Fear of Missing Out (FOMO) and Social Media Addiction among Chinese Students

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ABSTRACT

Social media has become an integral part of students' everyday communication, information seeking, relationship maintenance, and entertainment. At the same time, persistent connectivity may contribute to problematic patterns of social media use, particularly when users experience fear of missing out (FOMO). This study examines the relationship between two dimensions of FOMO (trait FOMO and state FOMO) and social media addiction among Chinese students at Universiti Putra Malaysia (UPM). This study also guided by the Interaction of Person-Affect-Cognition-Execution (I-PACE) model. A quantitative survey design was employed using simple random sampling. Data were collected through a self-administered questionnaire, and 330 valid responses were analysed using IBM SPSS Statistics 27.0. The instrument measured trait FOMO, state FOMO, and social media addiction using five-point Likert-scales. The findings indicate high levels of trait FOMO ($M = 3.759$, $SD = 1.020$), state FOMO ($M = 3.863$, $SD = 0.835$), and social media addiction ($M = 3.778$, $SD = 0.727$). Pearson correlation analysis showed significant positive relationships between trait FOMO and social media addiction ($r = .509$, $p < .001$) and between state FOMO and social media addiction ($r = .621$, $p < .001$). After controlling for demographic and social media use variables, trait FOMO remained a significant positive predictor of social media addiction ($B = .261$, $\beta = .367$, $t = 7.172$, $p < .001$; $R^2 = .351$), while state FOMO demonstrated a stronger positive association ($B = .474$, $\beta = .544$, $t = 10.309$, $p < .001$; $R^2 = .434$). The findings provide empirical support for the I-PACE framework and indicate that both relatively stable dispositional tendencies and situation-specific FOMO are associated with problematic social media use. The stronger predictive contribution of state FOMO highlights the importance of addressing immediate cognitive and affective pressures that encourage continuous checking and online engagement. The study contributes to communication and digital-behaviour research by providing evidence from Chinese students in the Malaysian higher-education context and offers practical implications for promoting healthier social media practices.

Keywords: Fear of Missing Out (FOMO), trait FOMO, state FOMO, social media addiction, Chinese students, I-PACE model

INTRODUCTION

Social media has transformed how young adults communicate, maintain relationships, obtain information, and participate in everyday social life. Mobile connectivity enables users to remain continuously connected with friends, communities, and digital content across geographical boundaries. For Chinese students studying in Malaysia, social media also provides an important means of maintaining connections with family, friends, and cultural networks in China, while supporting communication, information seeking, and adaptation to the host environment (Zhao et al., 2023; Wong & Liu, 2024). Research specifically examining Chinese students in Malaysia has shown that social media use is closely related to social interaction, information seeking, acculturation, and the maintenance of Chinese cultural identity (Zhao et al., 2023). Within this context, platforms such as WeChat, Douyin, and Xiaohongshu provide opportunities for communication, information exchange, entertainment, and participation in culturally familiar online communities. However, the persistent connectivity enabled by social media may also create pressure to remain informed, socially connected, and responsive to ongoing online interactions, potentially increasing the tendency for continuous checking and engagement.

One psychological phenomenon that has attracted substantial attention in digitally connected environments is fear of missing out (FOMO). FOMO is commonly associated with concern that other people are experiencing rewarding events or interactions without oneself and with a desire to remain informed about what others are doing (Przybylski et al., 2013). Importantly, FOMO is not necessarily a single, uniform experience. Wegmann et al. (2017) and Li et al. (2020) distinguish relatively stable individual differences in FOMO from situation-specific experiences. The present study therefore differentiates trait FOMO, which reflects a more enduring tendency, from state FOMO, which reflects FOMO activated in particular social-media situations.

FOMO is particularly relevant to social media because platforms provide an environment in which users can continuously observe the activities, opinions, experiences, and social interactions of others. Notifications, status updates, trending topics, short-form videos, and user-generated content may intensify the perception that something important is happening elsewhere. Research has linked FOMO with more frequent social media use and problematic use patterns (Alt, 2015; Wegmann et al., 2017; Rozgonjuk et al., 2020). Recent research has further suggested that trait and state FOMO may have distinct relationships with problematic social networking-site use, with state FOMO potentially representing a more immediate mechanism through which online experiences translate into problematic engagement (Hussain et al., 2024).

