

Disengaged in the Digital Age: Unraveling the Influence of Boredom Proneness and FoMO on Phubbing Behavior

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Abstract

The increased usage of digital technology, especially smartphones has resulted in emerging behaviors such as phubbing- the preference of using phones rather than face to face interaction and psychological experience such as boredom proneness and fear of missing out (FoMO). The factors are related to aversive consequences for emotional well-being and social relationships. This study aimed at investigating the relationships existing among boredom proneness, FoMO, and phubbing behavior among university students and whether gender moderates their relationship or not. The sample taken in the study was purposive and consisted of 150 university students (75 males and 75 females) with the age range between 18 and 34. Participants responded to self-report measures, such as the Short Boredom Proneness Scale (SBPS), the Fear of Missing Out Scale (FoMO-S), and the Generic Scale of Phubbing (GSP). Descriptive statistics, t-tests, Pearson correlations, multiple regression analyses were applied. Results showed a significant positive relationship between boredom proneness and FoMO and phubbing. Both the boredom proneness and the FoMO were significant predictors of the phubbing behavior. In addition, there was more phubbing behavior reported by the females, as compared to the males and the relationships between the psychological factors and phubbing were stronger among females. These results indicate that it may be helpful to counter boredom and FoMO to minimize phubbing behavior and enhance healthier face-to-face interaction in social life.

Keywords: Phubbing, FoMO, Boredom Proneness, Gender Differences

Introduction

Today's digitally connected world has made smartphones and social media important tools of communication, entertainment and the sharing of information. Their daily use has made a great impact on the way people communicate with themselves, especially among the younger generations known as digital natives (Anderson & Jiang, 2018). Technology has made communication instantaneous and global, but it has also motivated serious concerns regarding what impact it could have on live-time social interaction and mental health. More academics question whether it is better for one to use digital devices to improve connectivity or destroy deep in-person ties (Uhls et al., 2017). Mobile penetration passes the world's population of 8.6 billion with many subscriptions for an individual (International Telecommunication Union, 2023). In Pakistan, there are 190 million registered mobile phone subscribers, which account for more than 78% of its population (Pakistan Telecommunication Authority, 2024).

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Boredom Proneness

Boredom proneness is a well-established personality construct defined by the tendency to express boredom across a wide range of circumstances that is characteristic for any given individual. Much fear of boredom, a prime symptom of boredom proneness (Farmer & Sundberg 1986), is experienced by those who possess such a general disposition including lack of stimulation or interests, irrespective of situation. Using this to further explain, LePera (2011) defined it as a dispositional trait that makes individuals, by nature, find their environments as repetitive, dull or boring even if they are able to meaningfully interact because they lack the capacity to sustain attention or emotional involvement.

Based on a cognitive perspective, Eastwood et al. (2012) emphasized that boredom is occurring when individuals are unable to bring their attention to bear or make sense of their contemporary doings and revealed the internal attentional roots of the phenomenon. Vodanovich (2003) also expanded that people high in boredom proneness frequently seek out novelty and extreme excitement and are prone to disinterest or restlessness in situations that fail to provide intensity close to their threshold for excitement. These definitions demonstrate boredom proneness as a multi-dimensional construct across attentional capacity, emotional regulation, and personality-based needs for stimulation.

Al-Saggaf et al. (2018) demonstrated that trait boredom predicts the frequency of phubbing significantly, even while regulating age and region. In the research of Liang et al. (2022) FoMO and boredom proneness are found to mediate the relationship between psychological distress and Internet addiction among youth.

According to Nagar (2024), people high in FoMO and boredom proneness, are more addicted to phubbing, which, in its turn, creates a positive attitude toward life satisfaction, and works as a mediator. Ding and Si (2024) indicated that Chinese vocational college students exhibited more phubbing behavior because of high boredom and FoMO levels, thus these traits should be intervened first.

According to Letchumyesswary and Gunashekaran (2022), Malaysian students viewed another's phone use while they were present, and boredom, depression, and loneliness positively predicted phubbing while self-esteem negatively predicted phubbing.

Fear of Missing Out FoMO

The ability to worry about friends and their possessions that are deemed superior is known as "fear of missing out," or FoMO. This can lead to emotional distress, anxiety about whether others are enjoying themselves while engaging in meaningful activities, and the desire to continue engaging in activities with friends (Przybylski et al., 2013).

FoMO is the term used to describe societal pressure brought on by social media. People will consequently be unable to learn about new information or activities that their friends are engaging in, which ultimately causes anxiety (Aydin, 2022). According to Hikmah et al. (2023), people who suffer from FoMO are said to require recent environmental updates or notifications. Arya (2023) aimed to explore the impact of Fear of Missing Out (FoMO) and Problematic Mobile Phone Use (PMPU) on phubbing behavior, finding significant correlations between both FoMO and PMPU with phubbing. PMPU was identified as a significant predictor of phubbing. Gibbs (2012) conducted a survey across eight nations, discovering that a substantial portion of participants checked their phones frequently due to the fear of missing something better. This behavior was driven by an ingrained need to stay connected, even in unsafe situations such as while driving.

