

Evaluating the Relationship of FoMO, SNS addiction and Phubbing

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Abstract:

Recent research has identified several risk factors for phubbing behavior. However, limited research has investigated the potential influence of Fear of Missing out FoMO and phubbing on Social networking site addiction (SNS addiction) and little is known about the mediating mechanisms underlying this association. In this study, we investigated the predictive role of Fear of Missing out behavior on university students' phubbingbehaviour and found that both Fear of missing out and SNS addiction were associated with phubbing behaviour. A sample of 301 Indian university students (17-23 years old, M age = 19.6 years, SD = 1.24) reported addiction to Social networking site, Fear of missing out and phubbing behaviour. Results showed that (a) fomo was positively correlated with phubbing behavior; (b)SNS addictionwas positively correlated with Phubbing behavior.These findings have important implications for the prevention and intervention of phubbing behaviour among university students.

Keywords: FoMO, SNS addiction, smartphones, phubbing

1. Introduction

One of the most significant advances in the 21st century is the development of smartphones. Smartphones are considered valuable attachment objects that greatly enhance daily life by facilitating social networking, browsing, and permanent access to the Internet (Wolniewicz et.al,2019). Prior to the advent of smartphones, individuals had privacy compared to today, where it is now commonplace to share daily life updates with others (Holte & Ferraro,2020). Given the prevalence of smartphone use, a myriad of studies have been conducted to evaluate how smartphone use impacts human behavior, such as lack of sleep (Lapointe, Boudreau-Pinsonneault, & Vaghefi, 2013), dangerous driving (Soror, Steelman, & Limayem, 2012), depression (Harwood, Dooley, Scott, & Joiner, 2014) and anxiety (Hartanto & Yang, 2016). Social networking site (SNS) use is considered one of the reasons for smartphone overuse (Salehan & Negahban,2013).As many people become addicted to SNS, and increasing number of people are using smartphones problematically(Chotpitayasunondh & Douglas,2016). Problematic use of smartphones severely impacts the quality of life of users and their peers (Busch & mccarthy,2020). Peers, including family members, friends, and colleagues, report disgraceful snubbing behavior (phubbing)among us who use smartphones problematically (Roberts & David,2016; Roberts & David,2017 and Abeele et.al,2019).

1.1 Research Gap

Researchers have established that phubbing is a consequence of human behavior associated with problematic smartphone use. Concerns about the harmful impacts of phubbing have evoked interest among the scientific community in examining the correlates and consequences of phubbing, especially as it

relates to the problematic use of smartphones. While research examining phubbing has increased sharply in recent years, little is known about phubbing behavior, and how it has become an acceptable or normative feature of modern communication (Chotpitayasunondh & Douglas, 2016).

2. Theoretical Background

2.1 Uses and gratification theory

The present study has its roots in Uses and Gratification Theory (UGT), originally developed by Katz in 1970. The UGT proposes that people have diverse needs and wish to satisfy these needs through the use of specific media such as smartphones. Recent studies have identified smartphones as a prominent medium for obtaining gratification (Al-Saggaf, 2020; Wolniewicz et al., 2018 and Elhai & Contractor, 2018). UGT is relevant in explaining the motivation (such as SNS use) behind people to use smartphones and why they use specific types of smartphone features (Internet) to achieve gratification (Grellhesl & Carter, 2012 and Wei & Lu, 2014). SNS is considered an important platform for staying connected to friends and peers, and UGT suggests that individual users are motivated to stay connected with SNS, because their gratifications and needs are fulfilled by smartphones (Ku, Chu et al., 2013). Given the ubiquitous and portable feature of Internet-connected smartphones, there is uninterrupted SNS usage, resulting in SNS addiction and problematic smartphone use. Individuals' commonly cited motives for addictive use of SNS and smartphones are the negative emotions of FoMO. Within a U&G framework, it was found that negative emotions, such as FoMO and SNS addiction, are predictors of phubbing. As phubbing is considered as behavior representing problematic smartphone (Franchina et al. 2018), it is expected that SNS Addiction and FoMO will impact individual's engagement in phubbing behavior. Thus, according to the UGT, psychopathology-related factors can be conceptualized in motivating phubbing behavior among smartphone users.

2.2 Compensatory internet use theory (CIUT)

UGT has contributed to the evolution of compensatory Internet use theory (CIUT) (Kardefelt-Winther, 2014, Elhai et al., 2017). CIUT conceptualizes negative emotion as a driving factor, and excessive smartphone usage is viewed as an avoidant coping strategy that individuals use to alleviate negative emotions (Elhai & Contractor, 2018). Problematic smartphone usage indicates the experience of negative emotions, such as boredom proneness, fomo, loneliness, etc. (Lepp, Barkley, and Li, 2017). Thus, this theory postulates that phubbing and fomo are associated with SNS addiction.