Social media addiction is also referred to the problematic social media use. This characterized by persistent and excessive engagement with social media that may interfere with individuals' daily functioning and well-being. This study operationalises social media addiction through six dimensions adapted from the Bergen Facebook Addiction Scale tradition: salience, tolerance, mood modification, relapse, withdrawal, and conflict (Andreassen et al., 2012). These dimensions capture different aspects of problematic engagement, including preoccupation, increasing use, using social media to regulate mood, unsuccessful attempts to reduce use, discomfort when access is restricted, and interference with studies or interpersonal activities.

The relationship between FOMO and problematic social media use is theoretically consistent with the I-PACE model. Brand et al. (2016, 2019) conceptualise addictive behaviours as emerging from interactions among person-related characteristics, affective and cognitive responses, executive processes, and specific problematic behaviours. Within this framework, relatively stable person characteristics can increase sensitivity to social and informational cues; affective and cognitive responses may then shape decisions to engage with a digital medium, while reinforcement and gratification can maintain problematic behaviour. The distinction between trait FOMO and state FOMO is therefore useful because it allows the study to consider both a relatively stable predisposition and more immediate cognitive-affective experiences.

Although previous studies have established associations between FOMO and problematic social media use, fewer studies have simultaneously examined trait FOMO and state FOMO among Chinese students in Malaysia. The study also identified a limited body of research using a dual-dimensional FOMO approach in relation to social media addiction, particularly within the Chinese student population. This is an important contextual gap because students studying abroad may rely strongly on social media to maintain transnational social connections while simultaneously navigating new social environments. The combination of these conditions may make the relationship between FOMO and problematic social media use especially relevant.

Accordingly, this study investigates the levels of trait FOMO, state FOMO, and social media addiction among Chinese students at UPM and examines the relationships between the two FOMO dimensions and social media addiction. Guided by the I-PACE model, the study tests two hypotheses: H1: Trait FOMO is positively and significantly related to social media addiction among Chinese students; and H2: State FOMO is positively and significantly related to social media addiction among Chinese students.

LITERATURE REVIEW

Fear of Missing Out and Social Media Use

FOMO has been described as a motivational and emotional experience involving concern about being excluded from rewarding experiences available to others and a desire to remain connected to social information (Przybylski et al., 2013). Its relevance to social media arises from the architecture of continuous connectivity.

Users can observe social activity in real time, receive notifications, and compare their experiences with those of peers. Such affordances may make it difficult for individuals with elevated FOMO to disengage from social platforms.

Research has increasingly moved from treating FOMO as a single construct towards recognising its multidimensional nature. The trait-state distinction is especially relevant to the I-PACE perspective. Trait FOMO represents a relatively stable tendency to worry about missing rewarding experiences, whereas state FOMO reflects situational concerns activated by particular online contexts. Li et al. (2020) developed and validated a trait-state FOMO scale in a Chinese university-student sample, providing empirical support for distinguishing these dimensions. This distinction offers a stronger conceptual basis for examining how different forms of FOMO relate to problematic social media use.

Empirical research has consistently connected FOMO with intensive social media engagement. Alt (2015), for example, found that FOMO was associated with increased social media use among undergraduate students. Rozgonjuk et al. (2020) reported that FOMO was related to the impact of social media on daily life and productivity, while Li et al. (2022) examined the interrelationships among FOMO, smartphone addiction, and social networking-site use among Chinese university students. More recent research has also examined the distinct roles of trait and state FOMO in problematic networking-site use (Hussain et al., 2024), reinforcing the value of a differentiated approach.

Social Media Addiction

Social media addiction is generally discussed within the broader literature on behavioural and internet-related addictions. Rather than being defined simply by the amount of time spent online, problematic use involves a pattern of psychological and behavioural symptoms. Andreassen et al. (2012) operationalised social networking-site addiction through salience, mood modification, tolerance, withdrawal, conflict, and relapse. These dimensions have subsequently been widely used as indicators of problematic social media engagement.

The six-dimensional approach is particularly useful for communication research because it captures both internal experiences and observable consequences. Salience reflects the prominence of social media in a person's thoughts and activities; tolerance concerns increasing engagement; mood modification concerns using social media to change emotional states; relapse reflects unsuccessful efforts to reduce use; withdrawal concerns negative reactions to restricted access; and conflict reflects interference with studies, relationships, hobbies, or other activities. The present study applies these dimensions to Chinese students, enabling the concept of social media addiction to be examined beyond simple frequency of use.

