3.1. Research Design

This study utilized a quantitative, cross-sectional research design to examine the associations among variables. A cross-sectional study allows the information to be obtained from the subjects at a specific time. Additionally, this design is appropriate for examining relationships among variables without affecting participants behaviors or environments (Maier et al., 2023).

3.2. Population and Sample

The study participants consisted of 18–35-year-old young adults located in Rawalpindi Pakistan. This research identified participants who use Facebook, Instagram, Twitter and TikTok on a regular basis as its subject pool. Rawalpindi stands out as an essential choice because it functions as one of Pakistan's leading metropolitan areas. Rawalpindi demonstrates significant economic and educational as well as digital behavior variability among its residents. The researchers determined the sample size through GPower version 3.1.9.7 for correlational and t-test testing with regression mediation analysis. The calculation indicated that 77 participants would be needed for regression analysis using three predictors based on an effect size of $f^2 = 0.15$ and $\alpha = 0.05$ and power = 0.80. According to Fritz and MacKinnon (2007) the minimum requirement for detecting indirect effects expands the necessary participant count to 115–150. (Gürbüz & Bayik, 2021). The study obtained its findings from 300 research participants to boost both reliability and generalizability of results.

3.3. Sampling Technique

Convenience sampling method was used to select the participants. This method made it possible to select participants who were easily reached and met the inclusion criteria. Although this method restricts generalizability. However, it was appropriate for the nature and objectives of the current study (Stratton, 2021).

3.4. Inclusion and Exclusion Criteria

Participants selected for the study were adults aged 18–35 years. Inclusion required daily social media usage of at least two hours, regular smartphone ownership, and voluntary consent to participate. Individuals younger than 18 or older than 35 years, those with infrequent social media engagement (less than two hours daily), individuals diagnosed with clinical psychiatric disorders (such as anxiety or depression), and those unwilling or unable to provide informed consent were excluded. These criteria ensured the selection of participants most relevant to the research objectives to enhance the validity and reliability of the findings.

3.5. Instruments

The demographic sheet and the three standardized self-report measures were used to gather the data. The information about the age, gender, educational level, occupation, marital status, hours used daily on the social media platform, types of social media platforms used, family structure (joint/nuclear), time of owning a smartphone, and the type of device used to access the social media were obtained using the Demographic Sheet. Bitar et al., (2023) have created the Social Media Usage Scale that was used to measure the intensity and frequency of the engagement of the participants with digital platforms. It is a 22-item test that is rated on a 5-point Likert approach, with 1 (strongly disagree) to 5 (strongly agree). The scale had good internal consistency in the current research with a Cronbachs alpha of (α) .803, hence its relevance in assessing the digital usage behaviours. The Generic Scale of Phubbing (GSP) developed by (Chotpitayasunondh & Douglas, 2018) was used to measure phubbing behaviour. This scale measures how much people value the use of phones more than face to face communication. With a Likert scale ranging between 5 points, the GSP showed a good

psychometric performance in the present sample ($\alpha = .834$) which makes it a suitable tool in the measurement of device-distraction. The Fear of Missing out Scale is a 10-item scale created by Przybylski et al. (2013) to reflect the level of anxiety people have about being left out of their lives. The participants answered using a 5-point Likert scale, where greater scores were associated with stronger FoMO. In this study, the scale has an adequate level of internal consistency ($\alpha = .742$), which contributes to its use as a psychological instrument in social connectivity studies.

3.6. Data Collection Procedure

The respondents were selected using various methods and these included local universities, community networks and work places in Rawalpindi. Invitations to participation expressly stated the aims of the study, guarantees of confidentiality, voluntary participation, and participant rights. Those participants who passed the inclusion criterion were provided with online survey questionnaire through the use of Google Forms. First, the respondents were given an electronic informed consent form which outlined the objectives of the study and the confidentiality measures. After giving consent, the participants then supplied demographic data then completed the standardized survey instruments. The survey was going to take about 15-20 minutes to answer and clear instructions were given to ensure that the respondents were able to answer it. The period of data collection was four weeks. Data collected were then safely exported into the SPSS (version 29) where the analytical processing was done.

