

The relationship between personality type and fulfillment of basic needs with the FoMO Syndrome among adolescents in East Java

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Abstract

Fear of Missing Out (FoMO) stems from individuals' dissatisfaction with their basic needs, and each individual develops dis-

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Patients' consent for publication: written informed consent was obtained for anonymized patient information to be published in this article. Apart from that, in the informed consent, it was written that the respondent had been given an explanation regarding the publication of the article, and the respondent knew that the publication of this article could encourage developments about the relationship between personality type and fulfillment of basic needs with the incident of Fear of Missing Out (FoMO) Syndrome in adolescents in East Java.

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tinct FoMO characteristics. This research aimed to analyze the relationship between personality types, fulfillment of basic needs, and the incidence of FoMO syndrome in East Java. We employed a correlational approach with a cross-sectional design for the study. The study's population comprised youths aged 12-25 in East Java. We obtained our research sample, consisting of 140 individuals, through proportionately stratified random sampling. The instruments we used included the Jung personality type indicator, a basic needs assessment, and the FoMO questionnaire. We analyzed the data using the chi-square test ($p < 0.05$) and Spearman's rho ($p < 0.05$). Our research findings indicated that the prevalent personality type in East Java was introverted, with 84 youths (60.0%). Additionally, 125 youths (89.3%) reported a high level of adequately met needs, while 71 (50.7%) fell into the moderate FoMO category. The Chi-square test revealed a significant correlation between personality type and the incidence of FoMO syndrome ($p = 0.000$). Similarly, Spearman's rho indicated a significant link between meeting basic needs and the occurrence of FoMO syndrome ($p = 0.000$). Adolescents with both introverted and extroverted personality types, coupled with low basic needs satisfaction, were more prone to experiencing FoMO syndrome. Our study's implications underscored the necessity of increasing motivation to fulfill basic needs, thereby mitigating the likelihood of experiencing FoMO.

Introduction

Most human stressors are psychological.¹ Adolescents suffer from various forms of psychosocial, behavioral, mental, and emotional problems.^{2,3} The prevalence of mental health issues among adolescents is on an increasing trend.⁴ FoMO, or Fear of Missing Out, is defined as a feeling of anxiety or fear of being left behind by other people. FoMO Syndrome occurs when individuals feel depressed upon seeing posts by friends, artists, or relatives containing amazing photos on social media, assuming that these individuals live better, more successful, more exciting, and more interesting lives than they do.⁵ The stress experienced by adolescents, coupled with their development, designates this period as a critical phase with a dramatic increase in internalization problems.⁶ FoMO can be interpreted as self-regulation that arises from individual dissatisfaction because their basic needs are not met. Melvin Lawrence Defleure proposed the theory of individual differences, suggesting that variations in FoMO syndrome exist between individuals due to their unique characteristics. This leads to the emergence of various reactions, such as different expressions and behaviors.⁷ The factor driving these differences in reactions is the personality type of each individual.⁸ In fact, FoMO is not limited to things on social media; however, social media involvement significantly influences the incidence of FoMO, shaping the daily lives of digital natives, commonly referred to as Millennials (circa 1981 to 1996) and Gen Z (post-millennial, circa 1997 to 2012).⁵

A research study on internet users experiencing FoMO was

conducted in Poland with respondents aged 15-65 years. The findings revealed that the 20-24-year age group had the highest incidence rates of FoMO, with a 32% occurrence in the high category. Following closely, the 15-19 year age group exhibited a 30% incidence rate.⁹ Meanwhile, a separate study on FoMO involved 228 teenage respondents aged 17 years and over in Indonesia. Results showed that 49.1% of respondents experienced high FoMO, while 50.9% experienced low FoMO. In Java, respondents reported a higher prevalence of low FoMO at 51.5%, totaling 101 people, compared to high FoMO at 48.5%, totaling 95 people.¹⁰ The Central Statistics Agency notes that the teenage population in East Java currently reaches 9,089,291 people. Based on the results of the preliminary study and to test the validity and reliability of the questionnaire, 50 respondents with an age range of 12-25 years in the East Java region were selected. The findings indicated that 48 respondents (96%) had an introverted personality type, while 2 respondents (4%) had an extroverted personality type. In terms of basic needs, 30 respondents (60%) had a medium level, and 20 respondents (40%) had a high level. All respondents experienced FoMO syndrome to varying degrees, with 60% in the mild category, 36% in the moderate category, and 4% in the high category.