2.3 Self-Determination theory (SDT)

This study used self-determination theory (SDT) to understand the well-established phenomenon of FoMO, especially in relation to SNS and smartphone usage. The FoMO concept originates in the SDT (Deci & Ryan, 1985; Ryan & Deci, 2000). According to this theory, FoMO is conceptualized as a negative emotional state when an individual's relatedness needs (desire to feel connected to others) are not met (Przybylski et al., 2013). Individuals experiencing FOMO may engage in persistent checking of SNS to avoid missing out on rewarding experiences through their internet-enabled smartphones. This theory is relevant in postulating hypotheses related to FoMO, phubbing and SNS addiction.

3. Hypotheses formulation

3.1 SNS addiction and Phubbing

SNS addiction and phubbing behavior are ubiquitous in today's modern society. Owing to the widespread usage of smartphones, researchers have attempted to investigate the linkage between SNS addiction and phubbing. According to Karadeg et al. (2015), various addictive behaviors such as mobile phone, Internet addiction, SNS addiction, and game addiction play important roles in predicting phubbing behavior. David and Roberts (2017) explained this phubbing behavior as a result of increased SNS usage. Blachnio and Przepiorka (2018) explained that individuals who use SNS excessively (particularly Facebook) are obsessed with their smartphones, subsequently indulging in phubbing behavior. Moreover, Chotpitayasunondh and Douglas (2016) found that Internet addiction predicted phubbing behavior. Given that Internet addiction and SNS addiction both share similar properties as they are related to inappropriate usage of technology, it seems inevitable that people who are addicted to SNS usage will use smartphones excessively and display phubbing behavior. Therefore, based on the above findings and recent studies, addicted SNS users are expected to display phubbing behavior.

H1: SNS addiction is positively related to Phubbing.

3.2 FoMO and Phubbing

Although the concept of phubbing is relatively recent, a limited body of research has highlighted its notable connection with Fear of Missing Out (FoMO). Davey et al. (2018) underscored FoMO as a significant predictor of phubbing in young Indian adults, proposing that the passive utilization of social media mobile apps, such as Facebook and WhatsApp, could contribute to this correlation. Similarly, Franchina et al. (2018) identified FoMO as a precursor to phubbing behavior in adolescents, emphasizing its greater predictive influence on the problematic use of public social media platforms such as Facebook than private platforms such as Twitter. Balta et al. (2020) stressed the critical necessity for empirical investigation of the association between FoMO and phubbing, positing that phubbing may arise as a coping mechanism in response to FoMO.

Building on these findings, we posit that FoMO may induce anxiety in individuals, leading them to engage in phubbing as a coping strategy. While existing studies have predominantly explored FoMO and phubbing in adolescents and young adults, we propose that this association extends to university students who, in contemporary universities, increasingly resort to social media and smartphones during study time. This proposition aligns with prior research that views FoMO as a stimulus that prompts individuals to seek socially inclusive experiences (Lai et al., 2016). We anticipate that employees experiencing FoMO may turn to their smartphones regularly for personal reasons to alleviate FoMO-related anxiety. Based on this discussion, we propose the following hypothesis:

H2: FoMO is positively related to Phubbing.

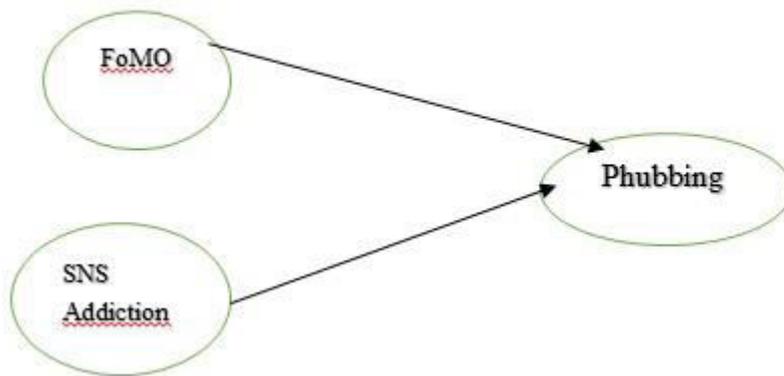


Figure 1 : Proposed Research Model

4. Research Methodology

4.1 Sample and data collection

The sample selected for this study comprised young consumers who displayed heightened usage of and familiarity with contemporary technology, as well as ownership of smartphones that exceeded that of the older generation. Of the 301 questionnaires that were disbursed through both offline and online channels, 298 valid responses were obtained. The age range of the respondents was between 21 and 24 years, with a mean age of 21.53 years and a standard deviation of 1.62. Female participants constituted 55.4% of the sample. The sole criterion for inclusion in this study was smartphone possession. All participants willingly and anonymously provided informed consent to participate in the study.

