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Research Paper: The Relationship Between Personality Traits and Fear of Missing Out (FoMO) During the COVID-19 Pandemic

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Abstract

Objective: Nowadays, the excessive use of smartphones has become a major public health concern. In this context, a syndrome known as Fear of Missing Out (FoMO) has emerged, which is linked to various mental health issues.**:** This study aimed to examine the relationship between personality traits and Fear of Missing Out (FoMO) during the COVID-19 pandemic.

Methods: This correlational study was conducted on a statistical population consisting of students from the University of Tabriz. A total of 337 students were selected through convenience sampling. Data were collected using the NEO Five-Factor Inventory and the FoMO scale, and analyzed using Pearson correlation analysis at a significance level of 0.05.

Results: The findings revealed a significant positive correlation between FoMO and the personality traits of neuroticism, extraversion, openness to experience, and agreeableness ($P < 0.05$).

Conclusion: Based on the results of this study, it can be concluded that personality traits serve as good predictors of Fear of Missing Out (FoMO).

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1. Introduction

At the beginning of 2020, the World Health Organization declared the outbreak of the coronavirus a global public health emergency. One of the key preventive measures implemented globally to combat the spread of the virus through close contact was physical distancing from others, which resulted in reduced time spent outdoors and increased use of social media. This rise in online engagement during the pandemic brought about positive experiences, such as helping people stay informed, entertained, and cope with stress (Polizzi et al., 2020). However, it was also associated with increased internet addiction disorders (Király, 2020), social anxiety and depression due to overexposure to negative news (Gao, 2020), and potential exposure of young individuals to violent or harmful content. Furthermore, the constant use of social media during the COVID-19 pandemic led to the emergence of FoMO symptoms (Yu, 2020).

FoMO, or the Fear of Missing Out, is defined as a new form of addiction that compels individuals to spend more time on social media out of fear of missing updates and not staying informed about developments on social networking sites (Buglass, 2017; Przybylski, 2013). For individuals with FoMO, participation in social media is particularly appealing because it offers both social connection and engagement. However, this phenomenon comes with consequences. FoMO has been shown to increase social media use among young people (Przybylski, 2013; Vaidya, 1970). A key study by Przybylski et al. (2013), who developed the FoMO scale, revealed that individuals with high levels of FoMO symptoms tend to use social media more frequently and are more likely to use their phones while driving or during class (Przybylski et al., 2013). They suggested that FoMO can be explained through Self-Determination Theory (SDT): according to this theory, certain psychological and social tendencies must be satisfied within interpersonal and cultural contexts to facilitate individual growth, integration, and well-being. If these psychological needs are not fulfilled, they can lead to serious psychological harm. SDT refers to these essential psychological satisfactions as basic psychological needs, which include autonomy, competence, and relatedness (Deci, 2013). It has been shown that FoMO mediates the relationship between unmet psychological needs and engagement with social media.

According to previous studies, FoMO is linked to various mental health issues, including stress (Brown and kuss, 2020), social anxiety (Elhai, 2020; Baker, 2016), depression (Cataldo, 2021), sleep deprivation (Adams, 2017), poor academic motivation (Hetz, 2015), and social media misuse (Richter, 2018). Additionally, increased stress, reduced psychological well-being, and life difficulties (Elhai, 2016) are associated with a higher risk of addictive behaviors and a greater likelihood of experiencing FoMO (Mahapatra, 2019). Given that increased stress and life challenges are common during pandemics, it becomes essential to identify factors contributing to FoMO symptoms during the COVID-19 pandemic.

