

An Exploratory Study on the Interaction Between Fear of Missing Out (FoMO) and Rumination in Increasing Social Anxiety and Excessive Social Media Use Among University Students

Mohammad Al-Safi Abdul Kareem¹, Najood Mohammed Abdulaziz Al-Munif²

Abstract

The study aimed to explore the impact of the interaction between Fear of Missing Out (FoMO) and rumination on increasing the levels of social anxiety and excessive use of social media among university students. The study was conducted on a sample of 423 university students, utilizing the following scales: FoMO scale, developed by Przybylski et al. (2013) translated and adapted by Professor Dr. Mohammad Al-Safi (2024) Social Anxiety Scale by Liebowitz, translated and adapted by Professor Dr. Ibrahim El-Shafie (2015) Ruminative Thought Styles Questionnaire (RTSQ) by Brinker & Dozois (2009) translated and adapted by Professor Dr. Ibrahim El-Shafie (2015) The study found the following results: There is a statistically significant positive correlation between Fear of Missing Out (FoMO) and social anxiety, with a correlation coefficient of (0.635), significant at the 0.01 level. There is a statistically significant positive correlation between Fear of Missing Out (FoMO) and excessive use of social media, with a correlation coefficient of (0.730), significant at the 0.01 level. There is a statistically significant positive correlation between rumination and social anxiety, with a correlation coefficient of (0.567), significant at the 0.01 level. There is a statistically significant positive correlation between rumination and excessive use of social media, with a correlation coefficient of (0.824), significant at the 0.01 level. There is a significant interaction between FoMO and rumination on social anxiety, with the F-values indicating that the interaction has a significant effect at the 0.01 level. The model highlights that FoMO and rumination are key psychological factors that, when interacting, contribute to the overuse of social media platforms among individuals. This interaction indicates that those experiencing higher levels of both FoMO and rumination are more likely to engage in excessive social media usage, which is statistically significant at the 0.01 level.

Keywords: *Fear of Missing Out (Fomo), Rumination, Social Anxiety, Excessive Use of Social Media.*

Introduction

The world is living in a digital age that has become a qualitative leap in all areas of life, creating a cultural and social environment completely different from earlier times. The use of social media has become an integral part of our daily lives, and it is evident in the current digital era that individuals increasingly rely on these platforms to interact with others and follow news and current events. This growing use has given rise to many new psychological and social phenomena, most notably the phenomenon of Fear of Missing Out (FoMO). This phenomenon refers to the constant feeling of anxiety that others may be enjoying experiences and events around them without the individual being involved, leading them to excessively follow social activities online (Przybylski et al., 2013). It is characterized by feelings of discomfort, inadequacy, and anxiety regarding desirable and beneficial opportunities and developments. FoMO is a fear of missing out on available opportunities, which can lead to internal hesitation that grips youth due to significant social experiences (Mazlum & Atalay, 2022). It encompasses a comprehensive fear stemming from the idea that others may be having enjoyable and positive experiences from which one is excluded. FoMO is characterized by a continuous connection to what others are doing (Riordan et al., 2020).

Psychologically, fear of missing out arises from an individual's inability to satisfy psychological needs, such as the need for social connection, despite claiming to fulfill those needs. This may be due to poor adaptation to one's environmental resources, making them more sensitive to the social information around them (Riordan et al., 2020). The term FoMO can lead to significant negative effects on individuals' mental and social health, including increased levels of anxiety, depression, and stress. Studies have shown that individuals experiencing FoMO tend to use social media excessively, leading to sleep disturbances and

¹ Prof. of Mental Health, Imam Muhammad Ibn Saud Islamic University (IMSIU), Email: msafy@imamu.edu.sa

² Assistant Professor - Department of Psychology Imam Muhammad Ibn Saud Islamic University (IMSIU), Email: nmalmuneeef@imamu.edu.sa

increased feelings of loneliness and depression (Blackwell et al., 2017). Additionally, FoMO is associated with lower life satisfaction and increased stress levels, negatively affecting overall quality of life (Elhai et al., 2016).

Being excessively attached to social media platforms, spending most of your time scrolling through attractive photos, romantic stories, breathtaking places, professional achievements, and world landmarks, while also engaging in constant activities like posting, liking, commenting, and keeping up with the news of your friends and colleagues, is a common phenomenon today. The paradox is that those who engage deeply in such practices often experience a flood of troubling thoughts and are overwhelmed by many negative emotions. They continuously ask themselves: "Why does it seem like everyone is living a better life than me? Why am I just a spectator, resigned from life?" They may wonder, "What mistakes am I making while I sit behind this virtual world, feeling dissatisfied yet unable to let go?" Although social media may cause them pain, drain their energy, and steal their time, they continue to spend long hours interacting with it. Even though they know it's a source of distress and lost time, they feel sadness when distanced from it.