The term FoMO was coined by Patrick J. McGinnis at the same time the first FoMO species was discovered, namely McGinnis himself, who consistently strove to match the lives of his neighbors.⁵ Students with mental health disorders are also observed to have poorer academic attainment, implying that addressing mental health and well-being is crucial for both health and education outcomes.¹¹ McGinnis's behavior is based on individual characteristics that refer to personality types. FoMO tends to be experienced by individuals with extroverted personalities because they enjoy interacting with others and are easily influenced by the surrounding environment. FoMO's journey to dominate the world began with its popularity among American students. Symptoms experienced at that time included losing the ability to refuse invitations to parties, dinners, or any events attended by people important to their social network, leading to impulsive behavior.⁸ FoMO's popularity continued to increase, reaching a wider audience in the professional realm. Simultaneously, there was growth in social media and digital marketing, contributing to the introduction of FoMO.⁵ Social media users with FoMO apparently experience low levels of satisfaction in meeting needs and moods. This can have dangerous impacts because individuals with FoMO may behave illogically and impulsively to overcome FoMO. For instance, individuals may become obsessed with continually monitoring social media even while driving, feel anxious if not up-to-date with the latest news, encounter problems with self-identity, experience low self-esteem, feel jealous and envious of others, and sense feelings of being left out.¹²

Expanding positive thoughts and narrowing the space for negative thoughts can compensate for mental attacks.¹³ Mental health issues among adolescents can be a burden for individuals, families, and environments.¹⁴ The family plays a crucial role in addressing FoMO, with relationships between parents and adolescents built on trust and good communication serving as strong protective factors against FoMO. When parents and teenagers have a strained relationship at home, adolescents may resort to online communication or social media as an escape to interact with their peers. This behavior can trigger FoMO syndrome in adolescents. Besides the role of parents in terms of trust and good communication, parenting styles involving both support and control are highly necessary as they strongly influence adolescents' interactions and use of social media.¹⁵ The development of health education is essential so that families can effectively contribute to caring for adolescents.¹⁶

Based on the background described, researchers are interested in examining FoMO syndrome from the perspective of personality types and the fulfillment of basic needs, drawing on Abraham Maslow's theory.

Materials and Methods

Design

The research was conducted in June 2022, specifically from June 7th to June 13th. Analysis of the relationship between personality type, fulfillment of basic needs, and the incidence of FoMO syndrome in adolescents in East Java was carried out using a correlational research design. Correlational research aims to establish the existence of a relationship between personality type, fulfillment of basic needs, and the incidence of FoMO syndrome. The research utilized a cross-sectional approach, wherein data measurements were conducted only once and were limited by time.

Population, sample, sampling

This research employs probability sampling techniques with a proportional stratified random sampling approach. Using proportional stratified random sampling allows the population to be divided into several strata, making it easier for researchers to obtain more detailed information in line with research objectives.⁹ The population in this study consisted of 2,827,275 adolescents in the East Java region.¹⁰ Utilizing the proportional stratified random sampling technique to determine a large sample, the researchers selected five cities or districts in East Java with the largest number of adolescents (aged 12-25 years): Surabaya (711,730 adolescents), Malang (589,340 adolescents), Jember (570,479 adolescents), Sidoarjo (543,169 adolescents), and Pasuruan (412,557 adolescents). This approach was chosen for a more effective assessment.

The sample size, calculated using the Lemeshow formula, was 140 people living in Surabaya, Malang, Jember, Sidoarjo, Pasuruan, aged 12-25 years, who were willing to become respondents by filling in the provided online questionnaire. Meanwhile, the exclusion criteria in this study were adolescents diagnosed with an anxiety disorder by a doctor or psychiatrist.

Variables

A variable is a characteristic studied in research pertaining to people, objects, animals, places, or natural situations and phenomena. In this research, there are independent variables and a dependent variable. An independent variable is one whose value affects the values of other variables. The independent variables in this research are personality type and the fulfillment of basic needs. The personality type variable will be assessed based on characteristics that stand out in adolescents. The variable of fulfilling basic needs is evaluated based on adolescents' efforts to support and defend their right to lead healthy lives and maintain interpersonal relationships with others. The dependent variable is one whose value can change due to changes in the values of other variables. The dependent variable in this research is FoMO.