Problematic social media use has been associated with a range of psychosocial difficulties, and the literature has increasingly considered the psychological processes that contribute to persistent engagement. Kuss and Griffiths (2011, 2017) emphasised the behavioural and psychological dimensions of social networking-site addiction, while recent studies have continued to investigate the roles of self-regulation, peer contexts, emotional processes, and FOMO (Zhang et al., 2024; Zhao et al., 2024). These developments support the need to examine not only how much students use social media but also why they may find it difficult to disengage.

I-PACE Model and FOMO

The Interaction of Person-Affect-Cognition-Execution (I-PACE) model provides the theoretical foundation for this study. The model was introduced to explain the development and maintenance of specific internet-use disorders and was subsequently updated to provide a broader account of addictive behaviours (Brand et al., 2016, 2019). The model proposes that person-related characteristics interact with affective and cognitive responses to internal or external triggers. These processes influence decisions to engage in specific behaviours, while reward expectancies, coping styles, and gratification may reinforce repeated engagement.

Within this framework, trait FOMO can be understood as a person-related characteristic that may increase sensitivity to social and informational triggers. State FOMO can be conceptualised as a more immediate affective-cognitive response to such triggers, for example when an individual fears being out of date, keeps

notifications active, remains online to avoid missing information, or monitors peers' activities. When these processes repeatedly lead to social media engagement, the behaviour may become increasingly persistent and problematic.

Previous applications of I-PACE support its usefulness for examining problematic digital behaviours. Jhone et al. (2021) applied the model to internet gaming disorder, while Mehmood et al. (2021) used it to examine smartphone addiction. Research has also begun to integrate FOMO within I-PACE-based explanations of problematic social media use. Pupi et al. (2024) examined FOMO as a mechanism linking personality and problematic Instagram use, while Li et al. (2024) reported longitudinal evidence that high trait and state FOMO were associated with more frequent social media use and self-control failure. These studies suggest that the trait-state distinction is theoretically meaningful and warrants further testing in specific cultural and educational contexts.

Research Gap and Hypotheses

Despite the growing literature on FOMO and problematic social media use, three gaps remain relevant. First, much of the existing literature treats FOMO as a general construct rather than simultaneously examining its trait and state dimensions. Second, evidence specifically involving Chinese students studying in Malaysia remains limited, even though social media may be especially important for maintaining connections across geographical and cultural boundaries. Third, although I-PACE provides a strong framework for linking person-related characteristics and affective-cognitive responses to problematic digital behaviours, empirical evidence comparing the relative contributions of trait and state FOMO to social media addiction is still developing. The present study addresses these gaps by examining both FOMO dimensions in one empirical model.

Based on the I-PACE model and the reviewed literature, the following hypotheses were formulated:

H1: Trait FOMO is positively and significantly related to social media addiction among Chinese students.

H2: State FOMO is positively and significantly related to social media addiction among Chinese students.

METHODOLOGY

Research Design and Participants

This study employed a quantitative survey design to examine the relationships among trait FOMO, state FOMO, and social media addiction. The target population comprised Chinese students studying at Universiti Putra Malaysia. Simple random sampling was adopted, and 330 valid questionnaires were retained after data screening. The questionnaire was administered in both Chinese and English to support comprehension among the target respondents. The study therefore provides empirical evidence from a defined Chinese student population in a Malaysian higher-education setting.

Instrument and Measurement

The questionnaire comprised three sections. Section A collected demographic and social media-use information, including gender, age, education level, monthly family income, duration of social media use, weekly frequency, daily usage time, primary access device, and preferred platform. Section B measured FOMO using two dimensions. Trait FOMO comprised five items adapted from the trait-state FOMO literature (Wegmann et al., 2017), while state FOMO comprised seven items addressing continuous online presence, keeping up with current issues, notification use, sharing experiences, understanding online language, and monitoring friends' activities. Items were measured on a five-point Likert scale from 1 (totally disagree) to 5 (totally agree).

Section C measured social media addiction using 18 items adapted from the Bergen Facebook Addiction Scale tradition (Andreassen et al., 2012). The instrument covered six dimensions: salience, tolerance, mood modification, relapse, withdrawal, and conflict, with three items for each dimension. Responses were recorded

on a five-point scale from 1 (very rarely) to 5 (very often). Higher scores represented higher levels of FOMO or social media addiction.