4. Results and Findings

Table 1: Frequency of Demographics of Respondents (N=300)

Variable	N	%
Gender		
Male	156	52.0
Female	144	48.0
Age Group		
18–23 years	116	38.7
24–29 years	107	35.7
30–35 years	77	25.7
Educational Level		
Undergraduate	111	37.0
Graduate	127	42.3
Postgraduate	46	15.3
Others	16	5.3
Occupation		
Student	130	43.3
Employed	115	38.3
Self-employed	31	10.3
Unemployed/Part-time Workers	24	8.0
Marital Status		
Single	183	61.0
Married	117	39.0
Family System		
Joint	161	53.7
Nuclear	139	46.3
Daily Social Media Usage		
2–4 hours	111	37.0
5–7 hours	113	37.7
8+ hours	76	25.3
Preferred Device		
Smartphone	254	84.7
Tablet/PC	46	15.3
Social Media Platforms Used		
Facebook	90	30.0
Instagram	76	25.3
Twitter	49	13.3
TikTok	70	23.3
Multiple Platforms	24	8.0

Note. N= frequency; % = percentage

Above table shows the demographics of respondents used in study

Table 2: Psychometric properties of scale (N=300)

Variable	M	SD	κ	α
The Social Media Usage Scale	62.76	12.07	22	0.803
The Generic Scale of Phubbing	41.00	11.15	15	0.834
The Fear of Missing Out Scale	22.95	6.19	10	0.742

Note. SD = Standard Deviation, M= Mean, α = Cronbach's Alpha Reliability, κ = No. of Items

Table 2 displays all three scales demonstrated acceptable to good reliability ($\alpha > .70$). It confirmed that the instruments used were psychometrically sound and suitable for further inferential analysis within this study's population.

Table 3: Descriptive Statistics and Correlations between FOMO, Phubbing Behavior, and Social Media Usage

Variable	M	SD	1	2	3
1. Fear of Missing Out	2.396	0.617	—		
2. Phubbing	2.734	0.741	.493**	—	
3. Social Media Usage	2.853	0.549	.357**	.589**	—

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

Table 3 presents the descriptive statistics and Pearson correlation for all three study variables. FoMO was positively correlated with phubbing ($r = .493$, $p < .01$) and social media usage ($r = .357$, $p < .01$). Phubbing was also positively correlated with social media usage ($r = .589$, $p < .01$).

Table 4: Independent sample t-test between gender of students and fear of missing out

Variable	Male (156)		Female (144)		t(300)	p	Cohen's d
	M	SD	M	SD			
Fear of Missing Out	2.4160	.6378	2.3750	.5947	.575	.178	.61726

Table 4 shows independent sample *t*-test results to assess fear of missing out (FoMO) between male and female respondents. Male respondents ($M = 2.39$, $SD = 0.62$) reported slightly higher FoMO than female respondents ($M = 2.37$, $SD = 0.60$). However, this difference was not statistically significant, $t(300) = .575$, $p = .178$. The effect size was moderate (Cohen's $d = 0.61$).

Table 5: Hierarchical Regression Analysis Predicting Phubbing from FOMO and Social Media Usage

Variable	B	SE B	β	t	p	R ²	ΔR^2
Model 1						0.243	—
(Constant)	1.315	0.15	—	8.771	<.001		
FOMO	0.592	0.061	0.493	9.773	<.001		
Model 2						0.438	0.195
(Constant)	-0.023	0.185	—	-0.123	0.902		
FOMO	0.389	0.056	0.324	6.959	<.001		
Social Media Usage	0.639	0.063	0.473	10.162	<.001		

Note. N = 300. SE B = Standard error of B; β = Standardized beta coefficient. B = Unstandardized coefficient; $p < .001$ for all predictors in both models.

Table 5 presents a hierarchical regression analysis predicting phubbing behavior. In Model 1, fear of missing out significantly predicted phubbing, $B = 0.59$, $SE = 0.06$, $\beta = 0.49$, $t = 9.77$, $p < .001$, accounting for 24.3% of the variance ($R^2 = .24$). In Model 2, the addition of social media usage significantly improved the model, $\Delta R^2 = .20$, with the total variance explained increasing to 43.8% ($R^2 = .44$). FoMO and social media usage were significant predictors of phubbing.

The mediation analysis was conducted to examine whether phubbing acts as a mediator in the relationship between Fear of Missing Out (FoMO) and Social Media Usage. In Model 1, FoMO was entered as a predictor of phubbing. The results revealed a significant direct effect ($B = 0.592$, $SE = 0.061$, $\beta = 0.493$, $p < .001$). Moreover, these findings indicate that individuals

with higher levels of exclusion-related anxiety were more likely to engage in phone-based disengagement during interpersonal situations.

