

Research Article

Validation of the Thai Version of the Fear of Missing Out Scale (T-FoMOs) for Adolescents: A Psychometric Analysis

Yejin Kim^{1*}, Wanchai Dhammasaccakarn², Kasetchai Laeheem², Idsaratt Rinthaisong³, and Somsak Lila⁴

Received: 2 February 2025

Revised: 3 September 2025

Accepted: 8 September 2025

Abstract

With the rise of social media, which offers constant opportunities for interaction, academic interest has increasingly turned toward the concept of Fear of Missing Out (FoMO). FoMO is defined as a pervasive concern that others might be experiencing rewarding events from which one is absent. Despite the growing academic interest, no instrument has been developed to measure FoMO among Thai adolescents in empirical studies. The primary aim of this study was to validate and assess the psychometric properties of the Thai version of the Fear of Missing Out scale (T-FoMOs) for adolescents by adapting the original English version.

The results indicated that the scale demonstrated good internal consistency, with a Cronbach's alpha coefficient of 0.80 for the total scale, based on data from 340 Thai adolescent students ($M_{age} = 15.24$, $SD = 1.80$). Exploratory factor analysis (EFA) revealed a two-factor structure, labeled "Behavioral" ($\alpha = 0.77$) and "Psychological" ($\alpha = 0.76$), which differs from the original scale's single-factor model, accounting for 52.40% of the total variance. Confirmatory factor analysis (CFA: $CMIN/df = 2.14$, $GFI = 0.95$, $RMSEA = 0.08$, $CFI = 0.91$, $NFI = 0.85$, $PNFI = 0.64$, and $TLI = 0.88$) supported the construct validity of the scale. These findings suggest that the T-FoMOs is a reliable tool for assessing FoMO among Thai adolescents.

Keywords: *Fear of Missing Out, Psychometric Properties, Scale, Thai Adolescents*

¹ Thaksin International College, Thaksin University

² Faculty of Liberal Arts, Prince of Songkla University

³ Faculty of Management Sciences, Prince of Songkla University

⁴ Faculty of Education and Liberal Arts, Hatyai University

* Corresponding e-mail: ye.k@tsu.ac.th

Introduction

Social media applications on electronic devices, such as computers, laptops, and smartphones, have revolutionized the way people interact, offering an ever-expanding range of opportunities for social connection. Among these devices, smartphones have become the primary tool for accessing social media platforms (Capilla Garrido, Issa, Gutiérrez Esteban, & Cubo Delgado, 2021). Through various social networking services (SNS), individuals can receive instant updates on personal and social activities, stay informed about current events, and engage in real-time communication without geographic limitations (Kemp, 2017). Given these benefits, smartphones have also been integrated into educational settings in Thailand, enhancing learning experiences through SNS-based collaboration, information sharing, and problem-solving (Khaenamkhaew, Muhamad, Damrongwattana, Jaiwiraphong, & Pratum, 2021).

However, the widespread use of SNS has also led to the emergence of psychological concerns, one of the most notable being the Fear of Missing Out (FoMO). FoMO is characterized by a persistent anxiety that others may be experiencing rewarding events in one's absence, driving individuals to compulsively check social media to stay connected and informed (Przybylski, Murayama, DeHaan, & Gladwell, 2013). First identified in marketing and psychological research (Herman, 2000), FoMO has been linked to detrimental psychological and behavioral effects, such as heightened stress, diminished life satisfaction, lower academic performance, and problematic smartphone use (Franchina, Abeele, Van Rooij, Lo Coco, & De Marez, 2018). Among adolescents, in particular, FoMO has been linked to problematic internet use, disrupted sleep patterns, and higher levels of anxiety and depression (Can & Satici, 2019; Zhang, Zhou, Yang, & Wu, 2021).

Despite growing academic interest in FoMO, there is a lack of well-developed instruments for measuring its prevalence among Thai adolescents. Existing studies have largely relied on scales developed in Western contexts, which may not fully capture the cultural nuances of FoMO experiences in Thailand. To address this gap, the present study aims to develop and validate a Thai version of the Fear of Missing Out scale (T-FoMOs), ensuring its relevance and applicability within the Thai adolescent population. By establishing a reliable and culturally adapted measurement tool, this research seeks to contribute to a deeper understanding of FoMO and its impact on adolescents' psychological well-being in Thailand.

Objectives

1. To explore the components of the Fear of Missing Out scale (FoMOs) in the Thai context for use with adolescents.
2. To evaluate the psychometric properties of the Thai version of Fear of Missing Out scale (T-FoMOs) and determine its suitability for future research involving Thai adolescents.