4.2 Measurement

The current investigation encompassed four distinct scales corresponding to constructs that were altered in accordance with the requirements of the study. The Fear of Missing Out (FoMO) scale (Przybylski et al., 2013) originally comprised 10 items, but only nine items were utilized in accordance with the study's specifications. The Phubbing Scale, developed by Karadeg et al. (2015), consists of 10 items. The Bergen Facebook Addiction Scale consists of six items developed by Andreassen et al. (2012). All items were evaluated on a five-point Likert-type scale ranging from '1 (=strongly disagree)' to '5 (=strongly agree)'.

5. Data analysis and results

To examine the research hypotheses, this study conducted an analysis using partial least squares (PLS) in smartpls software, Version 2.0. This software was chosen because it can estimate complex models that involve multiple constructs, indicator variables, and structural paths, without imposing distributional assumptions on non-normal and small-sized data (Hair et al., 2018). To achieve an appropriate model fit, six items (PH4, F1, F2, F3, F5, and F6) were excluded.

5.1 Measurement Model

Confirmatory factor analysis (CFA) was conducted to evaluate the measurement model (Anderson & Gerbing, 1988) and establish both convergent and discriminant validity. It is worth noting that all factor loadings were found to be greater than 0.7 and exhibited statistical significance, thereby confirming the presence of convergent validity (Hair, et al., 2018) (Table 1). Additionally, the AVE values were found to be statistically significant and exceeded the threshold of 0.05, indicating satisfactory convergent validity (Fornell & Larker, 1981). Furthermore, it should be mentioned that the CR values for all constructs were above the acceptable level of 0.7 (Fornell & Larker, 1981). To assess discriminant validity, the Fornell-Larker criterion was employed, which involves comparing the AVE values and squared correlations of each pair of latent constructs (Fornell and Larker, 1981). As indicated in Table 2, the AVE values for all constructs were higher than the squared correlations of the latent constructs. Moreover, it is important to note that the Maximum Shared Variance (MSV) for any given measure should be lower than the corresponding AVEs (Sarstedt, Ringle, Smith, Reams, & Hair, 2014).

Table 1: Item loadings, CR, AVE and Cronbach's alpha coefficients

Construct	Scale Items	Loadings	CR	AVE	Cronbach's alpha
SNS Addiction (SNS Ad)	SNS Ad1	0.782	0.904	0.546	0.879
	SNS Ad2	0.730			
	SNS Ad3	0.710			
	SNS Ad4	0.840			
	SNS Ad5	0.660			
	SNS Ad6	0.831			
	SNS Ad1	0.690			
	SNS Ad1	0.625			
Fomo (F)		0.649	0.819	0.534	0.707
		0.664			
	F8	0.750			
		0.850			
Phubbing (PH)	PH1	0.813	0.904	0.519	0.874
	PH2	0.714			
	PH3	0.635			
	PH5	0.695			
	PH6	0.664			
	PH7	0.746			
	PH8	0.680			
	PH9	0.799			
	PH10	0.729			

Table 2: Discriminant Validity of constructs

	F	PH	SNS Ad
Fomo (F)	<i>0.733</i>	-	-
Phubbing (PH)	0.368	<i>0.722</i>	-
SNS Addiction (SNS Ad)	0.162	0.591	<i>0.740</i>

5.2 Structural Model

The hypotheses proposed in this study were subjected to analysis using the Partial Least Squares (PLS) method. To determine the significance of the statistical results and path coefficients, a bootstrapping technique was employed, with 1000 iterations performed at a two-tailed significance level of 0.05. Examination of the structural model assessment, as presented in Table 3, demonstrated that both primary paths in the sample were significant. Moreover, Figure 2 visually illustrates that the relationship between SNS addiction ($\beta=0.546$, $p< 0.05$) and Fear of Missing OutFoMo ($\beta=0.279$, $p< 0.05$) exhibited statistical significance and a positive association, explaining 42.6 percent of the variability in phubbing behavior.