Instruments

This research employed a questionnaire instrument for data collection. For the personality type variable, the personality type questionnaire was adopted from Utami's research (2017). The indicators in the questionnaire consist of activity, social ability, ability to take risks, immediate obedience to impulses, expressiveness of

anger and sadness, depth of thinking, and responsibility. The data scale used is a nominal data scale. For the fulfillment of basic needs variable, the questionnaire on the fulfillment of basic needs was adopted from Candra (2020). The indicators in the questionnaire consist of physiological needs, safety and protection needs, love and feeling needs, self-esteem needs, and self-actualization needs. The data scale used is an ordinal data scale with categories: good, enough, and less. Next is the FoMO variable, where Przybylski's questionnaire (2020) was employed. The data scale used is an ordinal data scale with categories: low, medium, and high. All research instruments used a questionnaire previously tested for validity and reliability and were declared valid and reliable.

Data collection process

The mechanism used by researchers to collect data involves distributing questionnaires online, which include a consent form and several statements according to the variables. The questionnaires will be distributed by the researcher, assisted by friends acting as contact persons located in each selected area for the study. The questionnaires were distributed via various social media platforms and addressed to respondents who met the criteria in the five selected cities or districts. The next steps include checking the questionnaire results, tabulating and processing the data, and drawing conclusions from the results.

Data analysis

The data analysis used was the Chi-Square test ($p < 0,05$) and the Spearman rho test ($p < 0,05$).

Ethical clearance

The research has received ethical approval from Commission Ethics Research, Faculty of Nursing, Sekolah Tinggi Ilmu Kesehatan Hang Tuah, based on ethical certificate PE/17/VI/2022/KEP/SHT. During the research, the researcher pays attention to the ethical principles of information to consent, anonymity and confidentiality.

Results

Based on Table 1, it is shown that the observational variable, namely demographic factors, indicates that 59.3% of respondents were aged 19-25 years, 75% were female respondents, 80.7% were student respondents, most respondents were not married yet (97.1%), and 25% of respondents lived in Surabaya. Out of the 140 respondents, on average, they are introverts who sufficiently fulfill their basic needs and experience moderate FoMO.

Based on Table 2, it is shown that out of the 84 people with an introverted personality type, 49 people (58.3%) experienced the

medium category of FoMO, 31 people (36.9%) experienced the high category of FoMO, and 4 people (4.8%) experienced the low category of FoMO. Furthermore, the results indicate that out of the 56 people with an extroverted personality type, 24 people (42.9%) experienced the low category of FoMO, 22 people (39.3%) experienced the medium category of FoMO, and 10 people (17.9%) experienced the high category of FoMO. Based on the results of the Chi-square statistical test, with a p-value of 0.000, it is evident that there is a relationship between personality type and FoMO syndrome in adolescents in East Java. Moreover, the correlation coefficient result, with a value of $r = 0.402$, indicates a moderate level of correlation between personality type and the occurrence of FoMO syndrome.

Table 1. Characteristics of research respondents.

Indicator	Frequency (F)	Percentage (%)
Age		
12-15 years	22	15.7
16-18 years	35	25.0
19-25 years	83	59.3
Gender		
Woman	104	35
Man	36	25
Education		
Student	113	80.7
Not a student	27	19.3
Status		
Not married yet	136	97.1
Married	4	2.9
City or district		
Surabaya	35	25.0
Malang	30	21.4
Jember	28	20.0
Sidoarjo	27	19.3
Pasuruan	20	14.3
Personality type		
Extrovert	56	40
Introvert	84	60
Fulfillment of basic needs		
Good	1	0.7
Enough	125	89.3
Less	14	10
FoMO		
Low	28	20
Medium	71	50.7
High	41	29.3

FoMO, Fear of Missing Out.

Table 2. Bivariate test between personality type and Fear of Missing Out (FoMO) Syndrome.

Personality type	Low		FoMO Medium		High		Total	
	F	%	F	%	F	%	Amount	%
Extrovert	24	42.9	22	39.3	10	17.9	56	100.0
Introvert	4	4.8	49	58.3	31	36.9	84	100.0
Total	28	20.0	71	50.7	41	29.3	140	100.0

Chi-square statistical test value 0.000 ($p < 0.05$), $r = 0.402$

Based on Table 3, it is shown that out of the 125 people whose level of fulfillment of basic needs is sufficient, 70 people (56%) experienced FoMO in the moderate category, 28 people (22.4%) experienced FoMO in the low category, and 27 people (21.6%) experienced FoMO with a high category. Then, the results obtained indicate that 14 people with a lower level of basic needs fulfillment experienced FoMO in the high category, and none experienced FoMO in the low or medium category. Furthermore, the results showed that 1 person with a good level of fulfillment of basic needs experienced FoMO in the medium category. Based on the results of the Spearman rho statistical test, with a p value of 0.000, it is evident that there is a relationship between fulfilling basic needs and FoMO syndrome in adolescents in East Java. Moreover, the correlation coefficient result, with a value of $r=0.433$, indicates a moderate level of correlation between fulfilling basic needs and the occurrence of FoMO syndrome.