It is noteworthy that social media enhances the phenomenon of FoMO by providing platforms that allow individuals to showcase their personal lives in an idealized manner, which fosters feelings of jealousy and a constant desire to keep up with what others are doing. This can lead to an excessive reliance on these platforms and a sense of obligation to remain connected at all times (Błachnio & Przepiórka, 2017). The researcher believes that emotionality plays a role in shaping personal life, considering that personality is part of the infrastructure of the emotional model as defined by (Alenezi et al., 2024a, b).

Undoubtedly, the feeling that others are enjoying a more fulfilling life filled with fun, ease, and better experiences than yours is a hallmark of a fear that often dominates the psychological makeup of many people who are obsessively attached to the online world and social media platforms. Psychologists coined the term "Fear of Missing Out" (FOMO) to describe these tendencies in people's interactions with social media, especially with the rise of platforms like Instagram, Facebook, and Twitter. These platforms act as an open digital space where people can instantly and directly show case their life's achievements in neatly organized posts. With their inherent qualities of promoting "constant connectivity," (Błachnio, A., & Przepiórka, A. 2017).

these platforms paradoxically make people feel lonelier, more isolated, and perhaps more alienated than ever before, even though they cannot imagine life without them and are unable to resist using them in a continuous, frantic loop to stay updated on others' lives (Alt, D. 2015).

People tend to present the best versions of themselves on social media, showcasing the beauty of their lives, the brilliance of their moments, and the creativity of their achievements. When you immerse yourself in viewing, these seemingly perfect lives, it can lead you to subconsciously weigh, compare, and measure your real-life experiences against what you see on these platforms. Even though you know this comparison is flawed, non-adaptive, misleading, and has fundamentally negative effects on your personal life, you find it hard to stop following these individuals. This is where the concept of "Fear of Missing Out" comes in—you can't imagine your life without digitally keeping up with others through these platforms. FOMO is a real phenomenon rooted in the fear that one might "miss out on something important related to others," reflecting a deeper fear of being excluded from others' life experiences. This fear compels individuals to maintain an unhealthy and constant connection to the internet and social media platforms, despite knowing the harm it may cause (Dempsey AE.,2019).

The previous concept is often referred to as **"Scratching the Social Media Itch,"** a highly expressive phrase that captures the damage and scars caused by the fear of missing out (FOMO) and the compulsive urge to constantly browse social media platforms. This behavior is not driven by a desire to benefit from the platforms, but merely to keep track of others' news, achievements, and personal lives .

Nomophobia is not a clinically recognized psychological disorder listed in diagnostic and classification manuals for mental disorders. However, it represents a condition with symptoms that are pathological in

nature and may create conditions that predispose individuals to actual psychological disorders. The key symptoms indicating nomophobia include:

- Inability to turn off your mobile phone: The person cannot imagine life with their phone switched off.
- Constantly checking the phone: Frequently inspecting the device for text messages, emails, or missed calls, sometimes in a nearly compulsive manner.
- Ensuring the phone is always charged: The person is overly concerned with keeping the phone's battery fully charged and may even avoid disconnecting the charger.
- Taking the phone everywhere, even to the bathroom.
- Rechecking your phone: Continuously searching your clothes or bag to confirm that the phone is still with you.
- Fear of losing Wi-Fi connection: Always anxious about staying connected to the internet.
- Fear of emergencies: Worrying that something bad might happen, and you won't be able to call for help.
- Anxiety over digital identity: Constant concern about maintaining an active and flourishing digital presence on the internet and social media, often through frequent posting, commenting, and taking selfies.
- Neglecting planned activities: Forgetting or skipping activities or events you planned to attend due to being preoccupied with spending time on your mobile phone.

These behaviors reflect the excessive reliance on smartphones, which can be harmful if not addressed.

What makes it even more tempting to fall into this spiral is the automatic features of digital social media platforms, such as constant notifications and alerts. These can gradually lead a person into a cycle of addiction. You may find yourself repeatedly hearing the notification bell, prompting you to check for new updates. This impulsive behavior can become so ingrained that you might even wake up from sleep to check your phone, driven by the immediate satisfaction of staying connected. It's as if your body feels an itch or pain that you relieve by continuously scratching it

It's important to note that this instant gratification from staying connected may initially increase the immediate release of dopamine—a neurotransmitter associated with pleasure and short-term happiness. This trains and programs your brain to repeat the behavior of browsing and maintaining constant online connection.

Moreover, the creators of social media platforms are highly skilled and knowledgeable in psychology, designing these platforms much like "slot machines." You can endlessly play, update, and share your content without ever reaching a stopping point, thus trapping you in an endless cycle of scrolling and browsing.

The negative effects of pathological attachment to smartphones connected to the internet, commonly referred to as monophobia, can be summarized as follows:

Reduced Cognitive Ability: Smartphones can turn users into lazy thinkers by providing an overwhelming amount of facts, images, and information, gradually diminishing their cognitive abilities.

Decreased Socio-emotional Development: Smartphones are often used to calm and distract children, but this can lead to a proven deficiency in learning self-regulation and control skills. It results in fewer opportunities for social interaction with peers, limited play, and consequently, underdeveloped problem-solving skills.

