

Metaverse platform as a new culture: analysis of fomo phenomenon in college students

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Abstract

The phenomenon of Fear of Missing Out (FoMO) is a notable impact associated with the usage of these platforms metaverse. This study focuses on assessing the FoMO levels among university students and examines variations based on age, gender, and specific FoMO indicators. Adopting a quantitative methodology with a descriptive approach, the research involved 346 students aged 18 to 24. The findings revealed that the highest level of FoMO was classified as high, at 59.5%. Among these, female students exhibited a higher prevalence of FoMO at 68%, compared to their male counterparts at 48%, who fell into the medium category. The most significant FoMO indicator was the urge to check updates on social media. The study concluded that FoMO levels among students are predominantly high, with minor age-related variations. Gender-wise, a distinction was noted where females showed higher levels of FoMO than males. The compulsion to monitor social media updates emerged as the most prominent FoMO descriptor.

INTRODUCTION

Along with the outbreak of COVID-19, technological advances have changed how individuals interact. The development of technology and science has become crucial for individuals in everyday life (Zhang et al., 2022). Technological evolutions related to the metaverse have enticed attention worldwide (Duan et al., 2021; Ifdil et al., 2023; Situmorang, 2023a, 2023b, 2023c). Metaverse is a new generation of the internet known as Web 3.0, which employs reality technology to enable real-time interactions and experiences in ways that are inconceivable in the physical world (Arapci et al., 2022; Koohang et al., 2023; Monaco & Sacchi, 2023; Trunfio & Rossi, 2022). The notion of a metaverse is one of the most significant and controversial issues in the world, as it influences the growth of the internet, directly affecting the physical world (Li, 2023).

This rapid metaverse development creates a new culture where individuals spend their time, such as binge-watching (Liza et al., 2023) and playing games (Article et al., 2023; Braguez et al., 2023). The metaverse has also gained ground recently, especially on social media (X. Zhang et al., 2022). Social media administers eclectic interaction and self-presentation features that can provide feedback to one another (Brailovskaia et al., 2023; Meshi & Ellithorpe, 2021). Several social media platforms, such as Facebook and Instagram, grant opportunities for users to express themselves (van der Schyff & Flowerday, 2023). This

metaverse technology offers an immersive experience of content and social interaction (Braguez et al., 2023).

The usage of social media that exposes all these activities has evolved a new culture continually followed by others, especially Generation Z (Oh et al., 2023). The increasing use of social media is addictive for its users (Sun & Zhang, 2021). This phenomenon has become a new culture where every individual is competing to flex on social media so that they are followed by each other, named the term FoMO. This Fear of Missing Out (FoMO) is the fear and anxiety experienced by individuals when other individuals experience intriguing events while the individual does not partake now (Rozgonjuk et al., 2020; X. Shi et al., 2023; Wang, 2009; Yin et al., 2023). The FoMO phenomenon has created a new culture of using WhatsApp, Facebook, Instagram, and Snapchat (Rozgonjuk et al., 2020).

However, the excessive use of social media by millennials and Generation Z will advance FoMO behavior, which can have an impact on their mental health. This FoMO phenomenon will be able to disrupt individual psychology in socializing. FoMO is stimulated by the anxiety felt by individuals and the time spent playing social media (Jabeen et al., 2023; L. Zhang et al., 2022). The supportive interactions of millennials and Generation Z in the metaverse, especially on social media, may diminish their loneliness through increased social self-efficacy (Oh et al., 2023). This increase can be provided through counseling interventions, one of which is spiritual counseling. Spiritual-based interventions are essential in responding to recovery (Kestenbaum et al., 2018).

Following the description that has been presented, the purpose of this research is to find out the phenomenon that occurs in students at a university that has majority students. The findings of this study contribute to gathering information about the FoMO phenomenon in students so that this research can provide a new perspective on providing spiritual counseling interventions to college students.

