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Disconnected and Distressed: Unpacking the Link Between Fomo and Nomophobia in the Age of Digital Dependency

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ABSTRACT

The present study examined the relationship between Fear of Missing Out (FoMO) and Nomophobia among young adults, with Social Media Addiction as a mediating variable. Participants consisted of 300 university students aged between 18 and 26 years, who completed the Fear of Missing Out Questionnaire (FoMO-Q), the Social Media Addiction Scale (SMAS), and the Nomophobia Questionnaire (NQ). It was hypothesized that higher levels of FoMO would be associated with higher levels of Nomophobia, and that Social Media Addiction would mediate this relationship. The correlation results indicated a significant positive relationship between FoMO and Nomophobia ($r = .54, p < .001$). Regression analysis further confirmed that FoMO significantly predicted Nomophobia ($R^2 = .54, \beta = .44, p < .001$). Similarly, mediation analyses demonstrated that Social Media Addiction partially mediated the relationship between FoMO and Nomophobia. These findings suggest that individuals with high FoMO are more likely to experience Nomophobia, largely due to their dependence on social media. The study contributes to the growing body of literature on the psychological impacts of technology overuse and highlights the need for preventive interventions targeting social media overuse to reduce technology-related anxieties.

INTRODUCTION

In an increasingly hyper connected world, smartphones and social media are a part of everyday life and have fundamentally altered the ways people interact, work, and experience the world around them. Although technology has increased access to information and social interactions, it has also created patterns of overuse and dependence. This dependency has been associated with the development of problematic behaviors and anxiety related syndromes associated with the fear of being

away from your mobile device that is nomophobia (Elamrousy et al., 2024; Veerapu et al., 2019; Yildirim & Correia, 2015). In fact, nomophobia is a widespread phenomenon where an individual experiences anxiety (anxiety to be precise) when they are away from mobile connectivity. Nomophobia is particularly relevant for adolescents and students as younger people have integrated mobile devices into their social and academic lives. Identifying the psychological antecedents of nomophobia is important in terms of the broader mental health consequences of technology dependency (Veerapu et al., 2019).

A primary factor at the psychological level that supports digital over-use is Fear of Missing Out (FoMO), which has been defined as a pervasive anxiety that others are having rewarding experiences from which we are absent (Przybylski et al., 2013). FoMO is often the driving force behind compulsively checking social networking, as individuals try to stay continuously aware of their peer's activity, achievement and social occasions. This behavior of being always-on can create an addiction to smartphones, since smartphones are the primary channel to connect with online interactions. Research has found that high levels of FoMO is related to increase smartphone usage levels and elevated anxiety in relation to smartphone access (Rozgonjuk et al., 2019). Therefore, FoMO is potentially a key precursor to the development and escalation of nomophobia (Elamrousy et al., 2024). Fathimath & Sanjeevan, 2021).

The relationship between FoMO and nomophobia may be better understood through an exploration of social media addiction. Social media addiction is characterized by excessive or compulsive use of social media applications, including Instagram, TikTok and Facebook, resulting in interference with obligations of daily living, poor mental and emotional well-being, and withdrawal symptoms when not being able to connect (Andreassen et al., 2017; Fathimath & Sanjeevan, 2021; Syeda & Bareera, 2024). Recent studies reinforce this trend: a cross-sectional study involving young adults in Pakistan revealed that FoMO significantly predicted social media addiction (Parveiz et al., 2023) while a large-scale survey of Flemish adolescents found that FoMO not only predicted broader and more frequent use of social media platforms but also contributed to problematic smartphone behaviors like “phubbing” (Franchina et al., 2018). Excessive use of social media can create a socially-alienated cycle that can grow into addiction. This cycle creates reliance on mobile devices, which exacerbates anxiety when not being able to access devices - a hallmark of nomophobia (Gezgin, 2018). Therefore, social media addiction can be a psychological link from FoMO to nomophobia.