Decreased Sleep: The blue light emitted from smartphones reduces the brain's secretion of melatonin, which disrupts sleep patterns, leading to decreased hours of sleep and disturbed sleep cycles.

Mental Laziness: The availability of applications like calculators, memory aids, and note cards makes users heavily reliant on smartphones, even for simple tasks. This reliance reduces mental effort, leading to a state of mental laziness and even emotional dullness (Can, G., & Satici, S. A. 2019).

Despite these negative effects, the proper and balanced use of smartphones, especially those connected to the internet, offers numerous benefits and has become indispensable. However, excessive use and over-reliance can lead to smartphone addiction, a behavioral addiction that has serious negative consequences on an individual's personality. (Graham LH,217)

Feinstein et al. (2013) found that negative social comparison on Facebook is linked to increased rumination, which in turn is associated with depressive symptoms. Rumination has also been connected to problematic technology use, including smartphones, where it acts as a mediator between depression and anxiety in the context of problematic smartphone use (PSU) (Elhai, Tiamiyu, & Weeks, 2018). Given its connection to social relationships, rumination may serve as a crucial mechanism explaining the associations between psychopathology and problematic social networking site (SNS) use (Błachnio, A., & Przepiórka, A. 2017).

While much research on problematic SNS use has primarily focused on its relationships with psychopathological variables, there has been little exploration of potential inverse relationships with positive psychology constructs, such as life satisfaction. Yang and Srinivasan (2016) describe life satisfaction as a relatively stable cognitive assessment of one's own life and an essential aspect of subjective well-being. Furthermore, life satisfaction and other indicators of life quality reflect an overall evaluation of one's environment, which can be positive or negative (Scheufele & Shah, 2000). A meta-analysis by Marino et al. (2018) indicated that life satisfaction is inversely related to problematic Facebook use (PFU).

Rumination is a pattern of thinking that revolves around excessive recall of negative events or thoughts. This process does not lead to solutions or improvements but contributes to enhancing feelings of anxiety and depression. Aspects of rumination include:

- Repetitive Negative Thoughts: Continuously thinking about feelings of sadness, failure, or regret.
- Inability to Move On: Getting stuck on specific thoughts, making it hard to move past situations.
- Negative Impact on Mental Health: Rumination is linked to increased levels of depression and anxiety.

Relationship with Social Media

Social Comparison

- Social media often showcases idealized moments from others' lives, encouraging individuals to compare themselves. If a person feels their life is less fulfilling than others', they may begin to think excessively about the reasons for that.

Reinforcement of Negative Feelings

- When individuals are exposed to negative or ideal content on social media, these exposures can heighten feelings of inadequacy. Consequently, they revisit these feelings repeatedly.

Need for Validation

- People who struggle with rumination may turn to social media for positive interactions (like likes or comments) as a way to alleviate feelings of anxiety. However, this behavior may lead to a cycle of excessive use, which further reinforces rumination.

Social Withdrawal

- Despite being connected through social media, individuals may feel lonely and isolated. This feeling can drive them to think more about their negative emotions, leading to increased rumination.

Negative Content

- Exposure to negative content (like troubling news or distressing discussions) can exacerbate rumination. When individuals are confronted with negative feelings from what they see or read, they may begin to overthink these matters.

Effects on Mental Health

- **Depression:** Rumination is associated with an increased risk of depression, especially among those who excessively use social media.
- **Anxiety:** Repeated thinking about negative feelings can elevate anxiety levels.
- **Decision-Making Difficulties:** Rumination can affect a person's ability to make decisions, increasing feelings of confusion and lack of direction.

Rumination and excessive social media use can create a negative cycle that impacts mental health. It is important for individuals to be aware of these dynamics and seek strategies to manage their social media use and reduce rumination, such as engaging in real-life social activities or practicing mindfulness and self-awareness

Aims

examine the relationship between Fear of Missing Out (FoMO) and both social anxiety and excessive use of social media among university students.

explore the relationship between rumination and both social anxiety and excessive use of social media among university students.

investigate the effect of the interaction between FoMO and rumination on the level of social anxiety among university students.

assess the effect of the interaction between FoMO and rumination on the excessive use of social media among university students.

evaluate the effectiveness of the path analysis model in explaining the relationship between FoMO and social anxiety among university students.

evaluate the effectiveness of the path analysis model in explaining the relationship between FoMO, rumination, and excessive use of social media among university students.

the hypotheses:

There is a statistically significant relationship between Fear of Missing Out (FoMO) and both social anxiety and excessive use of social media among university students.

There is a statistically significant relationship between rumination and both social anxiety and excessive use of social media among university students.

The interaction between FoMO and rumination has a statistically significant effect on the level of social anxiety among university students.

The interaction between FoMO and rumination has a statistically significant effect on the excessive use of social media among university students.

The path analysis model adequately explains the relationship between FoMO and social anxiety among university students.

The path analysis model adequately explains the relationship between FoMO, rumination, and excessive use of social media among university students.