METHODS

This study adopted a quantitative approach utilizing descriptive methods, focusing on students from two universities with predominantly student bodies. The objective was to gather insights into the Fear of Missing Out (FoMO) phenomenon among these students. The data collection involved distributing a Google Form link via WhatsApp across various academic programs. After a two-week distribution period, 377 students completed the survey. For the purposes of this research, 346 responses were selected based on the study's criteria. The respondents were male and female students aged 18 to 24. The details of the demographic distribution are presented in Table 1. The questionnaire was open for responses for approximately two weeks, after which the data was compiled and analyzed. Participant consent was obtained for the use of this data in the research, ensuring ethical standards were upheld in its publication.

Table 1 <Demographic Profile>

Socio-demographic profile	Frequency	Percentage (%)
Gender		
Female	237	68.5
Male	109	31.5
Age		
18 years	25	7.2
19 years	75	21.7
20 years	92	26.6
21 years	79	22.8
22 years	46	13.3
23 years	21	6.1
24 years	8	2.3

The data collection method employed in this study was the FoMO Scale Questionnaire (Supriyanto, et al, 2022), comprising 20 statements. Chosen for its relevance to young adults who are frequent users of social media, the questionnaire is divided into two aspects and six descriptors, detailed in Table 2, including the Corrected Item-Total Correlation. The reliability coefficient of the FoMO scale is 0.721, categorizing it as highly reliable. Respondents rated each statement using a four-point Likert scale: strongly agree, agree, disagree, and strongly disagree. The collected data were then categorized into three levels of FoMO: high, medium, and low. Subsequently, the author conducted an analysis of the findings, employing relevant theoretical frameworks to interpret the data and draw conclusions.

Table 2 <Study Measures, Items, and Corrected Item-total Correlation>

Aspect	Descriptor	Items	Corrected item-total Correlation
The psychological need for relatedness	Desire to see other people's updates on social media	1	0 234
		2	0 270
	3	0 265	
	The desire not to miss the moment	4	0 313
		5	0 389
		6	0 211
		7	0 266
	Fear of missing information	8	0 416
		9	0 354
		10	0 341
The psychological need for self	Panic and restlessness when the gadget is left behind	11	0 347
		12	0 348
		13	0 243
		14	0 329
	The desire to update your news	15	0 446
		16	0 424
	17	0 219	
	Stalking friends on social media	18	0 563
		19	0 434
			20

RESULTS AND DISCUSSIONS

Results

The researchers divided the FoMO levels into three distinct categories: high, medium, and low. This classification was based on the scoring range determined by the questionnaire's possible highest and lowest scores. The range between the highest and lowest scores (80 - 20) is 60. This range was then divided into three equal parts for the FoMO classification, with each category spanning a score range of 20. The classification criteria are detailed in Table 3.

Table 3 <Classification of FoMO Levels in Higher Education Students>

Interval	Classification	f	%
60-80	High	206	59 5
40-59	Medium	117	33 8
20-39	Low	23	6 6
Total		346	100

The highest possible score was calculated by multiplying the highest weight (4) for each response option by the total number of statements (20), resulting in a maximum score of 80. Conversely, the lowest possible score was determined by multiplying the lowest weight (1) for each response option by the total number of statements, yielding a minimum score of 20.

The interval calculations for the FoMO classification revealed that 206 students fall into the high classification, constituting 59.5% of the sample. Additionally, 117 students are classified at a moderate level, accounting for 33.8%, while 23 students are in the low classification, making up 6.6% of the participants. Detailed breakdowns of FoMO levels by age are provided in Table 4.

Table 4 Classification of FoMO Levels in Students by Age

Interval	Classification	18		19		20		21		22		23		24	
		f	%	f	%	f	%	f	%	f	%	f	%	f	%
60-80	High	13	52	52	69.3	61	66.3	47	59.5	19	41.3	11	52.3	3	37.5
40-59	Medium	11	44	22	29.3	25	27.2	25	31.6	22	47.9	8	38.1	4	50
20-39	Low	1	4	1	1.3	6	6.5	7	8.7	5	10.9	2	9.6	1	12.5

The data analysis, as depicted in Table 4, illustrates the FoMO levels among students by age. For 18-year-old students, 44% are in the medium classification, 4% in the low, and 52% in the high classification. Among 19-year-olds, 69.3% are categorized as high, 1.3% as low, and 29.3% as medium. For 20-year-olds, the distribution is 27.2% medium, 66.3% high, and 6.5% low. Students aged 21 show 59.5% in the high classification, 8.7% low, and 31.6% medium. At age 22, 41.3% are in the high category, 47.9% in medium, and 10.9% in low. For 23-year-olds, 52.3% are classified as high, 9.6% as low, and 38.1% as medium. Lastly, 24-year-old students have 12.5% in low, 37.5% in high, and 50% in medium classifications. Additionally, the variation in FoMO levels by gender is presented in Figure 1.