Pilot Testing, Reliability and Validity

A pilot test was conducted with 79 Chinese students prior to the main survey. Internal consistency was evaluated using Cronbach's alpha. The pilot results reported alpha values of .875 for trait FOMO, .899 for state FOMO, .812 for salience, .796 for tolerance, .801 for mood modification, .806 for relapse, .809 for withdrawal, and .813 for conflict, with an overall scale reliability of .915. These values exceeded the conventional .70 threshold, indicating satisfactory internal consistency.

Construct	Items	Cronbach's α
Trait FOMO	5	.875
State FOMO	7	.899
Salience	3	.812
Tolerance	3	.796
Mood modification	3	.801
Relapse	3	.806
Withdrawal	3	.809
Conflict	3	.813
Overall scale	30	.915

Note. Pilot-test reliability coefficients reported in the dissertation. All values exceeded .70.

For construct validity, exploratory factor analysis was performed using SPSS. The dissertation reported a KMO value of .927 and a significant Bartlett's test of sphericity ($\chi^2 = 5372.137$, $df = 435$, $p < .001$), indicating that the data were suitable for factor analysis. Principal component analysis with Varimax rotation identified eight components corresponding to the two FOMO dimensions and the six social media addiction dimensions. The reported factor loadings exceeded .50, supporting the structural validity of the measurement instrument.

Data Analysis

Data were analysed using IBM SPSS Statistics 27.0. Descriptive statistics were used to summarise respondent characteristics, social media-use patterns, and construct levels. The study classified mean scores from 1.00–2.33 as low, 2.34–3.67 as moderate, and 3.68–5.00 as high. Pearson product-moment correlation was used to examine the relationships between FOMO dimensions and social media addiction. Multiple linear regression was subsequently conducted to determine whether trait FOMO and state FOMO significantly predicted social media addiction after controlling for demographic and social media-use variables.

Normality was assessed using skewness and kurtosis. The reported skewness values were −.693 for trait FOMO, −.395 for state FOMO, and −.361 for social media addiction, while kurtosis values were −.519, −.928, and −.811, respectively. These values were considered sufficiently close to a normal distribution for the planned parametric analyses.

Ethical Considerations

Ethical approval for this study was obtained from the relevant institutional ethics committee before data collection commenced. Participation was voluntary, and informed consent was obtained from all respondents. Participants were assured that their responses would remain confidential and anonymous and would be used solely for academic research purposes.

RESULTS

Respondent Profile

Table 1 presents the demographic profile of the respondents (n = 330). Females represented 57.58% of the sample

(n = 190), while males represented 42.42% (n = 140). Respondents aged 18–30 constituted 65.15% of the sample. In terms of educational attainment, 45.15% were undergraduates, 41.21% were master's students, and 13.64% were doctoral students. Monthly household income was concentrated in the middle-income categories, with 29.09% reporting RMB 3,000–6,000 and 26.67% reporting RMB 6,001–9,000. Overall, the findings indicate that the respondents were predominantly young adult students from undergraduate and postgraduate backgrounds, with most reporting middle-income household backgrounds.

Table 1 Demographic Profile of Respondents

Characteristic	Category	Frequency (n)	Percentage (%)
Gender	Male	140	42.42
	Female	190	57.58
Age	18–25	97	29.39
	26–30	118	35.76
	31–35	41	12.42
	36–40	49	14.85
	41 or older	25	7.58
Education	Undergraduate	149	45.15
	Master	136	41.21
	PhD	45	13.64
Family income	< RMB 3,000	14	4.24
	RMB 3,000–6,000	96	29.09
	RMB 6,001–9,000	88	26.67
	RMB 9,001–12,000	82	24.85
	> RMB 12,000	50	15.15

Note. n = 330. Percentages are based on the final valid sample.

Social Media Use Patterns

The sample demonstrated intensive engagement with social media. Table 2 presents the level of social media usage among the respondents. More than one-third of respondents (36.97%) had used social media for more than five years, while 60.91% reported using social media every day. Daily usage was particularly high: 39.09% spent more than eight hours per day on social media and 25.15% spent six to eight hours. Smartphones were the dominant access device (77.88%), followed by tablets (15.76%), laptops (5.15%), and desktop computers (1.21%). WeChat was the most preferred platform (41.82%), followed by Douyin (36.36%) and Xiaohongshu (21.82%). This high level of social media engagement suggests that respondents were strongly immersed in digital communication environments and regularly exposed to social media interactions and content.

