

Unraveling FOMO: Exploring the Factors Behind Fear of Missing Out among College Students

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Abstract

The increasing use of social media among college students can trigger mental health problems such as FOMO (Fear of Missing Out). There are not many studies that look at the relationship between the intensity of social media use and FOMO in college students. This study aims to provide an overview of FOMO among college students and assess the factors associated with FOMO. This quantitative study used a cross-sectional design with purposive sampling. Data collection was conducted through an online survey filled out by 104 college students. The variables measured were respondent characteristics, duration of social media use, number of social media accounts, and FOMO scale. The results of this study showed that 73.1% of students were classified as high duration users, 77.9% had less than 10 accounts, and 43.3% had high FOMO. There was a significant relationship between age ($p=0.003$) and undergraduate program ($p=0.001$) with FOMO. This study also found the significant relationship between duration ($p=0.012$) and number of accounts ($p=0.007$) with FOMO. There was a significant relationship between age, undergraduate program, duration, and number of accounts with FOMO in undergraduate students.

Keywords: social media, Fear of Missing Out, college student

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Introduction

Social media users in Indonesia as of January 2021 reached 170 million users from a total population of 274.9 million or 62% are social media users (Hootsuite, 2021a, 2021b). A study by GlobalWebIndex examined the reasons for social media use among the young adults of Gen Z or the generation born between 1997-2004, which is largely contributed by students. The study found that during the pandemic, the main reasons Gen Z used social media were to spend their free time (41%) and entertainment seeking (40%) (GlobalWebIndex, 2020). As social media use among students increases, digital well-being and mental health have become important issues since 2019 (GlobalWebIndex, 2020).

The negative impacts of social media use also haunt its users. The negative impacts that can occur in adolescence and young adulthood are decreased mood, decreased life satisfaction, keeping distance from family, feeling lonely, decreased well-being, decreased concentration, *cyberbullying*, decreased sleep quality, anxiety disorders, increased *Fear of Missing Out* (FOMO) behavior, and distraction during lecture hours among students (Ataee et al., 2014; Levenson et al., 2017; Ryan et al., 2017; Scott & Woods, 2018; Sherman et al., 2016; Smahel et al., 2012; Ward, 2017; Zhang et al., 2018).

Fear of Missing Out or FOMO is one of the negative implications of using social media. FOMO is the feeling of fear or anxiety because other people experience valuable experiences, while he or she

does not feel the experience (Przybylski et al., 2013). Meanwhile, FOMO according to the Royal Society for Public Health is an individual's anxiety if social activities or fun activities are carried out without their presence. FOMO is one of the effects of using social media in order to fulfill the need to find entertainment, the need to interact, and the need for escape (Royal Society for Public Health (RSPH), 2017).

Studies have found that social media is used because individuals feel entertained and connected to others from using social media (Karimi et al., 2014; Papacharissi & Rubin, 2000; Whiting & Williams, 2013). This encourages young adults to spend more time on social media. Previous studies have found that FOMO is related to excessive use of social media (Przybylski et al., 2013; Royal Society for Public Health (RSPH), 2017). In addition, studies have explained that FOMO in students is associated with low mood, low life satisfaction, and is associated with the use of social media during lectures (Przybylski et al., 2013). Other studies have shown a positive relationship between FOMO and social media addiction (Putri & Halimah, 2019).

Students are motivated to use social media to meet the needs of socializing, seeking entertainment, and seeking information (Karimi et al., 2014). The characteristics of students are in the young adult category and have unbalanced prefrontal and limbic cortex functions, thus encouraging impulsive behavior, one of which is in the use of social media. This is also driven by the characteristics of young adults who have a desire to form an identity, actualize themselves, and prioritize the perspectives of their peers (Siste, 2019). The term FOMO is a fairly new term so that there is still little literature examining the risk factors that influence FOMO. Previous studies have found several factors that influence FOMO in adolescents and young adults such as age, gender, having activities such as working and organizing, duration of social media use, and the number of accounts owned by individuals (Woods & Scott, 2016; Barry et al., 2017; Putri & Halimah, 2019; Ergün & Alkan, 2020).

