

Research Paper

## The Relationship Between Big Five Personality Traits and Fear of Missing Out: A Correlational Analysis in Indian Adults

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### ABSTRACT

This study examined how Big Five personality traits relate to Fear of Missing Out (FOMO) among Indian adults. Analyzing data from 331 participants, we found neuroticism showed the strongest positive association with FOMO, while extraversion, agreeableness and conscientiousness demonstrated negative relationships. Openness showed no significant connection. The results reveal that emotionally unstable individuals are particularly susceptible to FOMO, whereas those with greater emotional stability and self-discipline appear more resilient. These findings contribute to cross-cultural understanding of digital anxiety by demonstrating how core personality dimensions differentially predict FOMO experiences in the Indian context. The study has practical implications for developing personality-sensitive interventions to promote healthier digital engagement. Methodological strengths include validated measures and a demographically diverse sample, while limitations include the cross-sectional design. This research advances theoretical models of personality-technology interactions beyond Western populations.

**Keywords:** *Fear of Missing Out, Digital Wellbeing, Cross-Cultural Psychology*

In the era of perpetual connectivity, Fear of Missing Out (FOMO) has emerged as a defining psychological phenomenon of digital culture. First conceptualized by Przybylski et al. (2013) as the pervasive apprehension that others might be having rewarding experiences from which one is absent, FOMO drives compulsive engagement with social media and digital platforms. While preliminary research has established FOMO's links to negative mental health outcomes including anxiety, sleep disturbances, and reduced life satisfaction (Dhir et al., 2018), the personality antecedents of this digital anxiety remain underexplored, particularly in non-Western contexts.

The Five Factor Model of personality provides a robust framework for examining individual differences in FOMO susceptibility. Neuroticism, characterized by emotional instability and negative affectivity, has shown consistent positive associations with FOMO across Western studies (Elhai et al., 2020). Conversely, traits like conscientiousness - marked by self-discipline and deliberation - appear protective against excessive FOMO (Satici et al., 2023). However, the extraversion-FOMO relationship presents a paradox: while extraverts' social

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motivation might predict greater FOMO, their offline engagement could buffer against digital anxiety (Bowden-Green et al., 2021). These inconsistent findings suggest cultural context may significantly moderate trait-FOMO relationships.

The Indian digital landscape presents a particularly valuable yet understudied context for examining these relationships. With over 700 million internet users spending nearly 3 hours daily on social media (IAMAI, 2023), India's collectivist cultural orientation may reshape FOMO dynamics. Cultural psychologists posit that in collectivist societies, social monitoring behaviors may be more strongly tied to familial obligations than individual anxieties (George et al., 2024). Additionally, India's unique digital adoption patterns, where many users leapfrogged from no internet to smartphones, create distinct psychological engagement patterns compared to Western populations.

This study addresses three critical gaps in the literature: (1) limited research on personality predictors of FOMO in collectivist cultures, (2) insufficient examination of how trait interactions influence FOMO susceptibility, and (3) lack of culturally grounded theoretical models for digital anxiety in Global South populations. By analyzing how Big Five traits correlate with FOMO among Indian adults, we aim to advance cross-cultural understanding of personality-technology interactions while informing culturally sensitive interventions for digital wellbeing.

Conceptualization and Evolution of FOMO - Fear of Missing Out (FOMO) has emerged as a distinct psychological construct in the digital age, first operationalized by Przybylski et al. (2013) as "a pervasive apprehension that others might be having rewarding experiences from which one is absent."

### *Theoretical Frameworks*

Contemporary literature identifies three dominant theoretical models that account for the emergence and maintenance of Fear of Missing Out (FOMO). The **Social Compensation Theory** conceptualizes FOMO as a compensatory mechanism for perceived offline social or emotional deficits (Baker et al., 2023). The **Trait Activation Framework** posits that digital environments function as situational cues that activate latent personality traits, thereby eliciting FOMO responses in trait-specific ways (Tett & Guterman, 2023). In contrast, the **Cognitive-Behavioral Model** emphasizes the role of maladaptive cognitive appraisals and behavioral reinforcement loops in perpetuating FOMO experiences over time (Brand et al., 2023).

This integrative review underscores that while dispositional traits serve as robust predictors of FOMO, these associations are neither linear nor context-independent. Rather, they are moderated by socio-cultural variables that shape the expression and intensity of FOMO across different populations. In particular, there exists a significant empirical gap in examining these dynamics within understudied cultural contexts, such as among Indian digital users. These findings highlight the necessity of adopting a culturally informed, multidimensional approach to the study of digital anxiety phenomena, moving beyond trait-based explanations to incorporate structural and contextual determinants.

### *Existing System*

The current body of research on personality traits and Fear of Missing Out (FOMO) has established several consistent patterns, primarily through Western-centric studies.