Table 2 Social Media Characteristic

Social media characteristic	Category	n	%
Duration of use	<1 year	10	3.03
	1–2 years	58	17.58
	3–4 years	72	21.82
	4–5 years	68	20.61
	>5 years	122	36.97
Weekly frequency	1 day	45	13.64
	2–3 days	48	14.55
	4–6 days	36	10.91
	Every day	201	60.91
Daily time	1–3 hours	50	15.15
	4–5 hours	68	20.61
	6–8 hours	83	25.15

	>8 hours	129	39.09
Primary device	Smartphone	257	77.88
	Laptop	17	5.15
	Desktop	4	1.21
	Tablet	52	15.76
Preferred platform	WeChat	138	41.82
	Douyin	120	36.36
	Xiaohongshu	72	21.82

Note. n = 330.

Levels of Trait FOMO, State FOMO and Social Media Addiction

The results indicate that both dimensions of FOMO were at a high level (Table 3). For instance, the trait FOMO recorded a mean of 3.759 (SD = 1.020), while state FOMO recorded a mean of 3.863 (SD = 0.835). The higher state-FOMO mean suggests that situation-specific concerns about remaining connected and updated were somewhat more pronounced than the more enduring trait-level tendency.

Table 3 Levels of FOMO, State FOMO and Social Media Addiction

Construct	M	SD	Level
Trait FOMO	3.759	1.020	High
State FOMO	3.863	0.835	High
Social media addiction	3.778	0.727	High

Note. Scale interpretation: 1.00–2.33 = low; 2.34–3.67 = moderate; 3.68–5.00 = high.

Furthermore, Table 3 also shows that the state FOMO was particularly evident in the importance respondents attached to understanding online language used by friends (M = 4.046, SD = 0.930), enabling social media notifications to avoid missing information (M = 3.933, SD = 1.114), sharing details of enjoyable experiences (M = 3.909, SD = 1.104), and monitoring friends' activities during vacations (M = 3.888, SD = 1.087). These findings indicate that FOMO among Chinese students extended beyond passive concerns and was reflected in active behaviours, such as maintaining continuous connectivity, monitoring notifications, and keeping up with ongoing social and informational updates.

In addition, the social media addiction also reached a high overall level (M = 3.778, SD = 0.727). All six dimensions exceeded the high-level threshold. Withdrawal recorded the highest dimension mean (M = 3.842, SD = 0.976), followed by conflict (M = 3.819, SD = 0.973), mood modification (M = 3.776, SD = 0.927), tolerance (M = 3.772, SD = 0.925), relapse (M = 3.765, SD = 1.009), and salience (M = 3.693, SD = 0.982). Overall, the findings indicate that Chinese students reported a high level of social media addiction across all six dimensions, suggesting that problematic social media use was evident in multiple aspects of their engagement, particularly withdrawal and conflict.

Correlation Analysis

Pearson correlation analysis demonstrated significant positive relationships between both dimensions of FOMO and social media addiction (Table 4). Trait FOMO was moderately correlated with social media addiction ($r = .509$, $p < .001$), while state FOMO showed a stronger positive correlation ($r = .621$, $p < .001$). Trait FOMO and state FOMO were also positively correlated ($r = .599$, $p < .001$), indicating that students with stronger dispositional FOMO tended to report more situation-specific to FOMO experiences.

Overall, the findings demonstrate that higher levels of both trait and state FOMO were significantly associated with greater social media addiction among Chinese students. The stronger association observed for state FOMO indicates that situation-specific FOMO experiences have a closer relationship with problematic social media use than dispositional FOMO. Thus, students with stronger general FOMO also reported more situation-specific FOMO experiences.

Table 4 Pearson Correlations among Trait FOMO, State FOMO, and Social Media Addiction

Variables	M	SD	Trait FOMO	State FOMO	Social media addiction
Trait FOMO	3.759	1.020	1.000	.599***	.509***
State FOMO	3.863	0.835	.599***	1.000	.621***
Social media addiction	3.778	0.727	.509***	.621***	1.000

Note. *** $p < .001$.

Regression Analysis and Hypothesis Testing

Multiple regression models were estimated after controlling for gender, age, education level, family income, duration of social media use, weekly usage frequency, daily usage time, primary device, and preferred platform. Table 5 shows that the trait FOMO was a significant positive predictor of social media addiction (B = .261, SE = .036, β = .367, t = 7.172, $p < .001$). The model explained 35.1% of the variance in social media addiction ($R^2 = .351$; adjusted $R^2 = .330$), and the overall regression model was significant, $F(10, 319) = 17.237$, $p < .001$. H1 was therefore supported.