Literature Review

The term Fear of Missing Out (FoMO) refers to “the pervasive apprehension or anxiety that others might be having rewarding experiences from which one is absent” (Herman, 2000; Przybylski et al., 2013). According to Gupta and Sharma (2021), the concept was first introduced in 2004 to describe a social and individual phenomenon related to the use of social networking sites through digital devices. FoMO has since gained significant attention with the expansion of social media platforms, where continuous exposure to others’ activities intensifies feelings of exclusion and missing out (Fioravanti et al., 2021; Kaloeti, Kurnia, & Tahamata, 2021).

Social media heightens this fear, with platforms such as Facebook, Line, Instagram, and TikTok acting as technological tools for fostering social connections, offering the promise of enhanced social engagement (Ellison, Steinfield, & Lampe, 2007; Kaloeti et al., 2021). With minimal to no cost, individuals can continuously access an abundance of content without time restrictions. While these platforms offer benefits to the general population, they may be especially advantageous for those who struggle with the fear of missing out. Considering increasing academic interest, empirical efforts have been made to create a tool for assessing this phenomenon. Consequently, the Fear of Missing Out scale (FoMOs) was developed, grounded in Self-Determination Theory [SDT] (Deci & Ryan, 1985; Przybylski et al., 2013), emphasizing the motivational, behavioral, and well-being aspects of FoMO.

Przybylski et al. (2013) developed the FoMOs as a psychometric tool designed to assess individuals’ general tendencies to experience FoMO. The primary purpose of the scale was to provide a valid and reliable measure of the pervasive anxiety that others may be having rewarding experiences from which the respondent is absent. By conceptualizing FoMO as a motivational and behavioral construct closely associated with the use of social networking sites, the FoMOs allows researchers to examine its relationship with psychological well-being, self-regulation, and patterns of technology engagement. The development of the scale

marked a significant advancement in systematically evaluating how FoMO contributes to social media use and broader psychosocial outcomes.

Previous studies have shown that FoMO, a negative emotional state stemming from unmet social connection needs, is linked to various psychological and behavioral outcomes (Huang, 2017; Fioravanti et al., 2021; Gupta & Sharma, 2021). Recent findings suggest that individuals experiencing FoMO may face psychological challenges, including anxiety, depression, and a reduced sense of well-being (Huang, 2017; Altuwairiqi, Jiang, & Ali, 2019). Altuwairiqi, Jiang, and Ali (2019) also identified FoMO as a form of problematic attachment to social media, associated with several adverse behaviors such as sleep deprivation, decreased life competence, emotional distress, physical health issues, anxiety, and poor emotional regulation (Fioravanti et al., 2021). In some cases, intimate relationships through SNS may be sought to mitigate feelings of social rejection.

Academic interest in FoMO within Thailand has been limited. To the best of our knowledge, the first study on FoMO in Thailand was conducted with university students in 2018, finding moderate levels of FoMO and a significant positive relationship between social media usage and FoMO. The study used a scale specifically designed for that purpose (Chancharoen & Aphisaamacharayothin, 2018); however, the scale had not undergone proper testing for validity or psychometric properties. More recently, a study validated the Thai version of the Fear of Missing Out scale among participants aged 18 to 40 (Ruangcham, Sumalrot, & Phattharayuttawat, 2023).

However, several studies have emphasized the importance of considering demographic and cultural differences when assessing FoMO (Can & Satici, 2019; Kaloeti et al., 2021). On a practical level, research by Fauzan and Jaroenwanit (2024) highlighted the significant influence of FoMO on consumer behavior, particularly in shaping fashion trends among young people who increasingly prefer sustainable and ethical products. Moreover, recent research in the Thai context revealed that adolescent students frequently rely on digital devices to remain connected with their peers. This constant connectivity has been associated with patterns of excessive use, often characterized by a loss of control (Kim, Dhammasaccakarn, Laeheem, & Rinthaisong, 2024a).

Despite these findings, no FoMO measurement has been developed specifically for Thai adolescents (Fioravanti et al., 2021), a group transitioning from childhood to adulthood, who may be more vulnerable to FoMO due to lower levels of self-regulation and self-control

(Kaloeti et al., 2021). Furthermore, no research on FoMO has been conducted in Southern Thailand. To address these gaps, this study aimed to develop a reliable and appropriate instrument by adapting the internationally validated FoMOs to the context of Thai adolescents in Southern Thailand.

Methodology

Population and Samples

Participants were recruited through convenience sampling from two secondary schools in Narathiwat Province, Southern Thailand. Following the recommendation of Kyriazos (2018), a minimum of 300 participants was targeted to ensure adequate sample size for developing the Thai version of the Fear of Missing Out scale (T-FoMOs) through exploratory factor analysis (EFA) and confirmatory factor analysis (CFA).

A total of 355 questionnaires—covering demographic information, smartphone use patterns, and the preliminary Thai version of the Fear of Missing Out scale (T-FoMOs)—were distributed to two secondary schools in Narathiwat Province, Southern Thailand, proportionate to the schools' student populations. After screening for completeness and response quality, 340 valid questionnaires were retained for analysis (4 were not returned, and 11 contained invalid responses). This sample size met the recommended threshold for conducting factor analyses (EFA and CFA) in the development of the T-FoMOs.