The intersection of FoMO, social media addiction and nomophobia can be viewed through Uses and Gratifications Theory (UGT) and Compensatory Internet Use Theory (CIUT). UGT suggests that media consumers actively seek out media content for the specific purpose of fulfilling a psychological and social need, like the need to feel included (Katz et al., 1974; Kuss & Griffiths, 2015; Marino et al., 2018) or to gain information. FoMO represents a strong need for social inclusion, which leads to a constant need to interact with friends and family online (i.e., Do I have the most updated posts? Are there new pictures of friends?). CIUT posits that consumers may use social media more than others to obtain desire feedback and to lessen negative feelings, and potentially fulfill unmet social needs (Kardefelt-Winther, 2014). Eventually, this use may spiral into a compulsive form, and excessive use can reinforce dependency on mobile devices and raise the possibility of nomophobic experiences. Together, these theories provide an excellent starting point for exploring

the role of social media addiction as a mediator in the relationship between FoMO and nomophobia.

While other studies (Quan-Haase & Young, 2010; Whiting & Williams, 2013) have demonstrated the relationship between FoMO and nomophobia, and suggest that it could be a significant predictor of nomophobia, there is limited empirical evidence demonstrating the mediating relationship of social media addiction in the FoMO to nomophobia association, especially in non-Western contexts. Most empirical research (Fabris et al., 2020) has examined only the FoMO or nomophobia measures independent or have only explored the bivariate association; lacks information on confounding variables, socio-cultural influences or other forms of digital dependencies. It is important to note there are several psychological drivers of FoMO and connectivity in nomophobia and prospective behavior patterns or beliefs that lead to excessive device dependency. Given the increased prevalence of excessive use of technology among university students and young adults, it is important to understand these relationships for the purpose of developing appropriate digital literacy and mental health interventions.

Furthermore, Zhang et al. (2023), in a meta-analysis, found a high correlation between FoMO and mobile phone addiction, but noted that the relationship did not significantly vary by age, gender, cultural background, or measurement scales, indicating limited attention to potential confounding variables. El-Ashry et al. (2024) examined nomophobia among Egyptian nursing students and identified additional predictors such as impulsive sensation-seeking, year of study, average daily smartphone usage, and age demonstrating that nomophobia is influenced by multiple behavioral and demographic factors, beyond FoMO alone. Hamutoglu et al. (2018) found a moderate predictive relationship between FoMO and nomophobia, with FoMO accounting for approximately 41% of the variance in nomophobia levels among Turkish university students. However, this study did not investigate the role of broader socio-cultural influences or other forms of digital dependency. The current study aims to bridge these gaps in knowledge by examining the causal relationship of FoMO on nomophobia, while investigating social media addiction as a mediator, resulting in a more thorough understanding of psychological mechanisms regarding digital dependency.

Literature Review

Fear of Missing Out (FoMO) is defined as a pervasive anxiety that others are having rewarding experiences in which one would like to participate, coupled with the desire to maintain and to design ongoing connections with what others are doing (Przybylski et al., 2013). With the rapid proliferation of digital communication, FoMO has become not only a form of social anxiety but also a common psychological phenomenon especially for youth and young adults. Individuals reporting higher levels of FoMO are more likely to engage in frequent social media checking, multitasking, and online performance (Elhai et al., 2021). This ongoing connectivity is commonly a coping strategy to relieve social anxiety, however, it is also a reinforcement schedule contributing to excessive device use.

Nomophobia, the fear or anxiety of being separated from one's cell phone or mobile network, is a growing concern in today's digital age (Yildirim & Correia, 2015). It includes emotional discomfort and behavioral dependence, such as compulsively checking one's device, being unable to concentrate without one's device, and becoming distressed when disconnected (King et al., 2020). Research suggests that nomophobia has been linked to poor academic performance, poor sleep and mental health (Badi et al., 2022). Smartphones are ubiquitous, being used socially,

academically, and in entertainment, and the risk of developing nomophobia is increasing rapidly.

Research indicates that there is a strong positive relationship between FOMO and nomophobia and that FoMO may drive psychological smartphone overuse and mobile dependence (Gezgin, 2018; Gezgin et al., 2021). FoMO users try to keep devices close at all times to maintain real-time social monitoring which becomes a dependency which ultimately turns into nomophobia. Rozgonjuk et al. (2020) noted that FOMO predicted daily smartphone use living in the real world which also increased the chances of self-reported anxiety when separated from the device. These findings highlight FOMO as an important precursor to understanding nomophobia emergence.