Study Tools

FoMO scale The FoMO scale, developed by Przybylski et al. (2013), is a 10-item rating scale with answer choices ranging from 1="Not at all true of me" to 5="Extremely true of me." This scale measures anxiety that individuals experience when they miss out on rewarding experiences with others (e.g., going out with friends). Examples of items include "I Fig. 1. Hypothesized model. Notes: The circle represent a latent variable; squares represent observed variables. A.E. Dempsey, et al. Addictive Behaviors Reports 9 (2019) 100150 3 fear others have more rewarding experiences than me," and "When I miss out on a planned get-together, it bothers me." Przybylski et al. (2013) demonstrated adequate reliability, and validity through positive relations with social media engagement, and inverse correlations with need satisfaction, positive mood and life satisfaction. Coefficient alpha in our sample was 0.87.

2.3.3. FoMO scale The FoMO scale, developed by Przybylski et al. (2013), is a 10-item rating scale with answer choices ranging from 1="Not at all true of me" to 5="Extremely true of me." This scale measures anxiety that individuals experience when they miss out on rewarding experiences with others (e.g., going out with friends). Examples of items include "I Fig. 1. Hypothesized model. Notes: The circle represent a latent variable; squares represent observed variables. A.E. Dempsey, et al. Addictive Behaviors Reports 9 (2019) 100150 3 fear others have more rewarding experiences than me," and "When I miss out on a planned get-together, it bothers me." Przybylski et al. (2013) demonstrated adequate reliability, and validity through positive relations with social media engagement, and inverse correlations with need satisfaction, positive mood and life satisfaction. Coefficient alpha in our sample was 0.87.

2.3.3. Social Anxiety Scale by Liebowitz, translated and adapted by Professor Dr. Ibrahim El-Shafie Figure A (2015) is a The scale consists of 24 items.-item self-administered scale for depression. The correlation coefficient value was 0.75, which is statistically significant at 0.000. The internal consistency of the scale's statements was verified by calculating the correlation coefficient between each statement and the total score of the scale for a sample of 200 male and female students from King Khalid University. The correlation coefficients ranged between 0.71 and 0.21, all of which were significant at a level greater than 0.000. Additionally, reliability was tested through retesting after a time interval of two weeks for the same sample (n = 200), where the correlation coefficient was 0.21, which is significant at a level greater than 0.000. The correlation coefficient between the two aspects—fear or anxiety and anticipation—was 0.02, which is statistically significant at a level greater than 0.000. The correlation coefficient between the even-numbered and odd-numbered statements was also calculated, and after correcting with Spearman-Brown's formula, the correlation coefficient between the two halves was 0.12,

which is significant at a level greater than 0.000. (Manea, Gilbody, & McMillan, 2015). Coefficient alpha in the present sample was 0.86. 2.3.4. Rumination scale (RTSQ) The Ruminative Thought Styles Questionnaire (RTSQ) (Brinker & Dozois, 2009) consists of 20 items that measure neutral, positive, and negative aspects of rumination (e.g., “I have never been able to distract myself from unwanted thoughts,” or “I find myself reliving events again and again”). Response options range from 1=“Not at all” to 7=“Very well.” Items include “I tend to replay past events as I would have liked them to happen,” and “I find that my mind often goes over things again and again.” Internal reliability is good, with convergent validity against similar scales (Brinker & Dozois, 2009). Coefficient alpha in the sample was 0.88. 2.3.5. Life-satisfaction scale The Rumination Scale was developed by Shuaib and Raslan (2020) and consists of 22 items., Response options range from 1=“Strongly disagree” to 4=“Strongly agree.” Internal reliability of the SWLS is adequate, with validity against measures of well-being (Shuaib& Raslan, 2020). Coefficient alpha in the sample was 0.88.

Scale Social Media Addiction was developed by Abdel Razek, O. (2020). and consists of 20 items., Response options range from 0=“never” to 4=“always.” Coefficient alpha in the sample was 0.87.

Study Methodology and Procedures

Study Methodology

This study follows the descriptive method due to the nature of the current research, which aims to explore the correlational relationships between the study variables. Additionally, it seeks to examine the role of Fear of Missing Out (FoMO) and rumination in increasing levels of social anxiety and excessive social media use. The current study adopts a descriptive correlational approach.

Participants

The study sample consisted of 423 students from Imam Muhammad Ibn Saud Islamic University, representing various disciplines and academic levels, with an average age of 65.71 years and a standard deviation of 11.61.

Study Results

Discussion of the Results of the Hypothesis

The first Hypothesis: There is a statistically significant relationship between Fear of Missing Out (FoMO) and both social anxiety and excessive use of social media among university students.

To verify this hypothesis, Pearson's correlation coefficient was calculated between the scores for Fear of Missing Out (FoMO) and social anxiety. The results are presented in the following table:

Table (1). Pearson's Correlation Coefficient between Fear of Missing Out (FoMO) and Social Anxiety among University Students

Variable	N	Mean	Standard Deviation	Correlation Coefficient	Significance Level
Fear of Missing Out (FoMO)	423	24.93	13.27	0.635	0.01
Social Anxiety	423	25.13	14.93		

Note: *Significant at 0.01 level, Significant at 0.05 level

As shown in Table (1), there is a statistically significant positive correlation between Fear of Missing Out (FoMO) and social anxiety, with a correlation coefficient of (0.635), which is significant at the 0.01 level.