Although previous studies have examined the impact of social media use on mental well-being and FoMO among adolescents or the general population, there remains a lack of comprehensive research on the relationship between the intensity of social media use (such as duration and number of accounts) and FoMO, particularly among college students (Ward, 2017; Zhang et al., 2018; Putri & Halimah, 2019; Ergün & Alkan, 2020). Prior research often overlooks the role of unique demographic and contextual variables in college students. Consequently, there is a significant gap in understanding how these factors interact to influence FoMO and, in turn, affect mental health. This study aims to address this gap by providing an in-depth analysis of the relationship between social media usage variables and FoMO among college students.

Method

Design

This study was explored through a quantitative approach with a cross-sectional study design. The cross-sectional design used is a survey that aims to provide a quantitative description of population trends by studying research samples (Creswell, 2014). The purpose of using the survey design in this study was to obtain the percentage of FOMO behavior through the FOMO scale instrument as the dependent variable. While the independent variables studied were age, sex, type of undergraduate program (regular and extension), organizational membership, duration of social media use, and number of social media accounts owned. This research was conducted in June-July 2021.

Participants

The respondents of this study were 104 students aged 17-28 years. The sampling technique used was non-probability sampling using purposive sampling. The inclusion criteria used were active undergraduate students, including regular and extension undergraduate students.

Measurements

The data collection technique in this study was a survey technique using an online questionnaire with the Google Form platform which was shared through student networks via Whatsapp. This questionnaire was self-administered by respondents. The questionnaire consisted of questions on respondent characteristics, duration of social media use, and number of social media accounts. This study used the Fear of Missing Out Scale instrument developed by Przybylski *et al.* (2013) and has been translated into an Indonesian version by Sitompul (2017). The results of the validity and reliability tests on the Indonesian version of FOMO Scale instrument showed that it was valid and reliable ($\alpha = .729$) (Sitompul, 2017). This instrument consists of 10 question items equipped with 5 answer choices. The minimum score is 10 and the maximum score is 50. The categorization of FOMO scores is divided into two; high (> 20) and low (<20) (Sitompul, 2017). The items are "I fear others have more rewarding experiences than me." "When I miss out on a planned event, I feel anxious or upset." "I feel pressured to stay connected to social media to keep up with what others are doing."

Procedures

Authors ensure that this study comply with research ethic by contacting the researcher who have conducted the validity and reliability test of the FOMO Scale Indonesian version and asking for permission to use the questionnaire. Authors develop online questionnaire using *Google Form*. The questionnaire link was sent to undergraduate students. The questionnaire also includes informed consent to comply the Declaration of Helsinki. Students who are willing to fill out the questionnaire must fill in the agreement section in the informed consent.

Data Analysis

Data analysis was carried out using data processing software SPSS v20. Univariate analysis was used to determine the distribution of sex, age, undergraduate program, organizational membership, duration, number of accounts, motivation for using social media, and FOMO categories. Bivariate data analysis was used to prove the hypothesis of a relationship between independent and dependent variables. Bivariate analysis used the chi square test for categorical data and the Pearson correlation test for numeric data, if the p value ≤ 0.05 , it indicates there is a significant relationship between variables.

Result

This study was conducted on 104 respondents. Based on Table 1, it can be seen that 84.6% respondents were aged 17-24 years. Respondents were dominated by female (87.5%) and 51.9% were undergraduate extension program students. Undergraduate program consist of regular and extension programs. Student of extensions program usually older than regular students, because extension program was special class for student who already has vocational degree in health major.

Table 1
Univariate Analysis Results

	Variables	n	%
Respondent Characteristics	1. Sex		
	-Female	91	87.5
	-Male	13	12.5
	2. Age		
	-17-24 years old	88	84.6
	-25-28 years old	16	15.4
	3. Organizational		
	-Not joining organization	74	71.2
-Active join organizations	30	28.8	
4. Type of Undergraduate program	-Extension Bachelor Degree	54	51.9
	-Regular Bachelor Degree	50	48.1
	Social media used		
1. Whatsapp and Youtube	104	100	
2. Instagram	102	98	
3. Line	100	96.1	
4. Twitter	89	85.6	
5. Facebook	65	62.5	
6. TikTok	52	50	
Motivation for using social media	1. Interacting (Whatsapp)	69	66.3
	2. Distance Learning (Whatsapp)	62	59.6
	3. Seeking entertainment (Youtube)	42	40.4
	4. Seeking information (Youtube)	35	33.7
Duration of social media use	1. High duration (>3 hours per day)	76	73.1
	2. Low duration (1-3 hours per day)	28	26.9
Number of accounts	1. Below average (<10)	81	77.9
	2. Above average (≥10)	23	22.1
FOMO Category	1. Low FOMO (<20)	59	56.7
	2. High FOMO (≥20)	45	43.3