The main researcher provided informed consent forms that explained the study's objectives, assured participants of the confidentiality of their responses, and emphasized the voluntary nature of their participation. Questionnaires and consent forms were distributed to each class after obtaining verbal consent from the participants. The respondents then returned their completed questionnaires along with consent forms signed by both them and a parent or guardian. Additionally, the researchers considered the educational contexts of the chosen schools during the data collection process.

Research Instruments

This research adopted the Fear of Missing Out scale (FoMOs), originally developed by Przybylski et al. (2013), as the foundation for creating the Thai version of the instrument. The original FoMOs was validated across three distinct populations—an international sample, a national sample, and a university cohort—providing a comprehensive understanding of FoMO's impact.

Structurally, the FoMOs consists of 10 self-report items measured on a five-point Likert scale, ranging from 1 (“Not at all true of me”) to 5 (“Extremely true of me”). The items reflect a single-factor structure that captures a general disposition toward FoMO rather than multiple sub-dimensions. Psychometric evaluations demonstrated strong internal consistency ($\alpha = 0.87\text{--}0.89$), confirming its reliability across diverse populations. Sample items include, “I fear my friends have more rewarding experiences than me” and “I get anxious when I don’t know what my friends are up to.” Higher scores indicate a greater tendency toward FoMO. Given its robustness, the FoMOs has become the foundational tool in FoMO research, widely applied in studies examining the relationship between social media use, psychological well-being, and behavioral outcomes. In the present study, this scale served as the primary basis for developing a culturally appropriate Thai version for adolescents.

Translations Process

The Fear of Missing Out scale (FoMOs) was translated from English into Thai following the cross-cultural adaptation guidelines outlined by Beaton, Bombardier, Guillemin, and Ferraz (2000) to ensure both linguistic and cultural equivalence. The process comprised four stages.

First, forward translation was conducted by a bilingual translator with native-level proficiency in English and Thai and an academic background in the social sciences. This step emphasized preserving the original meaning of the items while ensuring cultural appropriateness.

Second, a blind back-translation was performed by an independent bilingual translator who had no prior exposure to the original scale. This step allowed for an objective comparison between the back-translated and original versions, facilitating the identification of discrepancies.

Third, a panel of bilingual experts in the social sciences reviewed the original scale, forward translation, and back-translation. The evaluation addressed semantic, idiomatic, experiential, and conceptual equivalence (Guillemin, Bombardier, & Beaton, 1993), ensuring that the Thai version conveyed the intended meaning and nuances of the original instrument.

Finally, a pilot test was conducted with ten participants (four high school students, three university students, and three adults) to assess clarity, comprehensibility, and cultural relevance. All participants reported ease in reading and responding to the items, with no revisions required.

Through this rigorous process, the Thai version of the FoMOs (T-FoMOs) was established as a linguistically accurate and culturally relevant instrument, suitable for use in assessing FoMO-related behaviors in Thai-speaking populations.

Data Analysis

The psychometric evaluation of the Thai version of the FoMOs (T-FoMOs) was carried out systematically (Worthington & Whittaker, 2006). First, descriptive statistics were applied to demographic data, and the dataset underwent a screening process to ensure suitability for factor analysis. The normality of each item's distribution was assessed by evaluating skewness and kurtosis, with values exceeding 2 for skewness and 7 for kurtosis deemed problematic, following Kline's (2015) recommendations. Next, internal consistency was evaluated using Cronbach's alpha, where a value of 0.70 or above was regarded as acceptable, indicating that the scale items are reliably correlated.

To further analyze the scale's factors, a split-data approach was used, dividing 340 cases into two equal groups of 170. The first group was used for Exploratory Factor Analysis (EFA), while the second group was reserved for Confirmatory Factor Analysis (CFA). Construct validity was explored using EFA, with Principal Components Analysis (PCA) and Varimax rotation. The EFA aimed to reveal any underlying dimensions or factors within the scale that capture the concept of FoMO.

For the EFA, the process began with the Kaiser-Meyer-Olkin (KMO) test to assess sampling adequacy, following the guidelines of Cerny and Kaiser (1977), along with Bartlett's test of sphericity (Bartlett, 1950). A KMO value above 0.50 and a Bartlett's test result below 0.50 indicate that the data is suitable for factor analysis. After these tests, the correlation matrix was examined, with emphasis on identifying coefficients above 0.30, which is considered an appropriate threshold for continuing with factor analysis. To decide how many factors to extract, several criteria were used: eigenvalues exceeding 1.0, the scree plot, and the cumulative percentage of variance explained. Together, these criteria help guide factor extraction and provide insights into the scale's underlying structure.