Next, Pearson's correlation coefficient was calculated between Fear of Missing Out (FoMO) and excessive use of social media. The results of the correlation are shown in the next table:

Table (2). Pearson's Correlation Coefficient between Fear of Missing Out (FoMO) and Excessive Use of Social Media among University Students (N=423)

Variable	N	Mean	Standard Deviation	Correlation Coefficient	Significance Level
Fear of Missing Out (FoMO)	423	21.24	14.12	0.730	0.01
Excessive Use of Social Media	423	24.13	16.13		

Note: *Significant at 0.01 level, Significant at 0.05 level

As shown in Table (2), there is a statistically significant positive correlation between Fear of Missing Out (FoMO) and excessive use of social media, with a correlation coefficient of (0.730), which is significant at the 0.01 level.

The second Hypothesis There is a statistically significant relationship between rumination and both social anxiety and excessive use of social media among university students To verify this hypothesis, Pearson's correlation coefficient was calculated between the scores for Fear of Missing Out (FoMO) and social anxiety. The results are presented in the following table:

Table (3). Pearson's Correlation Coefficient between Fear of Missing Out (FoMO) and Social Anxiety among University Students

Variable	N	Mean	Standard Deviation	Correlation Coefficient	Significance Level
rumination	423	28.56	17.32	0.567**	0.01
Social Anxiety	423	24.29	15.63		

Note: *Significant at 0.01 level, Significant at 0.05 level

As shown in Table (3), there is a statistically significant positive correlation between rumination and social anxiety, with a correlation coefficient of (0.567), which is significant at the 0.01 level.

Next, Pearson's correlation coefficient was calculated between rumination and excessive use of social media. The results of the correlation are shown in the next table:

Table (4). Pearson's Correlation Coefficient between Fear of Missing Out (FoMO) and Excessive Use of Social Media among University Students (N=423)

Variable	N	Mean	Standard Deviation	Correlation Coefficient	Significance Level
rumination	423	29.11	17.23	0.824	0.01
Excessive Use of Social Media	423	26.28	16.45		

Note: *Significant at 0.01 level, Significant at 0.05 level

As shown in Table (4), there is a statistically significant positive correlation between rumination and excessive use of social media, with a correlation coefficient of (0.824), which is significant at the 0.01 level.

The Third Hypothesis: There is a statistically significant interaction between Fear of Missing Out (FoMO) and rumination that affects the level of social anxiety among university students.

To test this hypothesis, a 2x2 factorial design analysis of variance (ANOVA) was conducted to determine the significance of the interaction between FoMO and rumination and its effect on the level of social anxiety in the research sample. The results of the ANOVA are shown below:

Table (5). Results of the 2x2 Factorial ANOVA To Determine the Effect of the Interaction Between Fomo and Rumination on Social Anxiety.

Variables	Variance	Sum of Squares	Degrees of Freedom	Mean Squares	F- value	Significance Level
Social Anxiety	A. FoMO	23,087.328	44	7,654.664	-31.53	0.01
	B. Rumination	1,033.919	63	480.322	-27.43	0.01
	Interaction A × B	3,182.098	88	396.565	-45.32	0.01
	Error Variance	58,241.112	228	182.776		
	Total Sum	505,3,211	423			

Significance levels:

- $p < 0.01$ (significant at the 0.01 level)
- $p < 0.05$ (significant at the 0.05 level)

This table shows a significant interaction between FoMO and rumination on social anxiety, with the F-values indicating that the interaction has a significant effect at the 0.01 level.

The Forth Hypothesis There is a statistically significant interaction between Fear of Missing Out (FoMO) and rumination that affects the excessive use of social media among university students.

To test this hypothesis, a 2x2 factorial design analysis of variance (ANOVA) was conducted to determine the significance of the interaction between FoMO and rumination and its effect on the excessive use of social media in the research sample. The results of the ANOVA are shown below:

Table (6). Results of the 2x2 Factorial ANOVA to Determine the Effect of the Interaction Between Fomo and Rumination on Social Anxiety.

Variables	Variance	Sum of Squares	Degrees of Freedom	Mean Squares	F- value	Significance Level
The excessive use of social media	A. FoMO	33067.218	60	7452.604	-22.13	0.01
	B. Rumination	1165.450	52	370.780	-23.33	0.01
	Interaction A × B	2172.113	77	296.165	-25.32	0.01
	Error Variance	28241.172	234	162.716		
	Total Sum	8405171	423			

Significance levels:

- $p < 0.01$ (significant at the 0.01 level)

- $p < 0.05$ (significant at the 0.05 level)

This table shows a significant interaction between FoMO and rumination on The excessive use of social media, with the F-values indicating that the interaction has a significant effect at the 0.01 level.

The path analysis model adequately explains the relationship between FoMO and social anxiety among university students.