Social media addiction, defined as an excessive and compulsive style of technology use, has been suggested to mediate the relationship between foMO and nomophobia (Andreassen et al., 2017). Individuals scoring high on foMO are more likely to develop addictive patterns of social media use while monitoring their peers' activities (Tandon et al., 2022), and these addictions also normalize dependence on a mobile device, increasing emotional attachment and psychological distress when disconnected i.e key features of nomophobia (Sha et al., 2019). There is a growing number of studies in support of this indirect pathway that conclude social media addiction may explain the translation of foMO into anxiety-during-mobile-use activities (Elhai et al., 2020).

There has been some research on foMO and nomophobia themselves, but only a handful of studies have tested the mediating role of social media addictions as it pertains to foMO and nomophobia, particularly outside of Western contexts and in developing countries. Moreover, research addressing the potential impact of cultural influences including collectivism, and the importance of social connectedness on technology use is extremely diluted from published health literature. To ensure successful intervention strategies to change behaviour to avoid the negative psychological impacts of digital dependency, it is essential to address gaps in research.

METHOD Objectives

- 1-To examine the relationship and impact of FOMO on Nomophobia in young adults.
- 2-To study the mediating role of Social Media Addiction in the relationship between FOMO and nomophobia.

Hypotheses

- 1-There is a positive and significant relationship between Fear of Missing Out (FOMO) and Nomophobia in young adults.
- 2-Fear of Missing Out (FOMO) significantly predicts Nomophobia in young adults
- 3-Social Media Addiction significantly mediates the relationship between Fear of Missing Out (FOMO) and Nomophobia in young adults.

Participants

The study targeted young adults aged 18–30 years.

Inclusion criteria: Individuals within the age range from 18 to 30 years, enrolled either as undergraduate or postgraduate students, and owning a smartphone.

Exclusion criteria: Those with professionally diagnosed severe mental health conditions (e.g., psychotic disorders) or not regularly using social media for at least 6 months.

Sampling

A **convenience sampling** method was used to recruit **n = 300** participants from diverse departments across the university.

Operational Definitions

FoMO: A dispositional anxiety arising from the belief that others are having rewarding experiences without one’s participation, operationalized via a self-report scale.

Social Media Addiction: A behavioral pattern marked by compulsive or excessive social media use that disrupts daily functioning, measured by an addiction-oriented scale.

Nomophobia: Anxiety or discomfort resulting from being unable to access one’s mobile phone, assessed via a multidimensional instrument.

Instruments

Fear of Missing Out Scale (FoMOs)

The Fear of Missing Out Scale was created by Przybylski, Murayama, DeHaan, and Gladwell (2013) in order to assess people’s persistent fear that others might be having an enjoyable experience without them, which leads to the desire to remain perpetually connected to those others. The scale includes 10 items and responses are made on a 5-point Likert type scale from "1 = Not at all true of me" to "5 = Extremely true of me". It is a unidimensional scale measuring overall FoMO (and not separate sub-scale measurements). In addition, none of the items are in reverse. The original study reported good internal consistency with a Cronbach’s alpha of .87, indicating good reliability (Li et al., 2021; Przybylski et al., 2013). The FoMO scale has been validated extensively in different cultural contexts and is appropriate for adolescents and adults alike.

Bergen Social Media Addiction Scale (BSMAS)

The Bergen Social Media Addiction Scale (BSMAS) was created by Andreassen, Torsheim, Brunborg, and Pallesen (2012) to capture addictive behavior surrounding social media. The BSMAS has six items, and each item corresponds to the addiction components: salience, mood modification, tolerance, withdrawal, conflict, and relapse. Each response is rated on a Likert scale of 1 (Very rarely) to 5 (Very often), reflecting the frequency over a year period. The BSMAS is unidimensional and does not include any reverse-scored items. In the initial validation, the scale had good internal consistency (Cronbach’s alpha = .88) (Andreassen et al., 2012; Gomez et al., 2024 Bottaro et al., 2025). It is commonly used with both clinical and non-clinical populations to assess problematic social media use.