One such factor examined in past research is personality traits (Przybylski, 2013). Researchers argue that since FoMO is a form of anxiety associated with social situations (Davis, 2001), it can be predicted based on personality traits linked to higher levels of anxiety. Personality traits describe how individuals think, feel, and behave in various situations (Chen, 2017). The Five-Factor Model (FFM) of personality is one of the most widely used frameworks. This comprehensive model seeks to explain the structure of personality (McCrae, 2008) and includes five personality traits: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience (Horzum, 2017). Studies have shown that personality traits can predict social media addiction and FoMO (Jeong, 2017). In fact, the Five-Factor Model is considered a relevant variable in explaining social media addiction. Hamutoglu et al. (2020) found in their research that agreeableness positively affects FoMO, while other traits did not have a significant positive impact (Hamutoglu et al., 2020). Similarly, Rozgonjuk et al. (2021) found that young individuals had higher FoMO scores. Additionally, neuroticism was positively correlated with FoMO, whereas extraversion, openness, agreeableness, and conscientiousness were negatively correlated with FoMO (Rozgonjuk et al., 2021).

In summary, FoMO is a construct involving unmet social needs and is conceptualized as a result of depression and social anxiety (Oberst, 2017). At the same time, the role of personality traits in the development of FoMO symptoms cannot be overlooked. Therefore, exploring the underlying personality traits associated with unmet social needs can play a crucial role in identifying how social media use and FoMO symptoms emerge and evolve. However, a review of previous research reveals a relative lack of attention to this area, especially within Iranian culture, highlighting the need for further investigation. Additionally, to date, no study has simultaneously examined the relationship between personality traits and FoMO during the COVID-19 pandemic. Given the limited and sometimes contradictory findings of the few existing studies, the present research aims to answer the following question: Is there a relationship between personality traits and FoMO during the COVID-19 pandemic?

2. Methods

2.1. Research Design and Participants

The present study employed a descriptive-correlational design. The statistical population consisted of students at the University of Tabriz. According to Delavar (2024), the minimum sample size required for correlational research is 50 participants; therefore, a total of 337 students were selected through convenience sampling (after excluding incomplete or distorted questionnaires). Subsequently, the Personality Traits and FoMO questionnaires were distributed among the participants. After they completed the questionnaires, the responses were collected for data analysis.

2.2. Instruments

NEO Five-Factor Inventory (NEO-FFI): The Five-Factor NEO Personality Inventory was developed by McCrae and Costa (1985) and contains 60 items, each rated on a five-point Likert scale (from "strongly disagree"

to "strongly agree"). The inventory consists of five subscales with 12 items each, corresponding to the personality dimensions of Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness. Scores for each dimension range from 0 to 40. Cronbach's alpha coefficients for these five traits were reported as 0.80, 0.78, 0.69, 0.71, and 0.75, respectively. The correlation coefficients between the long and short forms of the NEO questionnaire were 0.92, 0.90, 0.91, 0.77, and 0.87, respectively. In the Persian version, the reliability coefficients were found to be 0.86, 0.77, 0.73, 0.68, and 0.81 in the same order (McCrae & Costa, 1985). In a study, Anisi et al. (2012) examined the validity and reliability of the short form of the NEO Personality Inventory. In this correlational study, 630 students from a police academy were selected via convenience sampling and completed both the NEO short form and the Eysenck Personality Questionnaire. Pearson correlation was used to analyze the data. Cronbach's alpha results showed that Conscientiousness and Neuroticism had reliabilities of 0.83 and 0.80, respectively, while Agreeableness and Extraversion had lower reliabilities of 0.60 and 0.58. The Openness dimension had an unacceptable internal consistency of 0.39. Additionally, concurrent validity analyses showed that the correlation between the NEO and Eysenck scales for Neuroticism and Extraversion were 0.68 and 0.47, respectively.

Fear of Missing Out (FoMO) Scale: The FoMO scale was originally developed by Przybylski et al. (2013). It is a 10-item instrument measuring anxiety about missing out on others' enjoyable experiences, rated on a 5-point Likert scale (1 = "not at all true of me" to 5 = "extremely true of me"). This is a unidimensional scale and has been validated in relation to smartphone use and negative affect in an experience-sampling study. Rozgonjuk et al. (2021) reported a Cronbach's alpha of 0.76 for the scale. Additionally, in a study by Asadi and Sharifi (2022), the Persian version of the scale demonstrated strong psychometric properties, with a reliability coefficient of 0.95 and a good model fit index of 0.62.