Table 5 Multiple Regression Analysis of Trait FOMO Predicting Social Media Addiction

Predictor	B	SE	β	t	p
Trait FOMO	.261	.036	.367	7.172	< .001

Note. Dependent variable = social media addiction. Model $R^2 = .351$; adjusted $R^2 = .330$; $F(10, 319) = 17.237$, $p < .001$.

State FOMO demonstrated an even stronger positive association with social media addiction (Table 6). After the same control variables were entered, state FOMO significantly predicted social media addiction (B = .474, SE = .046, β = .544, t = 10.309, $p < .001$). The model explained 43.4% of the variance ($R^2 = .434$; adjusted $R^2 = .417$), with a significant overall regression model, $F(10, 319) = 24.510$, $p < .001$. H2 was therefore supported.

Table 6 Multiple Regression Analysis of State FOMO Predicting Social Media Addiction

Predictor	B	SE	β	t	p
State FOMO	.474	.046	.544	10.309	< .001

Note. Dependent variable = social media addiction. Model $R^2 = .434$; adjusted $R^2 = .417$; $F(10, 319) = 24.510$, $p < .001$.

The findings provide clear support for both hypotheses. H1 was supported, indicating that trait FOMO was significantly and positively associated with social media addiction. This suggests that Chinese students with a stronger general tendency to experience FOMO reported higher levels of problematic social media use.

H2 was also supported, demonstrating a significant positive relationship between state FOMO and social media addiction. The stronger association for state FOMO indicates that situation-specific FOMO experiences are closely related to students' problematic social media use. Overall, the findings highlight both trait and state FOMO as important factors associated with social media addiction among Chinese students.

Hypothesis	Relationship	Result
H1	Trait FOMO → Social media addiction	Supported
H2	State FOMO → Social media addiction	Supported

Note. Both hypotheses were supported at $p < .001$.

DISCUSSION

Trait FOMO and Social Media Addiction

The first major finding is that trait FOMO was positively associated with social media addiction. The correlation coefficient ($r = .509$, $p < .001$) indicates a moderate relationship, and the regression analysis confirms that trait FOMO remained a significant predictor after demographic and social media-use variables were controlled. This finding supports H1 and suggests that students who have a relatively enduring tendency to worry about missing rewarding experiences are more likely to report problematic patterns of social media engagement.

The result is consistent with the past FOMO literature, which conceptualises FOMO as a motivational state associated with persistent social connectivity and monitoring of others' experiences. For example, Servidio et al. (2024) found that FOMO was positively associated with problematic social media use among university students, with social comparison and self-esteem helping to explain this relationship. Also, Przybylski et al. (2013) demonstrated that higher levels of FOMO were robustly associated with greater social media engagement, suggesting that individuals with stronger FOMO may be more inclined to maintain continuous awareness of their social environment. The finding also supports the I-PACE model's emphasis on person-related characteristics as important predisposing factors. Within the present context, trait FOMO can be interpreted as a stable vulnerability that makes students more attentive to social and informational cues in digital environments. When social media provides an efficient means of reducing uncertainty about what peers are doing, repeated checking may become reinforced.

The regression findings provide further evidence that the relationship between trait FOMO and social media addiction extends beyond differences in the intensity or duration of social media use. Importantly, trait FOMO remained a significant predictor after controlling for demographic characteristics, daily usage time, frequency of use, duration of social media use, device type, and preferred platform. This indicates that students with stronger FOMO reported higher levels of problematic social media use. From an I-PACE perspective, this reinforces the role of person-related predispositions in shaping vulnerability to problematic online behaviours. The findings indicate that stronger FOMO is associated with greater sensitivity to socially relevant cues and problematic social media engagement.

State FOMO as the Stronger Predictor

The second major finding is that state FOMO demonstrated a stronger relationship with social media addiction than trait FOMO. State FOMO correlated with social media addiction at $r = .621$ and remained a significant predictor in the regression model ($\beta = .544$). The corresponding model explained 43.4% of the variance, compared with 35.1% in the trait-FOMO model. H2 was therefore supported, and the results suggest that situation-specific FOMO has a stronger association with problematic social media engagement than a general predisposition to FOMO.