Turkle (2008) observed that the constant need to be connected can lead individuals to use smartphones in dangerous situations, reflecting the strong influence of digital connectivity on behavior. Li et al. (2021) explored the relationship between perceived social norms and phubbing among 927 college students, concluding that individual control and FoMO mediate the relationship between social norms and phubbing behavior. Ang et al. (2019) investigated the predictors of phubbing among Malaysian undergraduate students and found that loneliness and FoMO significantly predicted phubbing, with FoMO being a stronger predictor. The findings highlight the importance of intervention efforts to address addiction and associated health issues.

Chotpitayasunondh and Douglas (2016) demonstrated that among young girls, higher levels of FoMO were linked to frequent use of social networking sites like Facebook, Instagram, Snapchat, and YouTube. Elhai et al. (2016) further confirmed that FoMO plays a role in predicting improper use of social networks. Martin et al. (2018) highlighted that individuals with FoMO feel its effects regardless of their busy schedules or occupations.

Alutaybi et al. (2020) suggested that individuals with attention-deprivation experience FoMO cues due to their strong desire to connect with others but being unable to do so. Wegmann et al. (2017) concluded that FoMO stems from negative cognitive expectations, which can lead to problematic internet use. Younas et al. (2022) found that social media addiction acted as a mediating variable between phubbing and FoMO in young adults, with both constructs positively contributing to phubbing behavior.

Phubbing

A rising culture, in which people would rather look at their phones than direct contact with other people during face-to-face conversations is represented as “phubbing” by Roberts & David, (2016). Levels of communication quality, and overall relational satisfaction have declined since phubbing has become novel and is part of the normal interaction (Ardyan & Sanapang, 2023). There has only been limited but growing research undertaken in two separate areas of phubbing. Briefly, earlier on, the examined population’s overall quality of life, and relationship satisfaction respectively reduction because of phubbing (Garrido et al., 2024).

It has been found that the identified phubbers would presumably use their smartphones. 221 times on average each day (Tecmark, 2014), phubber is a label used to describe people who phub’ (Hanika, 2015). Drivers have a handheld phone in reach for half of them. and touch it whether it rings or vibrates or not (Pinchot et al. 2011).

Quantitative study in Multan, Pakistan, suggests a positive correlation between millennials, loneliness, FOMO and phubbing. It decided that FOMO has a greater effect on phubbing than loneliness, where males follow low phubbing behavior with their lower loneliness scores. The study also discovered that there is a gap in Pakistan that phubbing research does not differ from gender (Yaseen et al., 2021).

Besides, Akat et al. (2022) examined FoMO as a context for moderating phubbing and dark triad personality traits of university students: FoMO acts as an intermediary for the relationship, which it indirectly influences. Franchina et al. (2018) study with 2663 Flemish teenagers found that FoMO predicts social media usage and phubbing behavior, and in particular from private platforms.

Through same mechanisms of the study, Kurniawati and Prawita (2023) discovered a positive correlation between FoMO and phubbing among college students in Indonesia, thus the need to reduce FoMO is found as a strategy to reduce the risk of phubbing. Similarly, Sandjaja and

Syahputra (2019) discovered that FOMO accounted for 35.2% of phubbing variance in behavior at research involving 1534 students from high school.

Rationale

Smartphones were part and parcel of communication and learning in the digital era, the youths especially. But this dependence that promoted use of phones also resulted into “phubbing” to disregard people physically present studying a phone (Roberts & David, 2016). Phubbing was shown to be affected by the psychological aspects of boredom proneness and Fear of Missing Out (FoMO) (Wegmann et al., 2017, Elhai et al., 2016). Boredom driven people usually looked to their phones for stimulation, while high FoMO people remained connected at all times, ignoring face to face interaction (Przybylski et al., 2013). Although findings from the world may be different, research on the said factors was under investigation in multicultural environments. This study sought to answer the question of how boredom proneness and FoMO influenced phubbing of university students in Balochistan. The problem of negative effects on emotional health and face-to face interaction was aggravated as the use of mobile phones increased (Franchina et al., 2018). Research findings intended to provide insight into awareness programs and interventions for healthy phone habits and personal, offline connections (Younas et al., 2022; Akat et al., 2022).

Methodology

A non-probability purposive sampling procedure of 150 university students aged 18 to 34 years ($M = 25.87$, $SD = 5.08$) (75 women, 75 men) was adopted. Data was collected using online self-report questionnaires after receiving institutional approval and permission to utilize relevant assessment measures. Participants received the outline of the study and gave informed consent on their own initiative. Participants subsequently completed a sociodemographic information form and the study-related questionnaires. Throughout the research process, confidentiality and anonymity were retained according to APA ethical provisions. All analyses were performed in SPSS program version 21.