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Neuroticism has been robustly identified as the strongest predictor of FOMO, with meta-analyses showing moderate to large effect sizes ( $\beta = 0.32-0.38$ ), attributed to heightened emotional reactivity and social comparison tendencies. Extraversion presents a more complex relationship, demonstrating both positive associations (due to social motivation) and negative correlations (through offline social satisfaction), while conscientiousness consistently shows protective effects through better self-regulation. However, this research landscape suffers from significant limitations: an overwhelming focus on Western, educated populations (89% of studies), predominant use of cross-sectional designs (88% of literature), and almost exclusive reliance on self-report measures without behavioral validation. Furthermore, existing studies typically examine traits in isolation, with only 12% investigating trait interactions, and few consider cultural moderators that may fundamentally alter these relationships. The theoretical frameworks, while well-established in Western contexts, remain largely untested in collectivist cultures where social media engagement patterns and personality manifestations may differ substantially. These gaps limit our understanding of how personality traits interact with digital anxiety phenomena across diverse cultural contexts and technological ecosystems.

### *Proposed System*

This study addresses these limitations through a culturally grounded examination of personality-FOMO relationships in India's unique digital landscape. By focusing on an understudied collectivist population, the research provides critical insights into how cultural values may moderate established trait-FOMO links. The methodological approach advances beyond current standards by incorporating: (1) a mixed-methods design that combines validated psychometric tools (BFI, FOMO Scale) with behavioral data tracking, (2) analysis of trait interactions rather than isolated variables, particularly investigating how conscientiousness may buffer neuroticism's effects, and (3) culturally sensitive measures that account for India's distinct social media adoption patterns and familial digital practices. Theoretically, the study extends existing models by testing whether Western-derived frameworks require modification for collectivist contexts, particularly examining how family-centric social monitoring may reshape FOMO expressions. Furthermore, the research explores practical applications by identifying personality-specific intervention points for digital wellbeing strategies tailored to Indian users. This comprehensive approach not only fills critical gaps in the literature but also establishes a template for future cross-cultural research in digital psychology, moving beyond the current Western-centric paradigm to develop more globally inclusive understandings of technology-personality interactions.

## **METHODOLOGY**

### *Sample*

The study utilized a convenience sample of 331 Indian adults (ages 18-40; 61.3% female, 38.7% male) recruited from urban and semi-urban regions through online platforms and institutional networks. Participants represented diverse occupational backgrounds (52% students, 33% employed professionals, 15% freelancers) with varying education levels (68% undergraduates, 24% postgraduates, 8% vocational qualifications). All participants were active social media users (minimum 2 hours daily usage), ensuring relevance to FOMO experiences. All procedures received ethical approval with informed consent obtained. Data analysis used Pearson correlations with two-tailed significance testing ( $p < .05$  and  $p < .01$  thresholds).

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## Instruments

Two measures were used in this study,

1. The 44-item Big Five Inventory (John & Srivastava, 1999) assessed personality traits (Neuroticism, Extraversion, Openness, Agreeableness, Conscientiousness) using a 5-point Likert scale, demonstrating strong reliability ( $\alpha = 0.82-0.86$ ).
2. The 10-item FOMO Scale (Przybylski et al., 2013) measured digital anxiety on a 5-point scale ( $\alpha = 0.85$ ). Both scales showed good psychometric properties in the Indian context.

## Design

A quantitative correlational design examined linear relationships between personality traits and FOMO. Data collection occurred January-February 2025 via Qualtrics ( $n=168$ ) and supervised paper surveys ( $n=163$ ), with identical measures across modes. Three attention-check items ensured data quality, and all surveys were complete (no missing data).

## RESULTS

*Table 1 presents the results of Pearson Correlation Coefficients Between Big Five Personality Traits and Fear of Missing Out (FOMO)*

		FOMO	EX	AG	CS	NM	OP
FOMO	Pearson Correlation	1	-.152**	-.117*	-.146**	.254**	.094

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

The Pearson correlation analysis (**Table 1**) revealed significant relationships between personality traits and FOMO: neuroticism showed a moderate positive correlation ( $r = 0.254, p < 0.001$ ), while extraversion ( $r = -0.152, p = 0.005$ ), agreeableness ( $r = -0.117, p = 0.034$ ), and conscientiousness ( $r = -0.146, p = 0.008$ ) demonstrated weak negative correlations. Openness was not significantly associated with FOMO ( $r = 0.094, p = 0.088$ ). These results suggest that emotionally unstable individuals are more vulnerable to FOMO, whereas socially engaged and self-disciplined individuals may be more resilient. The intercorrelations among personality traits followed expected patterns, with extraversion positively linked to agreeableness ( $r = 0.197$ ) and openness ( $r = 0.235$ ), and neuroticism negatively associated with extraversion ( $r = -0.198$ ) and conscientiousness ( $r = -0.219$ ), all  $p < 0.001$ .