Table 6: Mediation Analysis of the Effect of Social Media Usage on Fear of Missing Out Through Phubbing (N = 300)

Path	Predictor (X)	Mediator (M)	Outcome (Y)	B	β	SE	t	p	95% CI (LL, UL)
a	Social Media	—	Phubbing	0.795	0.588	0.063	12.57	<.001	[0.6707, 0.9197]
b	Phubbing	—	FoMO	0.360	0.467	0.051	6.96	<.001	[0.2582, 0.4619]
c'	Social Media	Phubbing	FoMO	0.114	0.134	0.069	1.64	0.102	[-0.0231, 0.2521]
ab	Social Media → Phubbing → FoMO	—	—	0.286	—	0.054	—	—	[0.1831, 0.3985]*

Note. B = unstandardized regression coefficient; β = standardized regression coefficient; SE = standard error; CI = confidence interval; The indirect effect was estimated using 5,000 bootstrap samples. * $p < .05$. Indirect effect is significant as the 95% CI does not include zero.

This model explained 24.3% of the variance in phubbing behavior ($R^2 = 0.243$) which suggests a moderate effect. In Model 2, Social Media Usage was added to examine its additional effect on phubbing, alongside FoMO. Both predictors were statistically significant, with Social Media Usage showing a stronger unique effect ($B = 0.639$, $SE = 0.063$, $\beta = 0.473$, $p < .001$) than FoMO ($B = 0.389$, $SE = 0.056$, $\beta = 0.324$, $p < .001$). The inclusion of Social Media Usage increased the model's explanatory power to 43.8% ($R^2 = 0.438$) which reflects a ΔR^2 of 0.195.

Table 6: Multivariate Analysis of Variance (MANOVA) for the Effects of Daily Social Media Usage, Age, and Education on FOMO, Phubbing, and Social Media Usage

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	FOMO	8.848 ^a	12	.737	1.810	.046
	Phubbing	8.329 ^b	12	.694	1.278	.231
	Social_Media_Usage	3.013 ^c	12	.251	.829	.621
Intercept	FOMO	204.194	1	204.194	501.191	<.001
	Phubbing	247.821	1	247.821	456.408	<.001
	Social_Media_Usage	277.887	1	277.887	917.307	<.001
Daily_Social_Media_Usage	FOMO	1.464	1	1.464	3.594	.059
	Phubbing	.538	1	.538	.992	.320
	Social_Media_Usage	.511	1	.511	1.687	.195
Age	FOMO	1.148	2	.574	1.409	.246
	Phubbing	.349	2	.175	.321	.725
	Social_Media_Usage	.809	2	.404	1.335	.265
Education	FOMO	4.636	3	1.545	3.793	.011
	Phubbing	4.330	3	1.443	2.658	.049
	Social_Media_Usage	.172	3	.057	.190	.903
Age * Education	FOMO	3.093	6	.515	1.265	.273
	Phubbing	2.154	6	.359	.661	.681
	Social_Media_Usage	1.179	6	.197	.649	.691
Error	FOMO	116.928	287	.407		
	Phubbing	155.836	287	.543		
	Social_Media_Usage	86.943	287	.303		
Total	FOMO	2053.036	300			
	Phubbing	2405.862	300			
	Social_Media_Usage	2531.372	300			
Corrected Total	FOMO	125.777	299			
	Phubbing	164.164	299			
	Social_Media_Usage	89.956	299			

a. R Squared = .070 (Adjusted R Squared = .031)

b. R Squared = .051 (Adjusted R Squared = .011)

c. R Squared = .033 (Adjusted R Squared = -.007)

A multivariate analysis of variance (MANOVA) was conducted to examine the effects of daily social media usage, age, and education on FOMO, Phubbing, and Social Media Usage. The overall model was significant for FOMO, $F(12, 287) = 1.810$, $p = .046$ that indicates the combination of predictors influenced participants' fear of missing out. However, the models for Phubbing and Social Media Usage were not statistically significant. Among the independent variables, education had a significant effect on both FOMO, $F(3, 287) = 3.793$, $p = .011$, and Phubbing, $F(3, 287) = 2.658$, $p = .049$. It suggests that individuals with different educational levels differed in these outcomes. Daily social media usage had a marginal effect on FOMO ($p = .059$), but not on Phubbing or Social Media Usage. Age and the interaction of Age $\times$ Education did not significantly influence any dependent variable. The model explained 7% of variance in FOMO, 5% in Phubbing, and 3% in Social Media Usage. Furthermore, it indicated small effect sizes. These findings suggest that educational background plays a role in shaping emotional