As many as 71.2% of respondents were not participating in any organization. From Table 1, it can be seen that all respondents have WhatsApp and YouTube accounts (100%). The least social media owned by respondents was Tiktok (50%). The main motivation for using social media was to interact through the WhatsApp application (66.3%). WhatsApp also used to distance learning since this study conducted during COVID-19 pandemic. The third motivation for using social media was seeking entertainment through YouTube (40,4%), and the last was for seeking information also through YouTube (33,7%). More than half respondents were classified as high-duration social media users (73.1%). In addition, there are 77.9% of respondents who have less than 10 social media accounts, and 43.3% experience high FOMO.

Table 2

Relationship between Respondent Characteristics and FOMO

Variables	FOMO Category				Total		95% CI	p value	
	Low FOMO		High FOMO		n	%			
	n	%	n	%					
Age	17-24	44	50	44	50	88	100	0.008-0.527	0.003
	25-38	15	93.8	1	6.2	16	100		
Sex	Female	49	53.8	42	46.2	91	100	0.090-1.356	0.203
	Male	10	76.9	3	23.1	13	100		
Type of Undergraduate program	Regular	18	36	32	64	50	100	0.076-0.417	0.001
	Extension	41	75.9	13	24.1	54	100		
Organization Membership	Yes	16	53.3	14	46.7	30	100	0.351-1.934	0.821
	No	43	58.1	31	41.9	74	100		

Chi-square test was used to analyze the relationship between respondent characteristics and FOMO. Based on Table 2. show that there is a significant relationship between age ($p=0.003$) and type of undergraduate program ($p=0.001$) with FOMO. Based on Table 3, there is a significant relationship between duration of social media use with FOMO ($p=0.012$). Variable number of accounts and the FOMO score were analyzed with Pearson test for numerics data. Table 4. showed that there is a significant relationship with moderate strength and a positive pattern between the number of accounts and the FOMO score ($r=0.296$, $p=0.007$).

Table 3

Relationship between Duration of Social Media Use and FOMO

Duration of Use Social media	FOMO Category				Total		95% CI	p value
	Low FOMO		High FOMO		n	%		
	n	%	n	%				
Low (1-3 hours per day)	22	78.6	6	21.4	28	100	1,410-10,596	0.012
High (>3 hours per day)	37	48.7	39	51.3	76	100		

Table 4

Relationship between the Number of Social Media Accounts and FOMO

Variables	Mean (SD)	r	N	p value
Number of accounts	8.03 (2,894)	0.296	104	0.007
FOMO Score	20.01 (6,597)			

Discussion

This study found that 84.6% respondents were aged 17-24 years. This study showed that most of the respondents categorized as Gen Z. Study by the Royal Society for Public Health (RSPH) (2017) stated that 91% of teenagers in the 16-24 age category are active social media users who spend a lot of their time opening social media. The main motivation for using social media was to interact through the Whatsapp application (66.3%). Whatsapp also used to distance learning since this study conducted during COVID-19 pandemic. This is in line with the annual report from the world research institute Hootsuite (2021) which states that the most widely used social media in Indonesia as of January 2021 is WhatsApp with an average usage of up to 30.8 hours per month.

The third motivation for using social media was seeking entertainment through Youtube (40,4%), and the last was for seeking information also through Youtube (33,7%). YouTube is ranked first in the most widely used video streaming application category in Indonesia with an average usage of 25.9 hours per month (Hootsuite, 2021). More than half respondents were classified as high-duration social media users who use social media more than three hours a day (73.1%). This categorization is based on the GlobalWebIndex (2020) which shows that the average Gen Z spends time using social media for 2 hours and 41 minutes, so the cut off used in this study was three hours. Another study by Kelly et al. (2018) on 10,904 teenagers in the UK also refers the duration of high social media use as social media use of more than 3 hours per day. This study also found that 77.9% of respondents have less than 10 social media accounts. This cut off was determine from GlobalWebIndex (2020) which reports that the average Indonesian has 10.5 accounts from all social media platforms.