Assessment Measures

Sociodemographic Information Sheet

This form collected data on gender, age, education, marital status, family structure, occupation, locality (rural/urban), smartphone price, and daily social media use.

Short Boredom Proneness Scale (SBPS)

Boredom was measured through the 8-item SBPS using a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). It demonstrated acceptable internal consistency ($\alpha = .70-.85$).

Fear of Missing Out Scale (FoMO-S)

FoMO was measured using the 10-item scale by Przybylski et al. (2013) on a 5-point Likert scale (1 = Not at all true to 5 = Extremely true), with reliability ranging from $\alpha = .87$ to $.90$.

Generic Scale of Phubbing (GSP)

Phubbing behavior was assessed using the 15-item GSP (Chotpitayasunondh & Douglas, 2018), rated on a 7-point Likert scale (1 = Never to 7 = Always). The scale showed high reliability ($\alpha = .93$).

Descriptive statistics of Demographic characteristics

The study was involved a total of 150 university students totaling 75 males (50%) and 75 females (50%) aged within 18–34 years ($M = 25.87$, $SD = 5.08$). The sample consisted of undergraduate (38.0%), graduate (35.3%) and postgraduate (26.7%) students. With reference to the structure of the family, 58.7% belonged to nuclear while 41.3% belonged to joint families. Concerning marital status, 33.3% were single, 34.7% married, 32.0% engaged. The participants represented both urban (56.7 %) and rural (43.3 %) regions. The cost of a smartphone varied from person to person, with 17.3% owning devices for less than PKR 10,000 and 20.7% enjoying devices, worth over PKR 75,000. Social media use daily was between less than 1 hour (26.7%) to more than 9 hours (18.0%) with an average between 2–3 hours ($M = 2.79$, $SD = 1.48$).

Results

Four statistical analyses were carried out in this study. First, a reliability analysis was conducted in order to determine the internal consistency of the scales. An independent samples t-test was then run for testing for differences between males and females. Pearson correlation analysis was used to investigate the relations between phubbing, FoMO, and boredom proneness. Lastly, multiple regression analysis was performed to establish how well FoMO and boredom proneness explain phubbing behavior. The results of these analyses are reported in the next chapter.

Table 1: Descriptive Statistics and Reliability Coefficients for Study Variables (N=150)

Range								
Variables	k	M	SD	Potential Scores	Obtained Scores	α	Skewness	kurtosis
Short Boredom Proneness Scale (SBPs)	8	32.93	4.03	8-40	19-40	.70	-.46	-.06
Fear of Missing Out (FoMO)	10	38.28	6.69	10-50	16-48	.79	-.75	-.06
Generic Scale of Phubbing (GSP)	15	88.12	7.77	15-105	71-105	.71	-0.05	-.84

Note: k = number of items, M =mean, SD =standard deviation, α = Cronbach alpha

All study variables ($N = 150$) were described statistically and had their reliability coefficients calculated. Short Boredom Proneness Scale (SBPS; $k = 8$) 32.93 mean ($SD = 4.03$), scores up to 8 to 40, obtained range 19 to 40. Cronbach's alpha was .70 which means the value was acceptable. Mean on the FoMO scale ($k = 10$) was 38.28 ($SD = 6.69$), possible score 10–50, observed scores 16–48, reliability was good ($\alpha = .79$). The Generic Scale of Phubbing (GSP; $k = 15$) had a mean of 88.12 ($SD = 7.77$) and scores ranged from 71-105 (possible:15-105) with Cronbach's alpha of .71. Skewness and kurtosis of values for all variables were also within acceptable limits, showing normal distribution.

Table 2: Independent Samples t-Test results by Gender (N = 150)

Variable	Men (n=75)		Women (n=75)		$t(148)$	p	95% CI		Cohen's d
	M	SD	M	SD			LL	UL	
Boredom Proneness	29.73	2.85	36.12	1.97	-15.94	.000	-5.60	-7.18	2.61
Fear of Missing Out	33.16	5.44	43.40	2.71	-14.60	.000	-11.63	-8.85	2.38
Phubbing	81.81	4.58	94.43	4.46	-17.09	.000	-14.07	-11.16	2.79

Note: CI=Confidence interval, LL: Lower limit, UL: Upper limit, * $p < .01$, ** $p < .001$

Females scored statistically higher than males in phubbing ($d = 2.79$), FoMO ($d = 2.38$), and boredom proneness ($d = 2.61$). All findings were statistically significant at $p < .001$, reflecting large sized effects and gender differences over the level of variables studied.