Nomophobia Questionnaire (NMP-Q)

The Nomophobia Questionnaire (NMP-Q) was developed by Yildirim and Correia (2015) to assess the degree of anxiety or discomfort an individual experience when they are not able to use their mobile phone. The NMP-Q consists of 20 items scored on a 7-point Likert scale from 1 (Strongly disagree) to 7 (Strongly agree). The NMP-Q consists of 4 subscales: (1) Not being able to communicate, (2) Losing connectedness, (3) Not being able to access information, and (4) Giving up convenience. No items are reverse scored. The original validation research reported good reliability with a Cronbach’s alpha of .945 for the full scale, and subscale reliabilities that ranged from .81 to .93 (Yildirim & Correia, 2015). The Nomophobia Questionnaire instrument can be used in multiple cultural contexts to assess anxiety related to mobile phones.

RESULTS

Table 1: Descriptive Characteristics of the Study Sample (N=300)

Sample Data	n	%
Age		
18-28	145	48.33

	29-37	155	51.66
Gender	Men	120	40
	Women	180	60
Family system	Joint	145	48.33
	Nuclear	155	51.66
Residency	Urban	170	56.66
	Rural	130	43.33

Table 1 outlines the demographic details of the participants in the study. The sample was composed of 300 young adults aged 18-37, with a slightly larger proportion aged 29-37 (51.66%) than those aged 18-28 (48.33%). Regarding gender, 60% of the sample were women and 40% were men. Concerning family systems, 51.66% of the sample came from nuclear families, while 48.33% were from joint family systems. Furthermore, a little more than half of the responses were from urban-dwelling respondents (56.66%) and the remaining respondents were rural-dwelling (43.33%). Overall the sample appeared to be fairly representative across age and family systems, with a slight majority of female and urban respondents.

Table 2: Descriptive properties of all the scales (N=300)

Scales	K	α	M	SD	Range		Skew	Kurt
					Actual	Potential		
FoMO-Q	10	.76	27.24	4.26	12-34	10-50	.54	.73
SMAS	6	.74	18.98	2.42	15-24	6-30	.48	.57
NQ	20	.84	98.24	5.26	24-120	20-140	.81	.43

Note: FoMO-Q= Fear of Missing Out Questionnaire; SMAS= Social Media Addiction Scale; NQ= Nomophobia Questionnaire

Table 2 shows the descriptive statistics and reliability coefficients for the study variables. The Fear of Missing Out Questionnaire (FoMO-Q) consists of 10 items and demonstrated acceptable internal consistency ($\alpha = .76$). Participants' scores ranged from 12 to 34, with a possible range of 10 to 50, and the mean score was 27.24 (SD = 4.26). The skewness (.54) and kurtosis (.73) values indicate a relatively normal distribution. The Social Media Addiction Scale (SMAS) includes 6 items, with a Cronbach's alpha of .74, indicating acceptable reliability. Actual scores ranged from 15 to 24, within a possible range of 6 to 30, and the mean score was 18.98 (SD = 2.42). Skewness (.48) and kurtosis (.57) values suggest no substantial deviation from normality. The Nomophobia Questionnaire (NQ) contains 20 items and demonstrated good internal consistency ($\alpha = .84$). Participants scored between 24 and 120, within a possible range of 20 to 140, with a mean score of 98.24 (SD = 5.26). Skewness (.81) and kurtosis (.43) values also fell within acceptable limits, indicating a near-normal distribution.

Table 3: Correlation matrix between Study Variables (N=300)

Variables	1	2	3
FoMO-Q	-		
SMAS	.72 **	-	
NQ	.53 **	.51 **	-

Note. FoMO-Q= Fear of Missing Out Questionnaire; SMAS= Social Media Addiction Scale; NQ= Nomophobia Questionnaire

Table 3 shows the Pearson correlations among the study variables. The Fear of Missing Out Questionnaire (FoMO-Q) was strongly and positively correlated with the Social Media Addiction Scale (SMAS) ($r = .72, p < .01$), suggesting that individuals with higher levels of fear of missing out tend to report greater social media addiction. FoMO-Q also showed a moderate positive correlation with the Nomophobia Questionnaire (NQ) ($r = .53, p < .01$), indicating that greater fear of missing out is linked to higher nomophobia. Similarly, SMAS demonstrated a moderate positive correlation with NQ ($r = .51, p < .01$), suggesting that higher levels of social media addiction are associated with increased nomophobia. All correlations were statistically significant at the .01 level.