The Fifth Hypothesis There is a significant interaction between FoMO and rumination on the social anxiety, with the F-values indicating that the interaction has a significant effect at the 0.01 level.

To test this hypothesis, a model was constructed to show the pathways of the relationship between FoMO and rumination on the social anxiety, using AMOS-v20 software. The results of the path analysis for this structural model are presented below:

Table (7). Goodness-of-Fit Indices for the Path Analysis Model

No	Goodness-of-Fit Indicators	Indicator Symbol	Indicator Value
1	Ratio of Chi-Square to Degrees of Freedom (df)	χ^2/df	127.0
2	Comparative Fit Index (CFA)	CFA	0.000
3	Goodness-of-Fit Index (GFA)	GFA	1.0
4	Adjusted Goodness-of-Fit Index (AGFI)	AGFI	1.0
5	Normed Fit Index (NFI)	NFI	0.898
6	Expected Cross-Validation Index (ECVI)	ECVI	22.0
7	Root Mean Square Error of Approximation (RMSEA)	RMSEA	0.000
8	Tucker-Lewis Index (TLI)	TLI	1.0
9	Incremental Fit Index (IFI)	IFI	-1.0

The results in Table (7) reflect that the previous indicators demonstrate a good fit between the hypothesized model and the data, as the model meets the conditions for goodness-of-fit.

The following diagram illustrates the path model for the interaction of FoMO and rumination on social anxiety According to the hypothesized path model.

Figure (1)

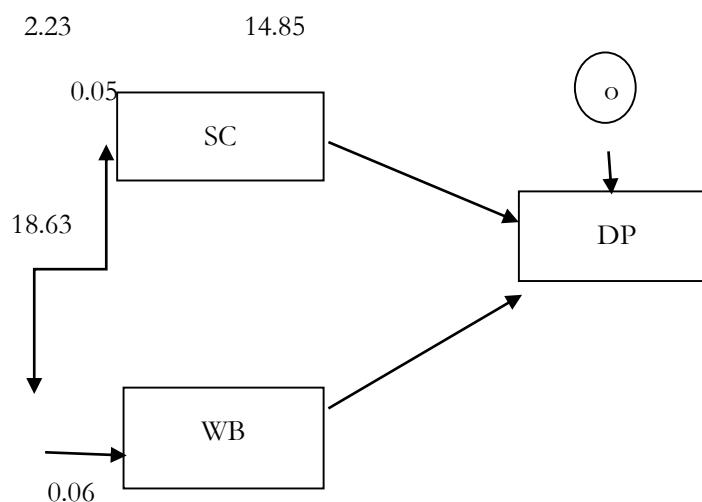


Figure (1) represents the structural connections between Fear of Missing Out (FoMO), rumination, and their collective impact on the excessive use of social media.

The model highlights that FoMO and rumination are key psychological factors that, when interacting, contribute to the overuse of social anxiety platforms among individuals. This interaction indicates that those experiencing higher levels of both FoMO and rumination are more likely to engage in excessive social media usage, which is statistically significant at the 0.01 level.

The following summarizes the results of the path analysis regarding the relationship between Fear of Missing Out (FoMO), rumination, and social anxiety.

Table (8). Summary of Path Analysis Results for the Relationship Between Fear of Missing Out, Rumination, and Social Anxiety

social anxiety				
Variables	Estimate	S.E. (Standard Error)	C.R. (Critical Ratio)	p
Fear of Missing Out	5.00	2.23	14.85	5.00
Rumination	6.00	2.23	18.63	5.00

It is evident from Table (8) that the path analysis model for the relationship between Fear of Missing Out (FoMO), rumination, and social anxiety has met the goodness-of-fit specifications. As for the path analysis results, a significant effect was found at the significance level (0.001) between Fear of Missing Out and social anxiety, with an effect value of (0.5), which is significant, and a standard error of (2.23). The path coefficient value was (14.85), which is also significant. Regarding the path relationship between rumination and social anxiety, the effect value was (0.6), which is significant, with a standard error of (2.23), and the path coefficient value was (18.63), which is significant. Thus, it is clear that this model meets the criteria for an acceptable model.

The Sixth Hypothesis There is a significant interaction between FoMO and rumination on the excessive use of social media, with the F-values indicating that the interaction has a significant effect at the 0.01 level.

To test this hypothesis, a model was constructed to show the pathways of the relationship between self-compassion, psychological flexibility, and depression using AMOS-v20 software. The results of the path analysis for this structural model are presented below:

Table (9). Goodness-of-Fit Indices for the Path Analysis Model

No	Goodness-of-Fit Indicators	Indicator Symbol	Indicator Value
1	Ratio of Chi-Square to Degrees of Freedom (df)	χ^2/df	127.0
2	Comparative Fit Index (CFA)	CFA	0.000
3	Goodness-of-Fit Index (GFA)	GFA	1.0
4	Adjusted Goodness-of-Fit Index (AGFI)	AGFI	1.0
5	Normed Fit Index (NFI)	NFI	0.898
6	Expected Cross-Validation Index (ECVI)	ECVI	22.0
7	Root Mean Square Error of Approximation (RMSEA)	RMSEA	0.000
8	Tucker-Lewis Index (TLI)	TLI	1.0
9	Incremental Fit Index (IFI)	IFI	-1.0

The results in Table (10) reflect that the previous indicators demonstrate a good fit between the hypothesized model and the data, as the model meets the conditions for goodness-of-fit.