This finding is theoretically consistent with the I-PACE model, which proposes that problematic addictive behaviours emerge through the interaction between predisposing person-related characteristics, affective and cognitive responses to specific stimuli, and executive processes such as decision-making and inhibitory control (Brand et al., 2019). In this framework, person-related characteristics represent relatively distal vulnerabilities, whereas affective and cognitive responses to situation-specific cues are more proximal to the decision to engage in a particular behaviour. In fact, state FOMO reflects more immediate, situation-specific experiences related to staying connected and remaining updated, including concerns about missing information, monitoring current topics and friends' activities, and maintaining awareness of online social interactions. These experiences place students in closer psychological proximity to the act of social media engagement.

The highest state-FOMO item concerned the importance of understanding online language used by friends ($M = 4.046$), followed by notification management ($M = 3.933$). These findings indicate that social integration and continuous awareness are important components of students' online experience. When students perceive that being offline could mean losing access to relevant information, conversations, or social participation, they may

be more likely to check platforms repeatedly. Over time, such repeated checking may contribute to withdrawal, tolerance, relapse, mood modification, and conflict.

FOMO and the Dimensions of Social Media Addiction

The correlation matrix provides further evidence that FOMO is associated with multiple dimensions of problematic social media use rather than a single symptom. State FOMO was most strongly associated with withdrawal ($r = .511$, $p < .001$) and mood modification ($r = .505$, $p < .001$), followed by relapse ($r = .474$), tolerance ($r = .473$), conflict ($r = .439$), and salience ($r = .405$). This pattern is theoretically meaningful because withdrawal and mood modification reflect the affective consequences of being unable to access social media and the use of social media to regulate emotional states.

The stronger predictive contribution of state FOMO indicates that situation-specific psychological experiences are more strongly associated with problematic social media engagement than trait FOMO in the present sample. The association with mood modification similarly suggests that students may use social media not only to obtain information but also to manage unpleasant emotional experiences. These findings are compatible with previous work linking emotional regulation and problematic social media use (Wartberg et al., 2021) and with research connecting FOMO with problematic social networking-site use (Hussain et al., 2024).

The high level of conflict is also important. The conflict dimension includes interference with studies, hobbies, leisure activities, exercise, and interpersonal relationships. The dissertation reported that 36.1% of respondents indicated that they very often gave less priority to hobbies, leisure activities, and exercise because of social media. This finding illustrates how problematic use may extend beyond screen time to affect everyday functioning. Communication scholars should therefore consider the consequences of continuous connectivity, rather than evaluating digital engagement solely through frequency or duration.

The findings provide further empirical support for the relevance of the I-PACE model to understanding social media addiction among Chinese students. In particular, the distinction between trait FOMO and state FOMO provides a useful way of differentiating relatively stable person-related characteristics from situation-specific affective and cognitive responses. Both dimensions were significantly associated with social media addiction, but state FOMO demonstrated the stronger relationship ($r = .621$; $\beta = .544$) compared with trait FOMO ($r = .509$; $\beta = .367$). This pattern is consistent with the I-PACE framework, which proposes that person-related characteristics represent relatively distal vulnerabilities, whereas affective and cognitive responses to specific situations are more closely related to behavioural engagement. In the present study, state FOMO reflects immediate concerns about missing information, social interactions, notifications, current topics, and others' activities. These situation-specific experiences are therefore more closely related to students' problematic social media engagement. The findings consequently strengthen the theoretical relevance of distinguishing stable FOMO tendencies from momentary FOMO experiences when examining problematic social media use.

The findings have several practical implications for promoting healthier social media use among university students. The stronger association between state FOMO and social media addiction suggests that interventions should address not only students' general tendency to experience FOMO but also the immediate situations that trigger concerns about missing information, social interaction, notifications, and online activities. For university counsellors and student-support services, FOMO awareness can be incorporated into counselling and student development programmes. Counsellors could help students identify situations that trigger FOMO, recognise excessive checking behaviours, manage notification-related interruptions, and develop realistic expectations about the importance of remaining continuously connected. Brief digital well-being workshops could also introduce strategies such as scheduled periods of disconnection, notification management, and self-monitoring of social media use.