Following the EFA, CFA was conducted to evaluate the model's fit. Several criteria were used for this assessment, including CMIN/DF, the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), the Goodness of Fit Index (GFI), and the Root Mean Square Error of Approximation (RMSEA). A CMIN/DF value below 3 is considered to indicate a good fit (Kline, 2015). For CFI, TLI, and GFI, values approaching 1 suggest a better model fit, while an RMSEA value below .08 is deemed acceptable (Lei & Wu, 2007; Leach et al., 2008; Kline, 2015). These comprehensive analyses help ensure the robustness of the final Thai Phubbing Scale, confirming its reliability and validity for measuring FoMO within Thai-speaking populations.

Results

The sample included 118 male respondents (34.70%) and 222 female respondents (65.20%). In terms of educational status, 167 participants (49.10%) were enrolled in middle school, while 173 (50.90%) were in high school. Participants' ages ranged from 12 to 19 years, with an average age of 15.24 years (SD = 1.80). To improve the representativeness of the sample, students from grades 7 through 12 were specifically targeted. Eligible participants were those attending school and using a smartphone. Participation was entirely voluntary, with students willingly engaging in the research by completing a set of paper-based questionnaires. This approach aimed to gather comprehensive and reliable data while ensuring ethical research practices were upheld.

Smartphone Use Patterns among Participants

Table 1 provides an overview of the smartphone usage patterns reported by the study participants. In terms of ownership duration, the majority (69.40%) indicated that they had been using a smartphone for between 1–5 years. A smaller but notable proportion (22.90%) reported having 6–8 years of experience with smartphone use, while only 7.10% of the participants had been using smartphones for more than 8 years. These figures suggest that most of the participants have relatively long-term familiarity with smartphones, reflecting the widespread integration of digital devices into their daily lives.

Patterns of daily smartphone use also revealed interesting distinctions between weekdays and weekends. On weekdays, 65.60% of participants ($n = 223$) reported using their smartphones an average of 2–7 hours per day, highlighting a moderate but sustained level of engagement during school or workdays. Similarly, on weekends, the proportion of participants reporting the same amount of usage dropped slightly to 53.80% ($n = 183$), while a substantial group of 40.90% ($n = 139$) reported spending more than 8 hours per day on their devices. This increase suggests that weekends provide adolescents with greater flexibility and time to engage in prolonged smartphone activities. Only a small number of participants (4.70%, $n = 16$) reported using their smartphones for less than 2 hours per day on weekends, indicating that minimal use is relatively uncommon in this group.

When asked about their use of social networking sites (SNS), participants demonstrated varying levels of daily engagement. The largest segment, 30.60% ($n = 104$), reported spending one to 2 hours per day on SNS platforms, suggesting that moderate usage is most typical among adolescents. However, a considerable proportion of participants reported higher usage

patterns, with 11.70% spending more than 6 hours daily on SNS. This finding reflects the strong pull of online interactions and their potential influence on participants' lifestyles and behaviors. Finally, it is worth noting that missing data were negligible across all measures: 2 participants (0.60%) did not provide responses for smartphone ownership, weekday usage, and weekend usage, while 1 participant (0.30%) did not provide information about their daily SNS use.

Table 1 Smartphone Use Patterns among the Participants

Category	Frequency	Present
Duration of possessing own smartphones		
Less than 3 years	107	31.50
3–5 years	129	37.90
6–8 years	78	22.90
Over 8 years	24	7.10
Missing data	2	0.60
Duration of using smartphones on weekdays in 1 day		
Less than 2 hr	21	6.20
2–4 hr	105	30.90
5–7 hr	118	34.70
8–10 hr	48	14.10
Over 10 h hr	46	13.50
Missing data	2	0.60
Duration of using smartphones on weekends in 1 day		
Less than 2 hr	16	4.70
2–4 hr	84	24.70
5–7 hr	99	29.10
8–10 hr	72	21.20
Over 10 hr	67	19.70
Missing data	2	0.60
Duration of using social network services (SNS) in 1 day		
Less than 1 hr	91	26.80
1–2 hr	104	30.60
3–4 hr	82	24.10
5–6 hr	22	6.50
Over 6 hr	40	11.70

Table 1 (cont.)

Category	Frequency	Present
Missing data	1	0.30

Reliability Analysis

Table 2 presents the reliability analysis, which highlights the internal consistency and reliability of the T-FoMOs. The Cronbach's alpha coefficient for the scale was 0.80, reflecting a high level of internal consistency and suggesting that the items are consistently measuring the same underlying construct. Furthermore, the corrected item-total correlation coefficients, ranging from 0.39 to 0.55, provide additional evidence of the scale's internal reliability. These values indicate a reasonable consistency in participants' responses to the items.