The following diagram illustrates the path model for the interaction of FoMO and rumination on the excessive use of social media According to the hypothesized path model.

Figure (2)

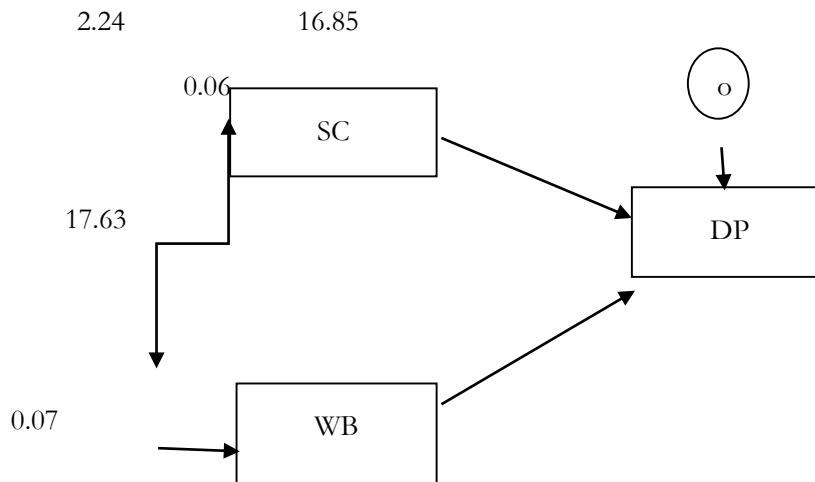


Figure (2) represents the structural connections between Fear of Missing Out (FoMO), rumination, and their collective impact on the excessive use of social media.

The model highlights that FoMO and rumination are key psychological factors that, when interacting, contribute to the overuse of social media platforms among individuals. This interaction indicates that those experiencing higher levels of both FoMO and rumination are more likely to engage in excessive social media usage, which is statistically significant at the 0.01 level.

The following summarizes the results of the path analysis regarding the relationship between Fear of Missing Out (FoMO), rumination, and the excessive use of social media.

Table (10). Summary of Path Analysis Results for the Relationship Between Fear of Missing Out, Rumination, the Excessive Use of Social Media

the excessive use of social media					
Variables	Estimate	S.E. (Standard Error)	C.R. (Critical Ratio)	p	
Fear of Missing Out	6.00	2.24	16.85	5.00	
Rumination	7.00	2.24	17.63	5.00	

It is evident from Table (10) that the path analysis model for the relationship between Fear of Missing Out (FoMO), rumination, and excessive use of social media has met the goodness-of-fit specifications. As for the path analysis results, a significant effect was found at the significance level (0.001) between Fear of Missing Out and excessive use of social media, with an effect value of (0.5), which is significant, and a standard error of (2.24). The path coefficient value was (16.85), which is also significant. Regarding the path relationship between rumination and excessive use of social media, the effect value was (0.6), which is

significant, with a standard error of (2.24), and the path coefficient value was (17.63), which is significant. Thus, it is clear that this model meets the criteria for an acceptable model.

This finding indicates a strong positive relationship between Fear of Missing Out (FoMO) and social anxiety among the participants. A correlation coefficient of 0.635 suggests that as FoMO increases, social anxiety also tends to increase. This significant correlation, noted at the 0.01 level, means there is less than a 1% probability that this relationship is due to chance, reinforcing the reliability of the observed connection.

In practical terms, individuals who experience higher levels of FoMO—feeling anxious about missing social opportunities or experiences—are likely to exhibit higher levels of social anxiety. This could imply that the fear of not being part of social interactions may exacerbate feelings of anxiety related to social situations. Understanding this relationship can be crucial for developing interventions aimed at reducing social anxiety by addressing underlying factors like FoMO.

This result indicates a strong positive correlation between Fear of Missing Out (FoMO) and social anxiety, with a correlation coefficient of 0.635. This means that as individuals' feelings of FoMO increase, their levels of social anxiety also tend to rise. The significance at the 0.01 level suggests that this correlation is highly unlikely to be due to random chance, providing strong evidence for a meaningful relationship between these two variables.

This finding implies that individuals who are more anxious about missing out on social events or experiences are also likely to feel more anxious in social situations. This connection could be important for mental health professionals, as addressing FoMO may help alleviate social anxiety symptoms. Understanding this relationship can inform strategies for interventions that target both FoMO and social anxiety, potentially improving overall well-being.

This statement highlights a significant relationship between rumination and both social anxiety and excessive use of social media among university students. To verify this hypothesis, researchers calculated Pearson's correlation coefficient, which is a statistical measure that assesses the strength and direction of the relationship between two variables—in this case, FoMO and social anxiety.