This study statistically found that age and type of undergraduate program were related to FOMO. This result is in line with the study of Przybylski et al. which found that FOMO was negatively correlated with age. In addition, respondents with younger ages tended to use social media longer. Przybylski's study concluded that respondents with younger ages tended to report higher level of FOMO (Przybylski et al., 2013).

This study also found that sex and organizational membership were not related to FOMO. This result is different from the results of Przybylski's study which concluded that male respondents with younger ages tended to report the highest levels of FOMO (Przybylski et al., 2013). Another study by Abel et al., who studied 185 respondents also found that there was no significant relationship between sex, age, and GPA with FOMO. However, Abel's study found a significant relationship between year of class and FOMO ($p=0.032$) (Abel et al., 2016).

Another factor studied was the duration of social media use. The results of statistical tests showed that there was a significant relationship between duration and FOMO ($p=0.012$). This result is in line with research conducted by Woods and Scott which showed that excessive use of social media is proportional to increased FOMO in young adults, namely behavior that fosters a sense of need and pressure to respond quickly on social media (Woods & Scott, 2016). Another study by Putri and Halimah also showed results that there was a positive relationship between FOMO and the duration of social media (Putri & Halimah, 2019).

The results of statistical tests indicate that there is a significant relationship with moderate strength and a positive pattern between the number of accounts and the FOMO score. This result is in line with the study of Barry et al. which found that the more accounts owned, the greater the increase in mental health problems in adolescents (Barry et al., 2017). Another study by Glazzard and Stones also showed that having multiple accounts on several social media platforms is associated with various mental health problems in adolescents (Glazzard & Stones, 2019).

FOMO in college students is associated with mood, low life satisfaction, and associated with social media use during lectures (Przybylski et al., 2013). Another study by Milyavskaya found that FOMO in 159 college students in America was associated with negative impacts. These negative impacts included increased stress, feelings of greater fatigue, physical symptoms, and decreased sleep time (Milyavskaya et al., 2018). In order to prevent negative effects on the mental health such as FOMO among college students could be prevented by mental health policy that consider the social media use and FOMO behavior. This study indicate that prevention of FOMO in students can be done by intervening in related factors, namely the duration of social media use and the number of accounts.

Interventions that can be carried out include FOMO prevention campaigns by reducing the duration of social media use and the number of accounts. Other interventions that can be carried out include peer counseling to prevent FOMO in students both at the faculty level and at the university level.

This study has several specific limitations. first, the cross-sectional design used does not allow for the identification of causal relationships between the variables studied. second, the use of purposive sampling may lead to selection bias, as the sample may not represent the overall student population. third, the relatively small sample size (n=104) limits the statistical power and generalizability of the findings to a broader population.

Conclusion

This study shows that nearly half of students experience high levels of FoMO. The findings reveal that several key factors contribute to increased FoMO, namely age, type of undergraduate program, duration of social media use, and the number of social media accounts owned. Specifically, younger students and those who spend longer durations on social media tend to experience higher levels of FoMO, and differences in undergraduate program type also reflect variations in FoMO levels.

Based on these results, it is recommended that the university and relevant institutions develop interventions in the form of educational programs and mental health counseling services to reduce the negative impacts of FoMO among students. Additionally, further research with more robust designs, such as longitudinal or experimental studies, is necessary to uncover the causal relationships among these factors and enhance our understanding of the mechanisms underlying the emergence of FoMO in the era of dynamic social media usage.

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Ethical statement

The study followed the guidelines of the Declaration of Helsinki.

Informed Consent Statement

Informed consent was obtained from all persons involved in the study.

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Conflicts of Interest

On behalf of all authors, the corresponding author states that there is no conflict of interest.

Author Contribution

All authors have contributed equally to the study's conceptualization, interpreting data, reviewing, and editing the manuscript.

Data availability

Data can be provided upon request to the author.

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