Discussion

Based on the results obtained from the questionnaire, adolescents with introversion exhibit discomfort when speaking in front of people and find it challenging to engage in small talk with those around them. However, they harbor a fear that others may have more impressive experiences or are living more fulfilling lives. The relationship between the occurrence of FoMO and personality type can be observed through interactions with others. Considering the characteristics of each individual based on their personality type, it does not rule out the possibility that individuals with an introverted personality type may experience FoMO, albeit at different levels.⁸

Researchers assume that introverted individuals who experience the moderate category of FoMO also experience fear if other people have experiences and lives that are more enjoyable than theirs. Meanwhile, to gain experience and lead an impressive life, an individual must have the courage to take risks in their decisions, be willing to accept challenges, and actively communicate to establish numerous friendships and relationships. Considering the characteristics of introverts, they tend not to be too inclined to take risks and often perceive that others' lives are more enjoyable. For instance, during the physical distancing incidents of the pandemic era, where there were changes in all learning and work methods that had to be conducted online, everyone, especially adolescents, was forced to adapt to the resulting changes in habits. After the pandemic concludes, everyone will need to readapt as activities gradually return to offline modes. As introverts, they may find it

challenging to adapt again and might struggle to communicate effectively, resulting in inadequate access to information needed to fulfill tasks or meet demands in their surroundings. Ultimately, introverted individuals may perceive that others are leading more enjoyable lives while they are not.

Based on the results obtained from the questionnaire, several respondents exhibited positive responses to independence and the fulfillment of various needs. However, respondents also demonstrated negative responses related to adaptation and the need for both giving and receiving love. Individuals aspire to present themselves positively, seek support, desire acknowledgment, and pay attention to others. They also have a need for acceptance in their environment and the ability to connect with others, requiring a medium to avoid exclusion and gain acceptance, with social media being one viable option.

This is supported by questionnaire responses where respondents mentioned attempting to be independent, successfully meeting basic needs such as food and drink, regularly exercising, feeling a lack of sincere love and care from others, experiencing shyness, struggling with adaptation, and receiving sufficient care from those around them.¹⁷ Additionally, respondents demonstrated negative responses concerning personal abilities, achievements, potential, and the ability to fulfill their needs.

These findings indicate that adolescents have low satisfaction scores, and individual life satisfaction can be interpreted based on Abraham Maslow's basic needs theory. Thus, adolescents with low life satisfaction scores are likely to have unmet basic needs, leading to difficulties in overcoming tasks and challenges in their development. If adolescents can fulfill their basic needs, life satisfaction will likely improve, and they will encounter fewer challenges in their life development.¹⁸ Adolescents who use social media with low life satisfaction are characterized by unmet basic needs and may experience an increase in FoMO compared to adolescents with higher life satisfaction.¹⁹

The researcher assumes that the social media used by respondents as an intermediary to always stay connected with other people, aiming to be accepted and not ostracized by their environment, turns out to have a negative impact on users, namely FoMO. This is because social media platforms feature various posts, information, and trends from others in society. The presence of social media can exacerbate the incidence of FoMO if the respondent lacks self-control, is not wise, or fails to use social media appropriately.

Humans live with the motivation to fulfill their basic needs, and the presence of social media, while not essential to human life, also caters to additional psychological needs and a sense of addiction. This results in humans becoming less focused on meeting

Table 3. Bivariate test between fulfillment of basic needs and Fear of Missing Out (FoMO) Syndrome.

Fulfillment of basic needs	Low		FoMO Medium		High		Total	
	F	%	F	%	F	%	Amount	%
Good	0	0.0	1	100.0	0	0.0	1	100.0
Enough	28	22.4	70	56.0	27	21.6	125	100.0
Less	0	0.0	0	0.0	14	100.0	14	100.0
Total	28	20.0	71	50.7	41	29.3	140	100.0

Spearman rho statistical test value 0,000 ($p<0,05$), $r=0,433$.

their basic needs and more inclined to compare themselves with others considered superior based on what they see on social media.

There are several limitations faced by researchers in this study. Researchers cannot interact directly with respondents and cannot identify the difficulties that respondents may face during filling out the questionnaire.