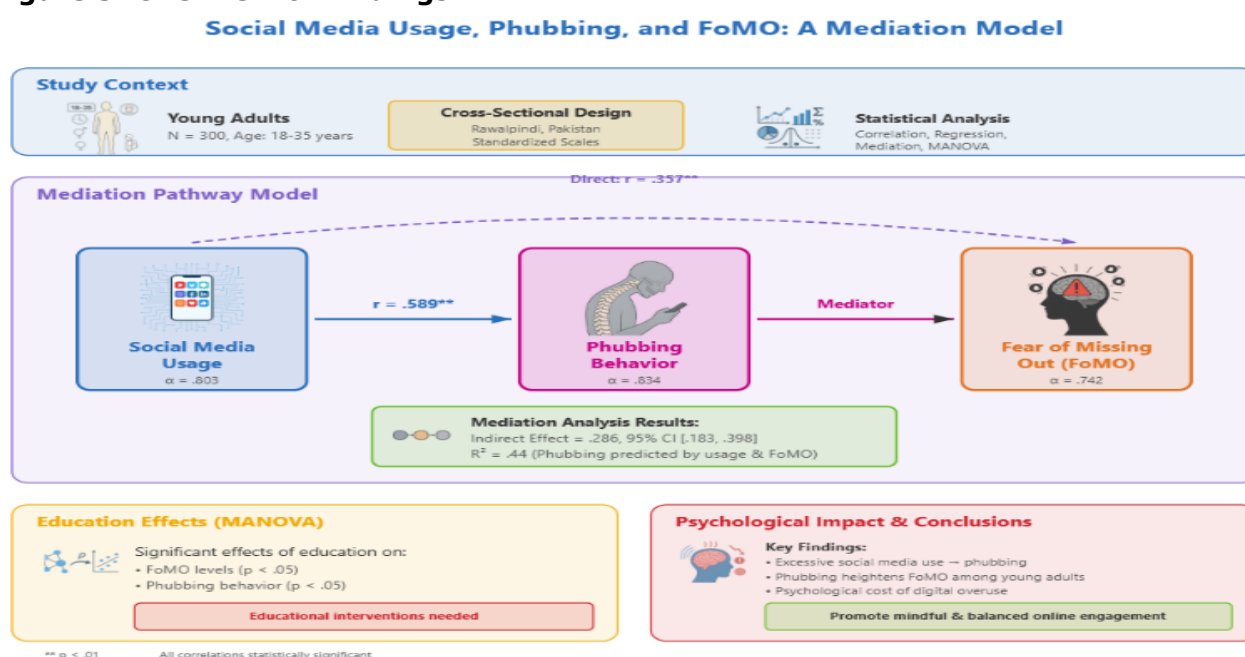
and behavioral responses to social media, whereas age and usage frequency show limited impact.

5. Discussion

5.1. Overview of Findings

The present study explored the effect of social media use on the fear of missing out (FoMO) in young adults in Pakistan and proposed phubbing as the mediating variable. The findings showed that there was a positive relationship between social media use, phubbing, and FoMO. As a result, participants reporting higher intensive social media usage displayed high levels of FoMO and showed a tendency of paying little attention to face-to-face interactions and instead focusing on the digital devices. Furthermore, the mediation of phubbing was significantly pronounced, which justifies it as an effector of behavior between the online dependency and the emotional vulnerability. Lastly, gaps in gender were insignificant, but the level of education proved to be a relevant predictor of such actions.