2.3. Implementation Method

After obtaining the necessary permissions, the questionnaires were created in an online format. Due to the COVID-19 situation, the survey links were distributed via online student groups at the University of Tabriz. At the beginning of the questionnaires, participants were assured that there were no right or wrong answers, their responses would remain confidential, and the data would be used solely for research purposes. Informed consent was obtained from all participants before their participation. To analyze the data, Pearson correlation analysis was employed. The data were analyzed using SPSS version 26 at a significance level of 0.05.

3. Results

The sample of this study consisted of 337 participants, of whom 241 were women (71.5%) and 96 were men (28.5%). Among the participants, 168 were married (49.9%) and 169 were single (50.1%). The mean age of the participants was 29.12 years, with a standard deviation of 9.83, ranging from 19

to 75 years. In terms of education level, 194 participants were undergraduate students (57.6%), 122 were postgraduate students (36.2%), and 21 were doctoral students (6.2%).

Table 1

Mean and Standard Deviation of the Research Variables

Variable	Mean	Standard Deviation
Neuroticism	26.39	6.42
Extraversion	21.62	5.64
Openness	22.42	5.00
Agreeableness	10.00	2.99
Conscientiousness	22.26	4.61
FOMO	22.55	7.94

Table 1 shows the descriptive statistics of the research variables. To examine and describe the data obtained from the sample regarding the components of the Big Five personality traits (neuroticism, extraversion, openness, agreeableness, and conscientiousness) and fear of missing out (FOMO), central tendency and dispersion indices were used.

Table 2

Results of the Correlation Matrix of the Research Variables

Variables	1	2	3	4	5	6
1. Neuroticism	1					
2. Extraversion	0.106	1				
3. Openness	-0.157**	0.157**	1			
4. Agreeableness	0.304**	0.033	0.066	1		
5. Conscientiousness	0.224**	0.443**	-0.112*	0.268**	1	
6. FOMO	-0.171**	0.139*	0.205**	0.266**	-0.016	1

Note: ** = significant at $p < 0.01$, * = significant at $p < 0.05$

The results of the correlation coefficients in Table 2 show that there is a significant positive relationship between FOMO and the components of neuroticism, extraversion, openness, and agreeableness from the five-factor personality dimensions ($p < 0.05$).

4. Discussion

This study aimed to examine the relationship between personality traits and FOMO (Fear of Missing Out) during the COVID-19 pandemic. The findings revealed that among the components of the five-factor personality model, openness to experience had a negative relationship, and conscientiousness had a positive relationship with predicting FOMO. These results align with the findings of Hamutoglu et al. (2020) and Rozgonjuk et al. (2021).

To explain these findings, it can be stated that since the COVID-19 pandemic has become a global threat, it has led to psychological distress, which is partly intensified by the abundant information provided by social media, contributing to the development of FOMO (wiederhold, 2020). However, individuals with higher openness to experience tend to be more open-minded, cultured, and in need of variety, and they have a non-dogmatic perspective. These individuals are more likely to experience both positive and negative emotions and believe that all emotions (both positive and negative) should be experienced. As a result, they tend to cope better with ambiguity and new conditions in situations like the pandemic and are less likely to seek out news, entertainment, or attempt to manage the stress related to missing out on information. Therefore, it is logical that there is a negative relationship between openness to experience and FOMO (Hamutoglu et al., 2020).

On the other hand, to explain the positive relationship between conscientiousness and FOMO, two traits can be highlighted: an excessive sense of responsibility and goal-directedness in conscientious individuals. Based on their sense of excessive responsibility, conscientious individuals engage in perfectionistic efforts to avoid bad events and use any means to help others. In terms of goal-directedness, they prefer everything to progress according to order and rules, which are within their control. However, since COVID-19, at least during the time of this study, is an unpredictable and uncontrollable disease, it is natural for conscientious individuals to spend more time

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Conflict of interest

No conflicts of interest were disclosed by the writers.