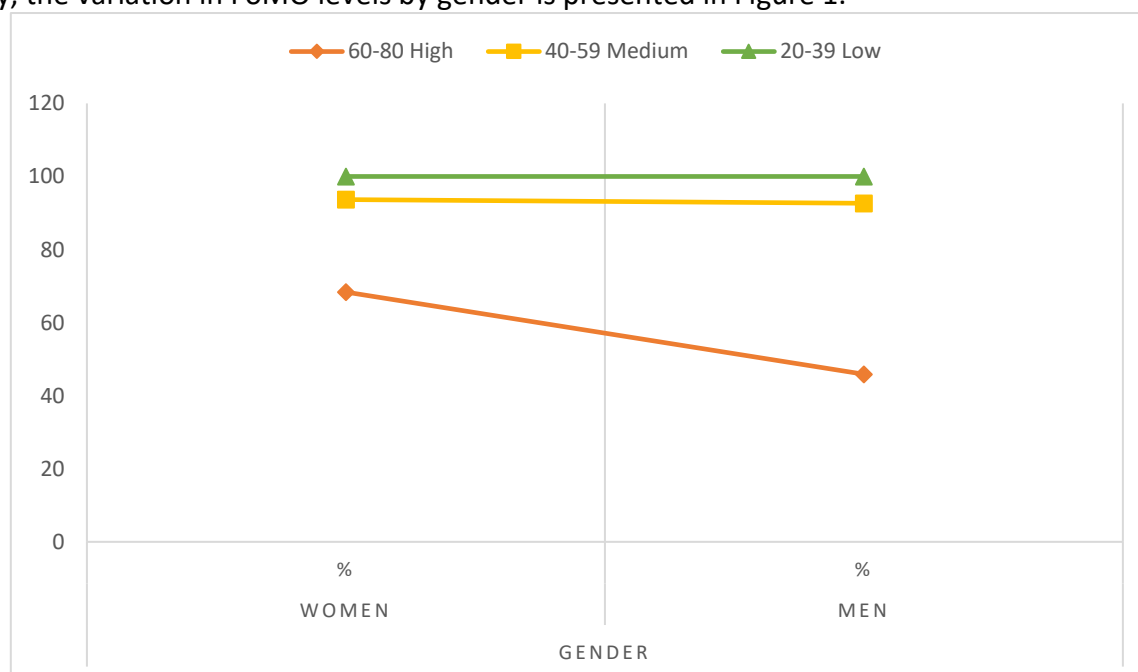


Figure 1 <FoMO Levels by Gender>

The processed data reveal gender-based differences in FoMO levels among students. Specifically, 68% of female students fall into the high FoMO classification, compared to 46% of male students. In the medium classification, the percentages are 25% for females and 48% for males. Regarding the low classification, 6% of female students and 7% of male students are categorized in this group. Each aspect and descriptor on the FoMO scale has a different score. For details on the score of each aspect, the descriptor can be seen in Table 5.

Table 5 <Average Score Distribution>

Aspect	Descriptor	Total of Statements	Score total	Average
The psychological need for relatedness	Desire to see other people's updates on social media	3	2985	995
	The desire not to miss the moment	4	3284	821
	Fear of missing information	3	2816	939
Total		10	9085	2755
The psychological need for self	Panic and restlessness when the gadget is left behind	4	3792	948
	The desire to update your news	3	2118	706
	Stalking friends on social media	3	2206	735
Total		10	8116	2389

Table 5 provides insights into the average scores for different aspects of FoMO. The psychological need for relatedness has an average score of 2755, while the psychological need for self is scored at 2389. For the psychological need for relatedness, the breakdown of average scores among descriptors is as follows: the desire to see other people's updates on social media stands at 995, the desire not to miss out on events is 821, and the fear of missing out on information is 939. In terms of the psychological need for self, the average scores are distributed among descriptors like this: experiencing panic and restlessness when separated from one's gadget is at 948, the urge to update one's own news is 706, and the act of stalking friends on social media has an average score of 735.