Moreover, Cronbach's alpha values for the scale, if any single item were removed, remained above 0.77, indicating that removing any item would not significantly enhance the internal consistency reliability of the scale. Additionally, the skewness values for the items ranged from 0.16 to 1.13, while kurtosis values ranged from -1.35 to 0.84. Both skewness and kurtosis values fell within the acceptable range (absolute values below 2 and 7, respectively). In conclusion, the reliability analysis provides compelling evidence of the internal consistency of the Thai version of the FoMOs, confirming its reliability and validity in measuring FoMO among Thai adolescents.

Table 2 Reliability for the Thai Version of Fear of Missing Out Scale

	Mean	Standard Deviation	Corrected Item Total Correlation	Squared	Cronbach's Alpha if Item Deleted	Skewness	Kurtosis
				Multiple Correlation			
Item 1	1.97	1.08	0.43	0.36	0.78	1.13	0.72
Item 2	1.92	1.04	0.39	0.32	0.79	0.95	0.15
Item 3	1.98	1.17	0.49	0.41	0.78	1.06	0.20
Item 4	2.10	1.18	0.46	0.37	0.78	0.92	-0.09
Item 5	2.89	1.36	0.42	0.23	0.78	0.19	-1.16
Item 6	2.54	1.24	0.55	0.32	0.77	0.39	-0.83
Item 7	2.71	1.32	0.49	0.34	0.78	0.29	-1.07
Item 8	2.31	1.28	0.47	0.26	0.78	0.69	-0.57
Item 9	2.93	1.45	0.46	0.31	0.78	0.16	-1.35

Table 2 (cont.)

Mean	Standard Deviation	Corrected Item Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Skewness	Kurtosis
			0.36			
Item 10	2.51	1.30	0.54	0.77	0.52	0.84

Note: Overall alpha (10 items) = 0.80

Exploratory Factor Analysis of the T-FoMOs

An Exploratory Factor Analysis (EFA) was conducted on the Thai version of FoMOs to examine its internal structure, using a randomly selected sample of 170 cases. Prior to performing the EFA, several conditions were evaluated to ensure the data was appropriate for factor analysis. All items on the scale showed significant correlations, ranging from 0.10 to 0.54, with a determinant score of 0.08, fulfilling the criteria for conducting EFA.

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was found to be 0.83, exceeding the recommended threshold of 0.60. Additionally, Bartlett's Test of Sphericity was significant ($\chi^2 (45) = 429.55$, $p < .001$), further confirming the appropriateness of the data for factor analysis (Kaiser & Rice, 1974). The extraction communalities for all 10 items were above 0.41 (see Table 3), and therefore, no items needed to be removed, as each exceeded the 0.20 threshold suggested by Child (2006).

Interestingly, the EFA results indicated the extraction of two factors, both with eigenvalues exceeding 1.68 (see Table 3). This outcome revealed a structural difference from the original version, which featured a single-factor model. The first factor, labeled "Behavioral" by the authors, included 6 items, while the second factor, referred to as "Psychological," consisted of 4 items. The two labels, serving as overarching thematic terms that encompass all the statements within each factor, were assigned after thoroughly reviewing the items in each factor. The two related factors together accounted for 52.40% of the total variance: (1) Behavioral, explaining 35.63%, and (2) Psychological, explaining 16.78%. The factor loadings for all items showed strong psychometric properties, with each exceeding 0.54 (see Table 3). These loadings surpassed the commonly recommended threshold of 0.35 for a sample of this size ($n = 170$) (Guadagnoli & Velicer, 1988; Field, 2013), indicating that the two-factor solution adequately and coherently represents the underlying Behavioral and Psychological constructs.

Table 3 Exploratory Factor Analysis on the Thai Version of FoMOs

Component	Factor		Communalities
	1	2	Extraction
Behavioral			
Item 7	0.77		0.57
Item 10	0.74		0.57
Item 9	0.74		0.55
Item 5	0.63		0.41
Item 8	0.55		0.44
Item 6	0.54		0.42
Psychological			
Item 1		0.78	0.63
Item 3		0.77	0.61
Item 2		0.72	0.53
Item 4		0.70	0.51
Eigenvalues	3.56	1.68	
% of Variance	35.63	16.78	
Cumulative %	35.63	52.40	
Cronbach's Alpha (n)	0.77(6)	0.76(4)	

Note: Extraction Method = Principal Component Analysis; Rotation Method = Varimax with Kaiser

Normalization; a: Rotation converged in 3 iterations; N = 170

Confirmatory Factor Analysis of the T-FoMOs

Subsequently, a Confirmatory Factor Analysis (CFA) was performed on the complete dataset. The analysis utilized maximum likelihood estimation in combination with a robust estimation method. The results from the CFA for the Thai version of the Fear of Missing Out scale (T-FoMOs) exhibited a reasonable fit and was parsimonious, as evidenced by various fit indices: CMIN/df = 2.14, GFI = 0.95, RMSEA = 0.08, CFI = 0.91, NFI = 0.85, PNFI = 0.64, and TLI = 0.88. The factor loadings of the items on the Thai version of the Fear of Missing Out scale (T-FoMOs) were notably high (see Figure 1). All loadings in the model exceeded 0.53, indicating strong associations between the latent constructs and their corresponding observed items. This finding reinforces the robustness and validity of the Thai version of the FoMO scale.