A significant correlation would suggest that higher levels of rumination are associated with increased social anxiety and excessive use of social media. This relationship can be particularly relevant for understanding how these psychological factors influence one another in the context of university students, who often navigate social pressures and digital connectivity.

By establishing this link, researchers can better understand the underlying mechanisms that contribute to social anxiety and excessive social media use, potentially leading to more effective interventions aimed at reducing these issues among students.

The statement indicates a statistically significant positive correlation between rumination and excessive use of social media, with a correlation coefficient of 0.824, which suggests a strong relationship between the two variables.

This means that as individuals' levels of rumination increase, their excessive use of social media also rises. This could be attributed to the tendency of individuals who engage in rumination to seek experiences or social interactions through these platforms as a way to alleviate feelings of anxiety or loneliness. Such excessive use may lead to a cycle of dependence on social media, further increasing feelings of rumination and anxiety.

This statement indicates that there is a significant interaction effect between Fear of Missing Out (FoMO) and rumination on excessive use of social media. The F-values obtained from the analysis demonstrate that this interaction is statistically significant at the 0.01 level.

This means that the relationship between FoMO and excessive social media use is influenced by the level of rumination. In other words, individuals who experience high levels of both FoMO and rumination may be more likely to engage excessively with social media compared to those with lower levels of these variables. This interaction suggests a complex interplay where FoMO might exacerbate the tendency to ruminate, leading to increased social media usage as a coping mechanism or means of connection.

This statement indicates that there is a significant interaction effect between Fear of Missing Out (FoMO) and rumination on excessive use of social media. The F-values suggest that this interaction is statistically significant at the 0.01 level, meaning that the combination of high levels of FoMO and rumination significantly influences the likelihood of excessive social media use. This implies that individuals who experience both high FoMO and rumination are more prone to engage in excessive social media use, highlighting a complex relationship where these two factors may amplify each other's effects.

This statement indicates that there is a significant interaction between Fear of Missing Out (FoMO) and rumination concerning social anxiety. The F-values suggest that this interaction has a statistically significant effect at the 0.01 level. In practical terms, this means that the combined influence of FoMO and rumination on social anxiety is notable. Individuals who experience both high levels of FoMO and rumination may be more susceptible to higher levels of social anxiety, indicating that these two factors may exacerbate each other's effects on an individual's mental health.

This statement highlights that there is a significant interaction between Fear of Missing Out (FoMO) and rumination regarding excessive social media use. The mention of F-values indicates that this interaction is statistically significant at the 0.01 level. This means that the combined influence of FoMO and rumination on excessive social media usage is strong and noteworthy. In practical terms, it suggests that individuals who experience both high FoMO and higher levels of rumination are particularly likely to use social media excessively, indicating that these factors may work together to heighten the risk of problematic social media behaviors.

The relationship between Fear of Missing Out (FoMO), rumination, social anxiety, and excessive social media use is complex, involving various psychological and social factors. Let's explain these relationships:

Fear of Missing Out (FoMO)

FoMO is the anxiety experienced when someone feels they are missing out on enjoyable social experiences that others are having. Individuals with high levels of FoMO tend to become more attached to social media because of their desire to constantly keep up with everything happening around them, fearing they might miss something important.

FoMO and excessive social media use: People who experience FoMO are likely to spend extended periods on social media, monitoring the activities of others, which often leads to excessive use of these platforms.

Rumination

Rumination refers to the tendency to think excessively about past or future events in a negative, repetitive way. People who ruminate often feel distress and anxiety as they are unable to stop thinking about their negative emotions or personal experiences.

Rumination and excessive social media use: Individuals prone to rumination may use social media as an escape from their negative thoughts or to fuel further anxiety and stress through comparisons with others' lives, thereby reinforcing excessive use of these platforms.

Social Anxiety

Social anxiety involves an excessive fear of negative judgment or rejection by others in social situations. People with social anxiety may feel uncomfortable in real-life social interactions and turn to online communication as a way to ease their anxiety.

Social anxiety and excessive social media use: Those with social anxiety may find social media a more comfortable way to interact with others without face-to-face confrontation, increasing the likelihood of excessive usage as an alternative to direct social engagement.

Interrelationships Between the Variables

FoMO and social anxiety: Individuals with social anxiety are more prone to experiencing FoMO, as they fear missing out on social experiences that could improve their connections with others. As a result, they become preoccupied with monitoring their friends' activities online.

FoMO and rumination: Rumination can fuel FoMO as a person fixates on negative thoughts about the social experiences or achievements they are missing out on, which intensifies their social anxiety.

Excessive social media use: Excessive use may be a consequence of the interaction between these psychological factors (FoMO, rumination, and social anxiety), as the individual relies on the internet to cope with feelings of inadequacy or isolation. However, this dependence often exacerbates these feelings through constant comparison and engagement with online content.

Conclusion

The relationship between these variables points to a vicious cycle. FoMO and social anxiety drive individuals to excessively use social media, while rumination strengthens this connection by keeping the person stuck in negative thoughts about what they lack compared to others. In turn, this reinforces the excessive use of social media as a coping mechanism.

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