Discussion

The data analysis from this study indicates that a significant proportion of students experience high levels of Fear of Missing Out (FoMO). The results illustrate how young adult users maximize the social benefits of metaverse services (Oh et al, 2023). In this case, social media is often used to present oneself continuously to various users (Brailovskaia et al, 2023). The interaction of Millennials and Generation Z supporters in the metaverse, especially on social media, can reduce feelings of loneliness (Oh et al, 2023). However, a high FoMO level will hurt students. The concept of gratitude for one's life is not good, so it is easy to get carried away when you see other people's posts. This certainly needs to be given intervention in the form of spiritual counseling related to gratitude and self-acceptance.

Based on the age range, there is a difference, but not significant. Most students aged 24 are in the moderate category. This shows that cognitive weakening in the development of the adult ego continues to grow so that it increases the emotional mentality of oneself (Kam, 2020). Furthermore, there are gender differences, where female students are in the high category while male students are in the medium category. The gender difference is caused by neuroticism, extraversion, openness, agreeableness, and conscientiousness; women usually get a higher score than men (Mac Giolla & Kajonius, 2019). Women also usually show higher levels of attention than men on social media (Tifferet, 2019).

Furthermore, the FoMO aspect shows that the average psychological need for relatedness score is higher than the psychological need for self. The psychological need for relatedness is an individual's need to relate to others. This is associated with the use of social media and the psychological pressure experienced comes from themselves (Di Blasi et al, 2022). FoMO promotes the desire or urges to stay connected to the activities of others, which may potentially increase addiction in smartphone and social media users. (F Shi et al, 2023; Yin et al, 2023) who belong to the metaverse platform. Moreover, the fear of being left behind by others' activities is linked to phubbing behavior (Fang et al, 2020; Tandon et al, 2022).

The descriptor with the highest average value is the desire to see other people's updates on social media. This descriptor has the highest average value between the two aspects. It demonstrates that individuals highly desire to see other people's activities. This situation can trigger the desire to follow what is seen in the person's post. It is exhibited through the most popular social media among students, such as WhatsApp, Snapchat, Twitter, and Instagram (Ali Homaid, 2022), where social media can access other people's activities. This can be triggered by the loneliness experienced by everyone, which increases the use of social media (X Shi et al, 2023; Yin et al, 2023), which can affect the individual's sleep quality (Almeida et al, 2022) and their psychology and mental health.

Although our study has many strengths, it also has some limitations. This study did not balance the number of women and men and the imbalance of participants at the age level. Despite these problems, we still processed the data according to what we got to see the reality of students' scope. Furthermore, we did not classify students' platforms that can stimulate FoMO behavior.

CONCLUSIONS

The study findings indicate that the FoMO levels among students predominantly fall into the high classification. While variations in FoMO levels across different age groups were observed, these differences were not statistically significant. Gender-based analysis revealed that female students generally exhibited higher FoMO levels compared to their male counterparts, who were more often categorized in the medium level. Moreover, the data suggest that these students' psychological need for connection and interaction with others outweighs their individual psychological needs. Among various behaviors, the tendency to check updates on social media was identified as the most pronounced descriptor of FoMO.

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AUTHOR CONTRIBUTION STATEMENT

Junaidi: Conceptualization, Methodology, Investigation, Data curation, Formal analysis, Writing – original draft, Writing – review & editing, Validation, Project administration, Resources, Funding acquisition. Ledya Oktavia Liza: Conceptualization, Methodology, Investigation, Data curation, Formal analysis, Writing – original draft, Writing – review & editing, Validation, Project administration, Resources. Ardiya: Writing – review & editing, Validation, Formal analysis, Data curation, Visualization, Software, Project administration. Dominikus David Biondi Situmorang: Writing – review & editing, Validation, Data curation, Formal analysis, Correspondence.

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