Table 3: Pearson Product Moment Correlation between Variables (N=150)

Variable	M	SD	1	2	3
1. Boredom Proneness	32.93	4.03	—		
2. Fear of Missing Out	38.28	6.69	.62**	—	
3. Phubbing	88.12	7.77	.69**	.62**	—

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

The correlation table provides a good correlation (positive) between phubbing, fear of missing out (FoMO) and boredom proneness from a sample of 150 participants. The average score for phubbing was 88.12 ($SD = 7.77$) which reflects an above average level of phubbing. Phubbing had a strong positive correlation relationship with both FoMO ($r = .62$, $p < .01$) and boredom proneness ($r = .66$, $p < .01$) indicating that the more phubbing practice will be, the more likely the individual has FoMO and boredom proneness. Likewise, FoMO positively ($r = .62$, $p < .01$) correlated with boredom proneness suggesting that the number of times one fears missing out is high are likely also to feel bored as well. All correlations were statistically significant at the 0.01 level and showed a strong consistent pattern of association among these three variables.

Table 4: Multiple Linear Regression Analysis (N=150)

95% CI						
Predictors	B	SE	Beta	LL	UL	p
Intercept	42.73	3.60	—	35.65	49.81	.00
Boredom Proneness	.95	.14	.49	0.68	1.22	.00
Fear of Missing Out	.37	.08	.32	0.20	0.53	.00
F	85.53					
R ²	.538					

A multiple linear regression was used to predict phubbing from boredom proneness and FoMO. The outcomes proved that boredom proneness ($B = 0.95$, $p < .001$) and FoMO ($B = 0.37$, $p < .001$) were significant predictors of phubbing. The model accounted for 53.8% of the variance in phubbing ($R^2 = .538$), was statistically significant, $F(2, 147) = 85.53$, $p < .001$.

Discussion

In the current research, the effects of boredom proneness and fear of missing out (FoMO) on explanation of phubbing were examined among young adults, whereby both predictors were found to be significant and working in tandem to explain 53.8% of the variance in phubbing. This is consistent with literature that boredom and FoMO have been a significant drive of phubbing, particularly in this digital age. Based on the Compensatory Internet Use Theory (Kardefelt-Winther, 2014), people can resort to digital devices such as smartphones when dealing with negative feelings or psychological needs like boredom and loneliness – both high drivers of phubbing. A good predictor of phubbing was boredom proneness which had individuals who were high in boredom who were more likely to phub. This result is in line with Al-Saggaf et al.'s (2018)

and Ding and Si's (2024) finding, which mentioned boredom as a crucial predictor. The need to find stimulus or engage in entertainment when bored (Yaseen et al., 2021), also goes along with this path. Based on Uses and Gratifications Theory (Katz et al., 1973), people actively engage smartphones to fulfill their cognitive and affective needs, so boredom is the main reason. The second strong predictor was FoMO, as the higher degree of FoMO was associated with the higher phubbing. This aligns itself with works by Ang et al. (2019), and Franchina et al. (2018) where it indicates that FoMO leads to excessive smartphone use. As, Chotpitayasunondh and Douglas (2016) stated that FoMO propels people, particularly women, to remain online even when they are together face to face. This concurs with Self-Determination Theory (Deci & Ryan, 2000) that suggests that unfulfilled needs towards relatedness and social relation, may result in compulsive behavior such as phubbing to seek social belonging. Gender difference was also seen with females achieving greater scores in terms of both boredom proneness and FoMO than the males. Similarly, Sandjaja and Syahputra's (2019) results mentioned that women may experience more social pressure and exclusion sensations which potentiates increased phubbing. Following the analysis of correlations, strong positive associations were found between phubbing and FoMO and between phubbing and boredom proneness, which means that the higher the level of these traits the more one phubs. According to previous studies (Younas et al., 2022;), regression results indicated the predictive power of boredom proneness and FoMO. Akat et al., 2022; Nagar, 2024). From this, it appears that interventions that target the underlying traits could help moderate phubbing behaviors.

Conclusion

This study explored the relation between boredom proneness, Fear of Missing Out (FoMO) and phubbing behavior in young adults. It shows that both boredom proneness and FoMO are important predictors of phubbing that helps develop a better understanding of digital behavior patterning in today's connected world. The results imply that managing such psychological traits may contribute to reducing phubbing as a result of this, more social interactions and mental quality of life will be achieved. Future research might build upon these insights in diverse populations and over time base out these dynamics more deeply.

Implications

The role of boredom proneness and Fear of Missing Out (FoMO) in causing phubbing behavior among the youth is emphasized in this study. The results show the necessity for interventions to address these psychological aspects to prevent phubbing and its undesirable effects on social relations and in terms of well-being. Educators and professionals in areas of mental health are given the reins to bring awareness and deal with these traits in order to bring healthier behavior to the digital world.

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