Conclusions

The personality type of teenagers in East Java was found to be mostly introverted. The level of fulfillment of basic needs among teenagers in East Java was mostly in the sufficient category. The level of FoMO among teenagers in East Java was mostly in the medium category. There is a relationship between personality type and the incidence of FoMO syndrome in adolescents in East Java. Additionally, there is a relationship between fulfilling basic needs and the incidence of FoMO syndrome in adolescents in East Java. Adolescents are advised to maximize their basic needs, especially the need for love, and minimize the possibility of experiencing FoMO syndrome by using social media wisely and avoiding comparisons with others. Regarding FoMO related to achievements, adolescents should aim to be enthusiastic and maintain a positive perception when witnessing extraordinary achievements by others. Furthermore, adolescents will be motivated to showcase the positive aspects and the best aspects of their own lives.

References

- Pangemanan L, Irwanto I, Maramis MM. Psychological dominant stressor modification to an animal model of depression with chronic unpredictable mild stress. *Vet World* 2023;16:595-600.
- Sanjaya A, Irwanto, Irmawati M, et al. The relationship between salivary cortisol levels with risk of behavioral-psychosocial-emotional disorders in adolescents aged 12-16 years. *Bali Med J* 2023;12:1451-8.
- Yusuf A, Habibie AN, Efendi F, et al. Prevalence and correlates of being bullied among adolescents in Indonesia: Results from the 2015 Global School-based Student Health Survey. *Int J Adolesc Med Health* 2022;34.
- Shah NM, Aghamohammadi N, Thangiah N, et al. Association between stress and eating behaviour among Malaysian adolescents prior to examination. *Sci Rep* 2023;13:7841.
- McGinnis P. FOMO—Fear of Missing Out: Bijak Mengambil Keputusan di Dunia yang Menyajikan Terlalu Banyak Pilihan. Jakarta, Indonesia: Gramedia Pustaka Utama; 2020. 300 pp.
- Dianovinina K, Surjaningrum ER, Wulandari PY. Specific coping behaviours related to depression in adolescents with a divorced parent. *Int J Public Heal Sci* 2023;12:1337-45.
- Swar B, Hameed T. Fear of missing out, social media engagement, smartphone addiction and distraction: Moderating role of self-help mobile apps-based interventions in the youth. *Heal 2017 - 10th Int Conf Heal Informatics, Proceedings; Part 10th Int Jt Conf Biomed Eng Syst Technol BIOSTEC 2017* 2017;5:139-46.
- Ambarita WN. Fear of Missing Out Ditinjau dari Tipe Kepribadian Ekstrovert dan Introvert. *Skripsi Psikol Univ Negeri Semarang* 2017;1-89.
- Statista. 2022. Poland FOMO scale 2022. Available from: <https://www.statista.com/statistics/1133792/poland-fomo-scale/>
- ZN Milatina, Hafidha LG. Fear of Missing Out sebagai Dampak Psikologis Pandemi Covid-19 pada Masyarakat Indonesia. 2021;1-9.
- Margaretha M, Azzopardi PS, Fisher J, Sawyer SM. School-based mental health promotion: A global policy review. *Front Psychiatry* 2023;14:1126767.
- Akbar RS, Aulya A, Psari AA, Sofia L. Ketakutan Akan Kehilangan Momen (FoMo) Pada Remaja Kota Samarinda. *Psikostudia J Psikol* 2019;7:38.
- Nasir A, Yusuf A, Listiawan MY, et al. Relationship between resilience, coping resources, and psychological well-being with stress of leprosy as a predictor. A correlation study through the structural equation models. *Clin Epidemiol Glob Heal* 2022;17:101151.
- Yulianti PD, Surjaningrum ER. A review of mental health literacy strategy for adolescence. *Int J Public Heal Sci* 2021;10:764-70.
- Bloemen N, De Coninck D. Social media and fear of missing out in adolescents: the role of family characteristics. *Soc Media Soc* 2020;6.
- Triharini M, Armini NKA, Pitaloka SA. The correlation between family role and anemia prevention in pregnancy. *Healthc Low-Resource Settings* 2023;11.
- Shodiq F, Kosasih E, Maslihah S. Need To Belong Dan of Missing Out Mahasiswa Pengguna Media Sosial Instagram. *J Psikol Insight* 2020;4:53-62.
- Kiyassathina A, Sumaryanti IU. Pengaruh Fear of Missing Out terhadap Kepuasan Hidup Remaja Pengguna Instagram di Kota Bandung. 2017;381-6.
- Savitri JA. Impact of Fear of Missing Out on psychological well-being among emerging adulthood aged social media users. *Psychol Res Interv* 2019;2:23-30.