Figure 3: Overview of Findings



5.2. Interpretation of Hypotheses

H1: Association Among Social Media Usage, Phubbing, and FoMO

The first hypothesis was that the use of social media, phubbing, and Fear of Missing Out (FoMO) have a significant relationship. This hypothesis was fully supported. The data reveal that the high level of involvement in the social-media activities is highly correlated with enhanced behavior of being distracted by the devices and anxiety about being left out of the online experience. It is possible to analyze this relation in the context of Uses and Gratifications Theory (UGT) that implies that people use media to fulfill such psychological needs as belonging, entertainment, and self-presentation. However, when these gratifications are overdone, they can transform into the dependency state, thus leading to FoMO and phubbing. Self-Determination theory (SDT) also describes this connection by hypothesizing that needs relatedness and competence that are not met encourage people to form social connections via digital means. In the long term, though, the emotional stability is silted down to nothing by continued reliance on a digital platform, and autonomy is reduced. As a result, the current results contribute to the existing literature by proving that the original motives of social satisfaction may gradually shift to an emotionally exhausting loop of online self-affirmation and pre-occupation.

H2: Predictive Role of Social Media Usage and FoMO on Phubbing

The hypothesis that postulated that social-media consumption and fear of missing out (FoMO) had relationships with phubbing behavior was found to be empirically supported by the second hypothesis. The findings suggest that emotional anxiety and online interaction are co-controlling factors that foster device-oriented behaviours that interfere with interpersonal presence. As it has been mentioned before, phubbing is understood as a behavioural expression of psychological addiction to social media (Lee et al. 2025). People, who develop the constant fear of rejection, will tend to watch their machines even in the case of a face-to-face communication, thus creating a new cycle of social isolation. This trend can be viewed as a vicious cycle: emotional dependence (FoMO) strengthens more use, and more use strengthens phubbing habits. In the Self-Determination Theory, the dynamics can be interpreted as the loss of autonomy as the users are not motivated to do anything, but to use it online. In Uses and Gratifications Theory, users turn to social sites again and again to fulfill their unmet emotional needs, which in its turn enhances the behavior and the insular drive itself. In turn, the predictive relationship emphasizes the issue of technological convenience transformed into psychological compulsion.

H3: Gender Differences in FoMO

The third hypothesis tested gender dissimilarity in FoMO. Though men were said to have slightly higher FoMO scores, the difference was insignificant. These results indicate that FoMO is a cross-gender mental phenomenon, which is influenced more by personal patterns of use and personal factors related to personality than by gender. The same findings have been reported by (McBride, 2021) who argued that FoMO is a result of ubiquitous digital influences and not genderized behavior. Besides, the absence of gender differences may indicate a socio-cultural convergence in Pakistan, where the access to digital devices and social networks of both male and female young adults is similar. Thus, the digital anxiety and the Internet effect seem to obliterate traditional gender roles. In this regard, behavioral management and emotion regulation interventions should be incorporated into awareness programs and counseling interventions rather than gender-specific interventions.

H4: Mediating Role of Phubbing Between Social Media Usage and FoMO

The fourth hypothesis examined the role of phubbing in the relationship that exists between social media use and FoMO. The hypothesis was approved which showed that phubbing is a behavioral mediator between online activity and affective anxiety. Simply put, the more people spend time on social sites, the more they become prone to FoMO due to the tendency to resort to phubbing in face-to-face communication, which further confirms that phubbing is not only one of the consequences of the excessive use of devices but also a process that perpetuates emotional addiction. This interpretation is supported by previously conducted research (Li et al., 2023), as such, phubbing has the negative impact on face-to-face relationships, eroded empathy, and cultivated feelings of insecurity. The frustration of relatedness needs can also be viewed as the reason behind this mediation in the Self-Determination Theory context; the users are digitally connected but emotionally detached in real-life places. Application of the Uses and Gratifications Theory continues to shed light on the fact that constant satisfaction brought by online interactions contributes to the repetitiveness of checking. This phenomenon further enables the FoMO to continue. This mediation emphasizes that emotional health in the digital era is determined by how much social media is used, as well as how mindful the relationship in the offline world is handled.

5.3. MANOVA Interpretation for role of other Factors

The multivariate analysis showed that educational level affected FoMO and phubbing significantly, age and daily use of social media showed a weak impact. This observation indicates that those with a high level of education might use digital communication more, especially in an academic or professional context, which will inevitably increase FoMO and attention fragmentation. Therefore, it seems that education helps raise cognitive awareness but does not contribute to emotional regulation in the situation of digital interaction. Moreover, there is no substantial age impact among the 18-35 age brackets suggesting that there is a generational normalization of social media habits, and young adults in early and late adulthood are similar in terms of their digital practices. It is observed that interventions should be implemented with behavioral awareness concern educational strata as opposed to the sole concern with age differences.