For digital well-being practitioners, the findings support interventions that combine psychological awareness with behavioural self-regulation. Students could be encouraged to monitor their FOMO experiences alongside their social media behaviour and identify patterns between perceived pressure to stay updated and repeated checking. Intervention programmes could also focus on coping strategies for managing uncertainty and social comparison without requiring continuous online engagement. While, for social media platform developers, the

findings highlight the importance of designing features that support user control over continuous connectivity. Examples include flexible notification settings, scheduled notification pauses, usage reminders, and tools that allow users to establish periods of reduced connectivity. Such features could help minimise unnecessary interruptions and reduce the perceived pressure to remain constantly updated. These recommendations should be regarded as preventive and supportive measures rather than evidence that FOMO directly causes social media addiction.

The study also extends FOMO research into a Malaysian higher-education context involving Chinese students. Existing research has examined FOMO across different countries and platforms, but comparatively fewer studies have focused on Chinese students studying abroad while simultaneously distinguishing trait and state FOMO. By examining WeChat, Douyin, and Xiaohongshu as part of the respondents' social media environment, the study demonstrates how FOMO can be investigated within culturally and technologically specific communication practices.

Taken together, the findings indicate that both relatively stable and situation-specific forms of FOMO are relevant to understanding problematic social media use among Chinese students. The stronger contribution of state FOMO further highlights the importance of examining immediate psychological experiences surrounding social media engagement, rather than focusing solely on stable individual characteristics or frequency of use. At the same time, the cross-sectional and self-reported nature of the present data requires these relationships to be interpreted as associations rather than causal effects. Future research using longitudinal, experience-sampling, cross-cultural, and intervention-based approaches can further clarify these relationships and strengthen the practical application of the I-PACE framework.

Limitations and Directions for Future Research

Despite its contributions, this study has several limitations. First, the participants were recruited from a single institution, Universiti Putra Malaysia, and were limited to Chinese students. Although this provides valuable evidence from an underexplored Malaysian higher-education context, the findings cannot be assumed to represent Chinese students in other universities, countries, or cultural settings. Future research should therefore adopt multi-site sampling and cross-cultural comparative designs to examine whether the relationships between trait FOMO, state FOMO, and social media addiction are consistent across different institutional and cultural contexts.

Second, the cross-sectional design limits the ability to determine causal direction. The significant relationships identified in this study demonstrate that higher levels of trait and state FOMO are associated with higher levels of social media addiction, but they do not establish whether FOMO precedes problematic social media use or whether problematic use subsequently intensifies FOMO. Future research should therefore employ longitudinal designs to examine these relationships over time. Experience-sampling or ecological momentary assessment would be particularly valuable because such approaches could capture state FOMO episodes as they occur in students' everyday social media environments and examine their temporal relationship with subsequent online engagement.

Third, the study relied on self-reported questionnaire data. Although self-report measures are appropriate for assessing psychological experiences such as FOMO, they may be affected by recall errors, social desirability, and inaccurate estimates of social media usage. Future studies could combine questionnaire measures with objective indicators, such as smartphone screen-time records, application-use logs, or other digitally recorded measures of social media activity.

Finally, future research should move beyond identifying significant associations and examine the effectiveness of targeted interventions. Intervention-based studies could evaluate FOMO-awareness programmes, self-regulation training, notification-management strategies, or digital well-being programmes among university students. Longitudinal and experimental approaches could then assess whether changes in FOMO are accompanied by corresponding changes in problematic social media use.

CONCLUSION

This study examined the relationship between trait FOMO, state FOMO, and social media addiction among Chinese students at Universiti Putra Malaysia using the I-PACE model as the theoretical foundation. The results demonstrate that all three constructs were at high levels, with state FOMO showing the highest mean (M = 3.863), followed by social media addiction (M = 3.778) and trait FOMO (M = 3.759). The findings further show that both trait and state FOMO were significantly and positively associated with social media addiction.

This result highlights the importance of immediate cognitive and affective pressures surrounding social media engagement, including the perceived need to remain updated, understand online conversations, respond to notifications, and monitor others' activities. The findings therefore suggest that problematic social media use cannot be fully understood through usage frequency alone, but it must also be examined through the psychological processes that sustain continuous connectivity.

Overall, the study contributes to the communication and digital-behaviour literature by applying the trait-state FOMO distinction within the I-PACE framework to Chinese students in a Malaysian higher-education context. The findings have practical implications for students, universities, digital-well-being practitioners, and platform designers seeking to encourage healthier patterns of social media engagement. Future research should build on these findings through longitudinal, cross-cultural, and multi-method approaches that can more precisely explain how stable FOMO tendencies and momentary FOMO experiences interact over time.

Conflict Of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

Data Availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request, subject to applicable institutional and ethical requirements.

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