Figure 2 : Structural Model

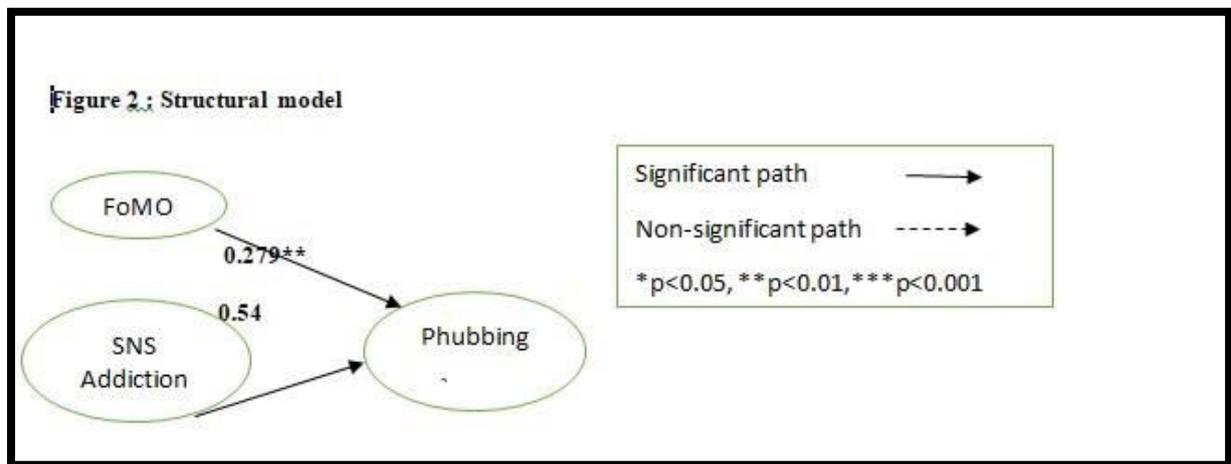


Table 3: Summary of test results for the structural model

Hypotheses	Path	Standardized coefficient	P-value	Supported	Constructs	R-squared
H1	F-PH	0.279	0.002	Yes	Phubbing	0.426
H2	SNS Ad-PH	0.546	0.000	Yes	-	-

6. Discussion

We conducted an experiment on two hypotheses to investigate the direct relationships between Fear of Missing Out (FoMO), phubbing, and SNS addiction. Our analysis substantiated FoMO and SNS Addiction as noteworthy factors that contribute to the negative aspects of digitalization and phubbing. We discovered a significant correlation between FoMO and phubbing. This finding is consistent with previous research that explored the same connection, albeit focusing on adolescents and young adults (Balta et al., 2020; Davey et al., 2018; Franchina et al., 2018). This outcome indicates that FoMO serves as a distinct catalyst, leading individuals to engage in phubbing behaviors through their smartphones. Furthermore, this discovery supports the notion that smartphones facilitate problematic utilization of social media, thus enhancing the phenomenon of phubbing. Furthermore, this discovery offers tangible evidence to back up previous studies, which have also proposed Fear of Missing Out (FoMO) as a plausible stimulus for problematic smartphone and social media usage in various settings, including professional environments. The fact that individuals' encounters with FoMO can significantly impact their professional lives speaks volumes about the all-encompassing nature of the negative aspect of social media and its ability to generate unfavorable consequences by blurring the boundaries between individuals' professional and personal lives. Thus, this research signifies a notable progression in our comprehension of FoMO, which has primarily been examined with regard to its impact on individuals' personal existence.

Data analysis also verified that SNS Addiction is strongly linked to an increase in phubbing. These findings suggest that SNS addiction may compel individuals to prioritize staying updated about social group activities. Consequently, this shift in focus may negatively affect various aspects of individuals' lives. Furthermore, these findings align to some extent with previous research, which established the impact of SNS addiction and phubbing (Tanhan et al., 2023; Ergun et al., 2023; Li-Chiu et al., 2022).

7. Implications

Studies on FoMO, social networking site addiction, and phubbing have far-reaching implications. These findings underscore the pervasive impact of modern communication technologies on individuals' psychological well-being and interpersonal relationships. This research suggests that the fear of missing out contributes significantly to the addictive nature of social networking sites, leading to a potential erosion of face-to-face interactions through phubbing behaviors. Acknowledging these implications is crucial for developing interventions and strategies to mitigate the adverse effects of excessive social media use and foster healthier communication habits in the digital age.

8. Conclusion

In summary, the current study contributes to the literature by implementing a multiple mediation model that provides a nuanced understanding of how FoMO contributes to university students' phubbing behavior. The results showed that university students' FoMO was positively correlated with their phubbing behavior. Furthermore, university students' addiction to SNS behaviour was positively correlated with their phubbing behaviour.

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