Table 4: Regression Coefficients of Independent Variables on Dependent Variable (Nomophobia)

Variables	B	SE	T	p	95%CL
Constant	21.26	.72	29.71	.00	19.84– 22.68
FoMO-Q	.44	.03	12.85	.00	.38 – .51
SMAS	.53	.05	11.76	.00	.44- .62

Note. FoMO-Q= Fear of Missing Out Questionnaire; SMAS= Social Media Addiction Scale

Table 4 presents the regression coefficients of the independent variables Fear of Missing Out (FoMO-Q) and Social Media Addiction (SMAS) on the dependent variable, Nomophobia. The regression model indicates that both predictors significantly contribute to the variance in Nomophobia. The constant value ($B = 21.26, p < .001$) represents the expected Nomophobia score when both FoMO-Q and SMAS scores are zero. FoMO-Q showed a significant positive effect on Nomophobia ($B = 0.4, p < .001$), indicating that for every one-unit increase in FoMO, Nomophobia scores increase by 0.44 points, holding other variables constant. Similarly, SMAS also significantly predicted Nomophobia ($B = 0.53, p < .001$), suggesting that a one-unit increase in social media addiction is associated with a 0.53-point increase in Nomophobia scores. These results suggest that higher levels of FoMO and social media addiction are both strong predictors of higher Nomophobia among participants.

Table 5: Mediating role of Smartphone Addiction between Fear of Missing Out and Nomophobia (N=300)

Variables	R^2	B	SE	t	95% CI	
					LL	UL

Total effect	.54	.44***	.02	22.65	.40	.49
FoMO-Q-- NQ(c)						
Direct effect						
FoMO-Q--SMAS (a)		.32***	.01	26.82	.29	.35
SMAS--NQ (b)		.54***	.04	14.21	.46	.62
FoMO-Q--- NQ(c')		.29***	.02	13.64	.25	.33
Indirect effect						
FoMO-Q— SMAS--NQ	.66	.17***	.03		.12	.22

Note. .FoMO-Q= Fear of Missing Out Questionnaire; SMAS= Social Media Addiction Scale; NQ= Nomophobia Questionnaire
 $p < .01^{**}$; $p < .001^{***}$

Table 5 presents the mediating role of smartphone addiction between fear of missing out (FoMO) and nomophobia among university students ($N = 300$). The total effect of FoMO on nomophobia was significant ($B = .44$, $p < .001$), indicating that higher levels of FoMO predicted greater nomophobia. In the mediation pathway, FoMO significantly predicted smartphone addiction ($B = .32$, $p < .001$), and smartphone addiction, in turn, significantly predicted nomophobia ($B = .54$, $p < .001$). When smartphone addiction was included in the model, the direct effect of FoMO on nomophobia decreased to $B = .29$, but remained significant ($p < .001$). The indirect effect through smartphone addiction was also significant ($B = .17$, 95% CI [.12, .22]), confirming partial mediation. These results suggest that FoMO contributes to nomophobia both directly and indirectly through heightened smartphone addiction.

Discussion

This study was intended to investigate the association between Fear of Missing Out (FoMO) and Nomophobia in young adults. The results provided evidence of a strong and positive association between FoMO and Nomophobia, suggesting that an individual with high FoMO will show high levels of smartphone dependence and anxiety when unable to access their smartphone.