References

Asadi, H. and Sharifi, F. (2022). compilation and validation of the fear of missing scale in Iranian society. *Applied Research in Consulting*, 5(2), 147-169. compilation and validation of the fear of missing scale in Iranian society

Adams, S. K., Williford, D. N., Vaccaro, A., Kisler, T. S., Francis, A., & Newman, B. (2017). The young and the restless: Socializing trumps sleep, fear of missing out, and technological distractions in first-year college students. *International Journal of Adolescence and Youth*; *22(3)*, 337-348. https://psycnet.apa.org/doi/10.1080/02673843.2016.1181557

Anisi, J. (2012). Validity and reliability of NEO Five-Factor Inventory (NEO-FFI) on university students. *International Journal of Behavioral Sciences*, 5(4), 351-355. https://www.behavsci.ir/article_67753.html

Baker, Z. G., Krieger, H., & LeRoy, A. S. (2016). Fear of missing out: Relationships with depression, mindfulness, and physical symptoms. *Translational Issues in Psychological Science; 2(3)*, 275. https://psycnet.apa.org/doi/10.1037/tps0000075

Brown, L., & Kuss, D. J. (2020). Fear of missing out, mental wellbeing, and social connectedness: a seven-day social media abstinence trial. *International Journal of Environmental Research and Public Health; 17(12)*, 4566. https://doi.org/10.3390%2Fijerph17124566

Buglass, S. L., Binder, J. F., Betts, L. R., & Underwood, J. D. (2017). Motivators of online vulnerability: The impact of social network site use and FOMO. *Computers in Human Behavior; 66*, 248-255. http://dx.doi.org/10.1016/j.chb.2016.09.055

Cataldo, I., Lepri, B., Neoh, M. J. Y., & Esposito, G. (2021). Social media usage and development of psychiatric disorders in childhood and adolescence: a review. *Frontiers in psychiatry*; *11*, 508595. https://doi.org/10.3389/fpsyt.2020.508595

Chen, Z., & Lin, T. (2017). Automatic personality identification using writing behaviours: an exploratory study. *Behaviour & Information Technology*; *36(8)*, 839-845. https://psycnet.apa.org/doi/10.1080/0144929X.2017.1304994

Davis, R. A. (2001). A cognitive-behavioral model of pathological Internet use. *Computers in human behavior*; *17(2)*, 187-195. https://doi.org/10.1016/S0747-5632(00)00041-8

Deci, E. L., & Ryan, R. M. (2013). *Intrinsic motivation and self-determination in human behavior*. Springer Science & Business Media. https://philpapers.org/rec/DECIMA

Dalavar, A. (2024). *Research Methods in Educational and Psychological Sciences*. Tehran: Virayesh.

Elhai, J. D., Levine, J. C., Dvorak, R. D., & Hall, B. J. (2016). Fear of missing out, need for touch, anxiety and depression are related to problematic smartphone use. *Computers in Human Behavior*; *63*, 509-516. https://doi.org/10.1016/j.chb.2016.05.079

Elhai, J. D., Yang, H., Fang, J., Bai, X., & Hall, B. J. (2020). Depression and anxiety symptoms are related to problematic smartphone use severity in Chinese young adults: Fear of missing out as a mediator. *Addictive behaviors; 101*, 105962. https://doi.org/10.1016/j.addbeh.2019.04.020

Gao, J., Zheng, P., Jia, Y., Chen, H., Mao, Y., Chen, S.,... & Dai, J. (2020). Mental health problems and social media exposure during COVID-19 outbreak. *Plos one*; *15(4)*, e0231924. https://doi.org/10.1371/journal.pone.0231924

Hamutoglu, N. B., Topal, M., & Gezgin, D. M. (2020). Investigating Direct and Indirect Effects of Social Media Addiction, Social Media Usage and Personality Traits on FOMO. *International Journal of Progressive Education; 16(2)*, 248-261. https://doi.org/10.29329/ijpe.2020.241.17