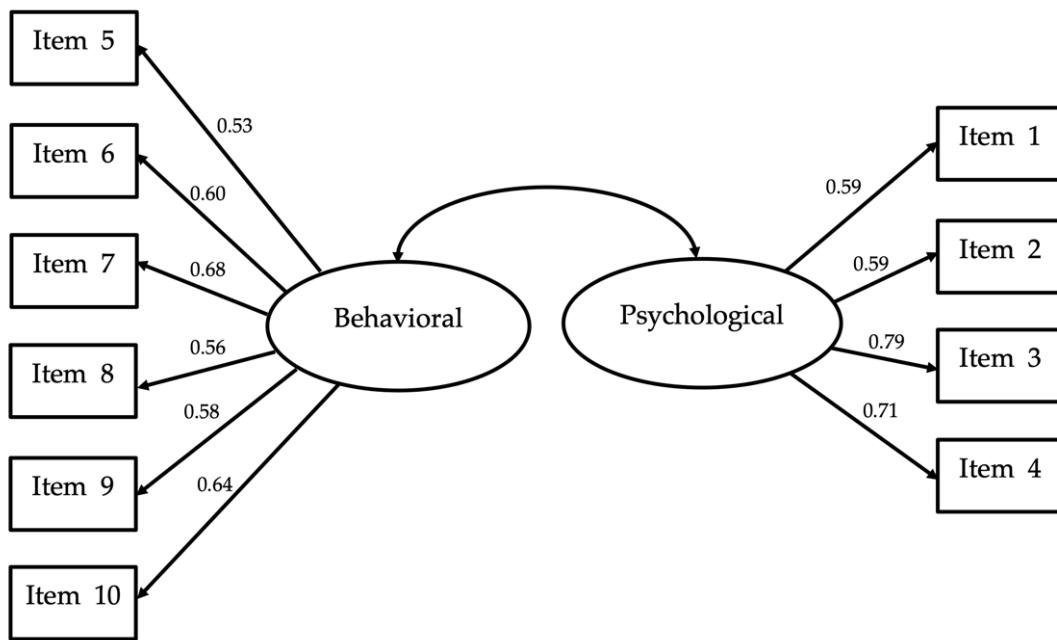


Figure 1 Confirmatory factor analysis of the Thai version of the Fear of Missing Out scale for adolescents (T-FoMOs)

Discussion

The present study assessed the validity of the Thai version of the Fear of Missing Out scale (T-FoMOs) for use in screening FoMO among Thai adolescents aged 12–19 years. The T-FoMOs was adapted from the original 10-item English version and designed as a cross-sectional self-report questionnaire. This research aimed to explore and confirm the components of the FoMOs that are appropriate for the Thai context through the translation of the original FoMOs into Thai.

Given the growing use of SNS via smartphones, there is a need for a brief yet reliable tool to measure FoMO among Thai adolescents (Fioravanti et al., 2021). This need is supported by the results of the study, which show that most Thai adolescent students use their smartphones for 5–7 hours per day on weekdays and weekends. Additionally, more than 11% of students reported using SNS for more than 6 hours daily, with most teenagers using SNS for 1–4 hours. Considering recent research findings (Kim, Dhammasakkarn, Laeheem, & Rinthaisong, 2024b), which indicate that over 70% of Thai teenagers reported symptoms of smartphone addiction, Thai adolescents may be at high risk for FoMO. These

can potentially impact various aspects of their lives, including emotional, psychological, behavioral, and academic performance.

The findings of this study confirm the strong validation and psychometric properties of the Thai version of the Fear of Missing Out scale (T-FoMOs) among 340 adolescent students in Southern Thailand. In terms of internal consistency, the Cronbach's alpha ($\alpha = 0.80$) met the recommended threshold for empirical use, indicating good internal consistency for the T-FoMOs. With a Cronbach's alpha exceeding 0.70, the results reflect a high degree of homogeneity among the scale's items.

The study focusing on adults ($M_{age} = 33.64$, $SD = 12.33$) found that the Turkish version of the FoMOs demonstrated good reliability, with a Cronbach's alpha of $\alpha = 0.78$ (Can & Satici, 2019). More recently, Chashmi, Aruguete, Sadri, Montag, and Shahrajabian (2023) validated the Iranian version of the FoMOs with 400 student participants ($M_{age} = 23.51$, $SD = 3.93$), reporting a Cronbach's alpha of 0.91 for a single-factor structure with a good model fit. In comparison, the T-FoMOs in this study showed significantly stronger reliability than the Flemish version for adolescents, which had a lower Cronbach's alpha of $\alpha = 0.56$ (Franchina et al., 2018).