5.4. Theoretical Implications

The integrative framework of the Self-Determination Theory (SDT) and Uses and Gratifications Theory (UGT) adopted in this research offer an inclusive perspective through which the interaction between psychological needs and motives of gratification that influence digital behaviour can be viewed. SDT predicts in-house motivation towards relatedness, competence, and autonomy; in cases of inability to fulfill these needs, people are likely to seek legitimization of the online platform. However, this dependency may be contradictory and distort emotional balance. Contrastingly, the UGT clarifies that people willingly use social media to satisfy their needs that include entertainment, socialization, and identity formation. The deliberate use of technology can turn into a compulsive behavior thus continuing such phenomena as Fear of Missing Out (FoMO) and phubbing. In its turn, this evidence suggests that emotional phenomena like FoMO do not occur as a vacuum but, instead, are integrated into larger motivational loops where they are accompanied by the need to seek connection, and recognition. The two-theory model presented herein is an additional worthwhile input to the growing research in the field of digital psychology which correlates intrinsic motivations with extrinsic behavioural expressions.

5.5. Practical Implications

The implications of the findings made in this paper have various impacts in the real world. These results enhance online well-being and avoid the emergence of social alienation of devices. First of all, these results underscore the need to treat FoMO and phubbing as new behavioural problems that must be related to excess consumption of social media by mental health practitioners. Moreover, experts can fight compulsive connectivity by including counseling modules that allow one to be more mindful, emotionally stable, and have a positive balance between online and their non-internet life. In addition, the methods through which cycles of social validation and comparison lead to anxiety and strain in relationships should be made known to the youths in educational programmes. Moreover, schools can use these findings to develop media-literacy classes that can help create a critical perception of online behaviour. Additionally, colleges and universities may initiate workshops that will urge students to limit screen time, minimize multitasking, and focus on face-to-face interaction in the learning process. Educators can also be role modellers of desirable behaviours by creating phone free learning settings that can promote concentration and communication.

Furthermore, the positive effects of the policies that provide guidelines of digital etiquette to prevent phubbing during a meeting or a working group are beneficial to workplaces and organisations. It can enhance concentration, collaborative teamwork and professional relationship by promoting phone-free conversations and relaxed tech-breaks. Lastly, the interventions at the level of the population are also necessary. Responsible use of social-media can be promoted by policymakers, community leaders and media campaigns, through emphasizing the psychological dangers of being always connected. Mindful digital behaviour can be normalised through community awareness, and discussions in the family. Together, these measures can assist societies to develop balanced digital practices where technology does not interrupt human contact and but augers well with it.

5.6. Limitations of Study

This study has its limitations, despite the contributions. To begin with, the cross-sectional nature of the study eliminates the possibility of establishing a causal relationship between variables. Second, the use of self-report questionnaires presents possible bias on responses like social desirability and the over-/under-reporting of digital behaviors. Third, the sample was restricted to one urban centre- Rawalpindi and therefore it restricts generalisation of the results to other areas or rural populations in Pakistan. Lastly, contextual variables, e.g. socioeconomic status, personality type and cultural attitudes towards technology were not addressed, variables that could have affected the findings.

5.7. Future Research Directions

Continuing on these limitations, the prospective studies may adopt experimental design to observe the effects of the change in the social-media use over time on FoMO and phubbing. Cross-cultural comparisons might also be an interesting subject to study to find out whether the behavioural patterns are different or not in different societies with different degrees of digital penetration. In addition, it might help include qualitative techniques, including interviews

or focus groups, which would help learn more about the lived experience of digital dependency and social disconnection in users. Other variables that may be considered by researchers include personality traits, self-esteem, emotional intelligence and coping mechanisms to get a more holistic picture of digital behaviour. Finally, future research would consider the usefulness of intervention programmes to decrease FoMO and phubbing in young adults, e.g., digital detox workshops or mindfulness training.

6. Conclusion

To sum up, research results show that phubbing is a considerable association between social media use and fear of missing out (FoMO). The intensive use of social networking sites increases the emotional reliance and create attentional fragmentation, which leads to the destruction of interpersonal presence. The combination of Self-Determination Theory and Uses and Gratifications Theory provide a whole perspective that can explain the connection between intrinsic psychological needs and extrinsic motivations that define the digital behaviors. All in all, these results highlight the need to develop intentional online habits to protect emotional health and maintain the face-to-face human interaction in the age of incessant connectivity.

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