Hetz, P. R., Dawson, C. L., & Cullen, T. A. (2015). Social media use and the fear of missing out (FoMO) while studying abroad. *Journal of Research on Technology in Education, 47(4);* 259-272. https://doi.org/10.1080/15391523.2015.1080585

Horzum, M. B., Ayas, T., & Padır, M. A. (2017). Beş faktör kişilik ölçeğinin Türk kültürüne uyarlanması adaptation of big five personality traits scale to Turkish culture. *Sakarya University Journal of Education*; *7(2)*, 398-408. https://doi.org/10.19126/suje.298430

Jeong, H. I., & Kim, Y. (2017). The acceptance of computer technology by teachers in early childhood education. *Interactive Learning Environments*; *25(4)*, 496-512. http://dx.doi.org/10.1080/10494820.2016.1143376

Király, O., Potenza, M. N., Stein, D. J., King, D. L., Hodgins, D. C., Saunders, J. B.,... & Demetrovics, Z. (2020). Preventing problematic internet use during the COVID-19 pandemic: Consensus guidance. *Comprehensive psychiatry*;*100*, 152180. https://doi.org/10.1016/j.comppsych.2020.152180

Mahapatra, S. (2019). Smartphone addiction and associated consequences: Role of loneliness and self-regulation. *Behaviour & Information Technology*; *38(8)*, 833-844. https://psycnet.apa.org/doi/10.1080/0144929X.2018.1560499

McCrae, R. R., & Costa Jr, P. T. (2008). The five-factor theory of personality. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (3rd ed., pp. 159–181). The Guilford Press.https://psycnet.apa.org/record/2008-11667-005

McCrae, R. R., & Costa, P. T. (1985). Updating Norman's "adequacy taxonomy": Intelligence

and personality dimensions in natural language and in questionnaires. *Journal of Personality and Social Psychology, 49*(3), 710–721. https://doi.org/10.1037/0022-3514.49.3.710

Oberst, U., Wegmann, E., Stodt, B., Brand, M., & Chamarro, A. (2017). Negative consequences from heavy social networking in adolescents: The mediating role of fear of missing out. *Journal of adolescence; 55,* 51-60. https://doi.org/10.1016/j.adolescence.2016.12.008

Polizzi, C., Lynn, S. J., & Perry, A. (2020). Stress and coping in the time of COVID-19: Pathways to resilience and recovery. *Clinical Neuropsychiatry, 17*(2), 59. https://doi.org/10.36131/cn20200204

Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in human behavior; 29(4),* 1841-1848. https://psycnet.apa.org/doi/10.1016/j.chb.2013.02.014

Richter, K. (2018). *Fear of missing out, social media abuse, and parenting styles, Electronic Theses and Dissertations*. Paper 81. https://digitalcommons.acu.edu/etd/81/

Rozgonjuk, D., Sindermann, C., Elhai, J. D., & Montag, C. (2021). Individual differences in Fear of Missing Out (FoMO): Age, gender, and the Big Five personality trait domains, facets, and items. *Personality and Individual Differences*; *171*, 110546. http://dx.doi.org/10.1016/j.paid.2020.110546

Vaidya, N., Jaiganesh, S., & Krishnan, J. (1970). Prevalence of Internet addiction and its impact on the physiological balance of mental health. *National Journal of Physiology, Pharmacy and Pharmacology*; *6(1),* 97-97. http://dx.doi.org/10.5455/njppp.2015.5.0511201588

Wiederhold, B. K. (2020). Using social media to our advantage: Alleviating anxiety during a pandemic. *Cyberpsychology, Behavior, and Social Networking; 23(4),* 197-198. http://dx.doi.org/10.1089/cyber.2020.29180.bkw

Yu, S. C., Chen, H. R., Liu, A. C., & Lee, H. Y. (2020). Toward COVID-19 information: infodemic or fear of missing out?. In *Healthcare; 8(4),* 550. MDPI. https://doi.org/10.3390/healthcare8040550