Notably, the EFA revealed a two-factor structure, differing from the single-factor structure of the original scale. The first factor, labeled "Behavioral," comprised six items with an eigenvalue of 3.56, while the second factor, labeled "Psychological," consisted of four items with an eigenvalue of 1.68. These labels were assigned by the researchers based on the overarching themes reflected in the questionnaire items. Similar findings were reported in a recent study: the European Portuguese version of the FoMOs (FoMOs-P) was validated with 500 participants ($M_{age} = 22.37$, $SD = 5.68$), supporting a two related-factor structure—(1) Internalizing FoMO (Int-FoMO; items 1–4) and (2) Externalizing FoMO (Ext-FoMO; items 5–10) (Almeida, Pires, Marques, & Gomes, 2024).

This intriguing finding can be interpreted in light of the fact that the original scale was developed based on SDT, focusing on both the psychological and behavioral aspects of FoMO (Deci & Ryan, 1985; Przybylski et al., 2013).

Although the original scale does not explicitly separate these two aspects, the first four items (1 to 4) directly address psychological elements, such as fear, worry, and anxiety. In contrast, the remaining six items (5 to 10) primarily assess behavioral aspects of FoMO,

including statements like "keeping up with what is going on", "missing an opportunity to meet up", and "continuing to keep tabs".

Furthermore, the CFA indicated that the two-factor model demonstrated a good fit, with significant factor loadings for all items. The lowest loading was 0.53 for item 5 in the "Behavioral" factor, while the highest was 0.79 for item 3 in the "Psychological" factor. These results confirm that the T-FoMOs possesses strong psychometric properties as a reliable measurement tool.

However, several limitations should be noted. First, the sample size was limited to secondary students from two schools in a single province of Thailand, which may affect the generalizability of the results. Second, the study employed a cross-sectional design and relied on self-reported data, which could introduce potential biases. Future research with larger and more diverse samples, along with longitudinal designs, could offer deeper insights into the dynamics of FoMO within the Thai adolescent population. Lastly, future research should focus on younger populations, particularly primary school children, due to the widespread use of social media among this age group.

Recommendations

Recommendations for Applying the Results

The Thai version of the Fear of Missing Out scale (T-FoMOs) provides a reliable and culturally adapted tool for assessing FoMO among Thai adolescents.

With an average completion time of approximately 10 minutes, the instrument is both practical and efficient for use in research and applied settings. By capturing two distinct dimensions-psychological and behavioral-it offers a comprehensive evaluation of FoMO in this population.

Recommendations for Future Research

Future investigations should extend beyond cross-sectional validation and examine the longitudinal effects of FoMO on adolescent mental health, academic performance, and peer relationships. Research could also focus on the moderating role of cultural values and family dynamics in shaping the manifestation and consequences of FoMO within Thai society.

References

Almeida, F., Pires, L., Marques, D. R., & Gomes, A. A. (2024). The European Portuguese version of the Fear of Missing Out scale (FoMOs-P) in higher education students. *Current Psychology*, 43, 18025–18041.

Altuwairiqi, M., Jiang, N., & Ali, R. (2019). Problematic attachment to social media: Five behavioural archetypes. *International Journal of Environmental Research and Public Health*, 16(12), 2136.

Bartlett, M. S. (1950). Tests of significance in factor analysis. *British Journal of Psychology*, 3(2), 77–85.

Beaton, D. E., Bombardier, C., Guillemin, F., & Ferraz, M. B. (2000). Guidelines for the process of cross-cultural adaptation of self-report measures. *Spine*, 25(24), 3186–3191.

Can, G., & Satici, S. A. (2019). Adaptation of Fear of Missing Out scale (FoMOs): Turkish version validity and reliability study. *Psychology: Research and Review*, 32, 3.

Capilla Garrido, E., Issa, T., Gutiérrez Esteban, P., & Cubo Delgado, S. (2021). A descriptive literature review of phubbing behaviors. *Helijon*, 7(5), e07037.

Cerny, B. A., & Kaiser, H. F. (1977). A study of a measure of sampling adequacy for factor-analytic correlation matrices. *Multivariate Behavioral Research*, 12(1), 43–47.

Chancharoen, R., & Aphisamacharayothin, P. (2018). The relationship between social media use and fear of missing out among university students in Phitsanulok Province. *Human Resource and Organization Development Journal*, 10(1), 69–94. [in Thai]

Chashmi, S. J. E., Aruguete, M., Sadri, M., Montag, C., & Shahrajabian, F. (2023). Psychometric properties of the fear of missing out (FOMO) scale in Iranian students: Reliability, validity, factor structure, and measurement invariance. *Telematics and Informatics Reports*, 10, 100066.

Child, D. (2006). *The essentials of factor analysis* (3rd ed.). New York: Continuum.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Berlin: Springer Science & Business Media.

Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook “friends:” Social capital and college students’ use of online social network sites. *Journal of Computer-Mediated Communication*, 12(4), 1143–1168.

Fauzan, N., & Jaroenwanit, P. (2024). Streamline of fear of missing out through young consumer thrifting fashion future trends: A bibliometric and visualization analysis. *Thammasat Review*, 27(1), 52–76.

Field, A. (2013). *Discovering statistics using SPSS* (4th ed.). London: SAGE.

Fioravanti, G., Casale, S., Benucci, S. B., Prostamo, A., Falone, A., Ricca, V., & Rotella, F. (2021). Fear of missing out and social networking sites use and abuse: A meta-analysis. *Computers in Human Behavior*, 122, 106849.

Franchina, V., Abeele, M., Van Rooij, A. J., Lo Coco, G., & De Marez, L. (2018). Fear of missing out as a predictor of problematic social media use and phubbing behavior among Flemish adolescents. *International Journal of Environmental Research and Public Health*, 15(10), 2319.

Guadagnoli, E., & Velicer, W. F. (1988). Relation of sample size to the stability of component patterns. *Psychological Bulletin*, 103(2), 265–275.

Guillemain, F., Bombardier, C., & Beaton, D. (1993). Cross-cultural adaptation of health-related quality of life measures: Literature review and proposed guidelines. *Journal of Clinical Epidemiology*, 46(12), 1417–1432.

Gupta, M., & Sharma, A. (2021). Fear of missing out: A brief overview of origin, theoretical underpinnings and relationship with mental health. *World Journal of Clinical Cases*, 9(19), 4881–4889.

Herman, D. (2000). Introducing short-term brands: A new branding tool for a new consumer reality. *Journal of Brand Management*, 7(5), 330–340.

Huang, C. (2017). Time spent on social network sites and psychological well-being: A meta-analysis. *Cyberpsychology, Behavior, Social Network*, 20(6), 346–354.

Kaiser, H. F., & Rice, J. (1974). Little Jiffy, Mark IV. *Educational and Psychological Measurement*, 34(1), 111–117.

Kaloeti, D. V. S., Kurnia, S. A., & Tahamata, V. M. (2021). Validation and psychometric properties of the Indonesian version of the Fear of Missing Out scale in adolescents. *Psicologia: Reflexão e Crítica*, 34(1), 1–11.

Kemp, S. (2017). *Digital in 2017: Global overview*. Retrieved from <https://wearesocial.com/special-Reports/digital-in-2017-global-overview>

Khaenamkhaew, D., Muhamad, C., Damrongwattana, J., Jaiwiraphong, D., & Pratum, B. (2021). The quality of graduates in community development according to the national qualifications framework for higher education in numerical analysis, communication and information technology skills. *Journal of Roi Kaensarn Academi*, 7(2), 32–41.

Kim, Y., Dhammasaccakarn, W., Laeheem, K., & Rinthaisong, I. (2024a). Exploring problematic smartphone use (PSU) among Muslim adolescents in southern Thailand: Students and parents' insights. *Asia Social Issues*, 17(6), e262274.

Kim, Y., Dhammasaccakarn, W., Laeheem, K., & Rinthaisong, I. (2024b). The impact of family functioning factors on smartphone addiction and phubbing among Muslim adolescents in Thailand. *Children*, 11(5), 522.

Kline, R. B. (2015). *Principles and practice of structural equation modeling* (4th ed.). New York: Guilford Press.

Kyriazos, T. (2018). Applied psychometrics: Sample size and sample power considerations in factor analysis (EFA, CFA) and SEM in general. *Psychology*, 9, 2207–2230.

Leach, C. W., van Zomeren, M., Zebel, S., Vliek, M. L. W., Pennekamp, S. F., Doosje, B., ... Spears, R. (2008). Group-level self-definition and self-investment: A hierarchical (multicomponent) model of in-group identification. *Journal of Personality and Social Psychology*, 95(1), 144–165.

Lei, P. W., & Wu, Q. (2007). Introduction to structural equation modeling: Issues and practical considerations. *Educational Measurement: Issues and Practice*, 26(3), 33–43.

Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior*, 29(4), 1841–1848.

Ruangcham, C., Sumalrot, T., & Phattharayuttawat, S. (2023). The psychometric properties of Fear of Missing Out scale (FoMOs): Thai version. *Academic Psychiatry and Psychology Journal*, 39(2), 31–44. [in Thai]

Zhang, M. X., Zhou, H., Yang, H. M., & Wu, A. M. S. (2021). The prospective effect of problematic smartphone use and fear of missing out on sleep among Chinese adolescents. *Current Psychology*, 42(7), 5297–5305.

Worthington, R. L., & Whittaker, T. A. (2006). Scale development research: A content analysis and recommendations for best practices. *The Counseling Psychologist*, 34, 806–838.