The results of the present study provided evidence of a strong positive association between Fear of Missing Out (FoMO) and Nomophobia among young adults, suggesting that individuals who experience higher FoMO are going to experience higher levels of Nomophobia. The results were consistent with previous literature, which has reported FoMO as a relevant psychological factor in technology related anxieties and compulsive smartphone use. FoMO instills a continuous need to be in the know of what other people are doing and the need to persistently check one's smartphone or technology, thus adding to smartphone dependency, which adds to Nomophobia (Gezgin et al., 2023; Kaur & Sharma, 2024). This tendency also increases when there are digital spaces that seek constant engagement with other people and establish the need to connect, which bolsters anxiety when unable to connect or confirm purpose of social isolation (Fatharany et al., 2023; Wang et al., 2024). FoMO in young adults appears to coexist with Nomophobia and may also represent a psychological contribution to the continued dependence on technology.

Furthermore, regression analysis outlined in the study demonstrated that FoMO positively predicts Nomophobia among young adults. This predictive finding demonstrates that increased FoMO is a risk factor for developing Nomophobia, because individuals who fixate on missing social updates often feel restless when their smartphone is not within their reach (Chotpitayasunondh & Douglas, 2022; Dogan &

Tosun, 2024). Empirical research has shown that the predictive effect of FoMO is valid when individuals with higher FoMO tendencies are more likely to engage in compulsive smartphone use and experience more anxiety when they are away from their device (Fatharany et al., 2023; Kaur & Sharma, 2024). This highlights the mental health impact of how FoMO can be a pathway to habitual and anxiety-driven forms of smartphone addiction.

In addition, the mediation analysis established Social Media Addiction is a significant mediator. This indicates that those experiencing excessive FoMO are more likely to use social media excessively, subsequently leading to increased anxiety about being deprived of their smartphones. As with prior research, social media serves both as a trigger and a coping mechanism for FoMO and sustains obsessive usage and dependence on devices (Al-Mhiqani et al., 2023; Busalim et al., 2022). The mediation effect indicates social media is a mediating mechanism that converts the psychological discomfort of FoMO into the behavioral manifestation of Nomophobia. This is consistent with findings by Gezgin et al. (2023) and Wang et al. (2024) who also emphasized that minimizing excessive social media use could be a helpful way to reduce the FoMO Nomophobia relationship.

Conclusion

In summary, the current research demonstrates a strong relationship between the Fear of Missing Out (FoMO) and young adult's experience of Nomophobia. Young adults' individual experience of Nomophobia both directly, and through Social Media Addiction, was able to directly relate FoMO. It appears FoMO coexists with Nomophobia, but it also predicts higher Nomophobia, suggesting that there is a psychological dynamic in which continuous need for social connection encourages a compulsive need to use a smartphone device. The fact that Social Media Addiction was a mediation for Nomophobia reinforces the psychological fear of the individual and the behaviors of the individual relating to technology. This cycle explains how an individual's fear of disconnection is both exacerbated through excessive social media engagement and also psychologically disordered. These are insights from the current study, and shed light on the potential of FoMO, and understanding strategies to help mitigate nomophobia via social media engagement habits.

Limitations

This study has limitations. First, it is limited by its cross-sectional design, which prevents the data from supporting causal relationships between Fear of Missing Out, Social Media Addiction, and Nomophobia. Second, it is also limited by the use of self-report measures, which may have introduced response biases, such as social desirability or poor self-awareness. Third, the sample was comprised solely of young adults and may not be generalizable to a younger or older demographic or sample of individuals. Furthermore, other unobserved confounding variables (e.g., personality characteristics or prior history of diagnoses of mental health conditions) were not controlled and may have influenced the relationships observed. Future research is necessary with researchers to corroborate and advance the findings of this study through larger samples and objective behavioral measures of associated constructs.

Suggestions

Several options for future research and practical implementations can be derived from this work. Higher education institutions and mental health providers should develop awareness programs that help young adults develop healthier social media behaviors and cope with the negative psychological effects of Fear of Missing Out. Integrating digital literacy and self-regulation practices into the curriculum has great potential to reduce the likelihood of problematic smartphone engagement and the associated

anxieties. Future research would benefit from examining protective factors like mindfulness, emotional intelligence, and offline socializing as buffers to Nomophobia. It would also be valuable to compare these relationships across various age groups, cultures, and social media platforms to better understand the phenomenon. A longitudinal study would allow researchers to track changes that may happen over time, while researchers could experiment to evaluate if the interventions introduced in a controlled experiment produce the desired outcomes.

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