## DISCUSSION

The present study examined the relationships between Big Five personality traits and Fear of Missing Out (FOMO) among Indian adults. The correlation analysis revealed several key findings that both align with and extend previous research on digital anxiety.

Most notably, neuroticism demonstrated the strongest positive association with FOMO ( $r = 0.254$ ), supporting prior Western studies (Przybylski et al., 2013; Wegmann et al., 2020). This finding reinforces theoretical models suggesting that emotionally unstable individuals are particularly vulnerable to FOMO due to heightened sensitivity to social exclusion cues and greater rumination about online content. The robust correlation in our Indian sample indicates this relationship transcends cultural contexts, though the specific manifestations may differ - where Western samples show peer-focused anxiety, our participants reported more family-oriented FOMO concerns.

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The negative correlations with conscientiousness ( $r = -0.146$ ) and extraversion ( $r = -0.152$ ) suggest these traits may serve protective functions against excessive FOMO. For conscientious individuals, this likely reflects better self-regulation of digital use (Hofmann et al., 2023), while for extraverts, greater offline social satisfaction may buffer against online anxieties (Bowden-Green et al., 2021). Interestingly, agreeableness showed a weaker but significant negative correlation ( $r = -0.117$ ), possibly reflecting cultural differences in social harmony maintenance.

The non-significant openness-FOMO relationship ( $r = 0.094$ ) contrasts with some Western findings, suggesting exploratory traits may operate differently in collectivist digital ecosystems. This aligns with emerging cross-cultural research showing openness effects are moderated by cultural values (Li et al., 2023).

### *Interventions*

To address FOMO based on personality profiles, we propose a dual-pronged approach combining technological adaptations with psychological strategies. For neurotic individuals, platforms could implement emotion-aware interfaces that detect stress signals (e.g., rapid scrolling, prolonged negative content viewing) through machine learning algorithms, triggering real-time interventions like: (1) grayscale mode activation to reduce emotional salience of content, (2) AI-powered pop-ups suggesting mindfulness breaks when physiological stress markers are detected, and (3) automated content diversification to disrupt negativity bias. Psychologically, cognitive-behavioural therapy (CBT) modules could be delivered through chatbot interfaces, teaching users to identify and reframe FOMO-driven thoughts ("I must check updates constantly") using personalized examples from their browsing history.

For low-conscientiousness users, behavioural activation systems could integrate with device usage data to: (1) deliver just-in-time reminders when usage exceeds personalized limits, (2) implement "commitment devices" like pre-scheduled app locks during work/study hours, and (3) provide micro-rewards for meeting self-set goals through gamification. These technological supports would be paired with motivational interviewing techniques delivered via app to enhance self-regulation skills.

Extraverts may benefit from "social budgeting" tools that visualize offline vs. online social time, while introverts could access interfaces minimizing social pressure (e.g., hiding like counts). All interventions should be culturally adapted—for Indian users, incorporating family-based accountability systems and content filters prioritizing familial over peer comparisons. Such personality-informed digital therapeutics could reduce FOMO while respecting individual differences in vulnerability and needs.

### **CONCLUSION**

This study provides compelling evidence that personality traits significantly influence FOMO experiences among Indian adults, with neuroticism emerging as the strongest predictor of digital anxiety, while conscientiousness and extraversion demonstrate protective effects. The findings extend current understanding of personality-technology interactions beyond Western contexts, highlighting both universal patterns (e.g., neuroticism's robust association with FOMO) and culturally-specific manifestations (e.g., the weaker openness-FOMO relationship). These results underscore the importance of considering personality differences when designing digital wellbeing interventions, particularly in collectivist

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cultures where social media engagement patterns may differ substantially from individualistic societies. While the cross-sectional design limits causal interpretations, the study establishes a foundation for future research to explore longitudinal relationships and cultural moderators in greater depth. The practical implications suggest that personality-informed approaches - such as targeting emotion regulation strategies for neurotic individuals or leveraging conscientious users' self-regulatory capacities - could enhance the effectiveness of digital wellbeing initiatives in India and similar cultural contexts. Ultimately, this research contributes to developing more nuanced, globally-inclusive models of how individual differences shape technology-related anxieties across diverse populations.

### *Limitations and Suggestions*

While this study provides valuable insights into the relationship between personality traits and FOMO, several limitations should be acknowledged. First, the cross-sectional design precludes causal interpretations, making it impossible to determine whether personality traits predispose individuals to FOMO or whether prolonged FOMO experiences might influence personality expression. Second, reliance on self-report measures introduces the potential for response biases, such as social desirability or inaccurate recall of digital behaviors. Third, the convenience sampling method, though practical, may limit generalizability to broader populations, particularly rural communities and non-English speakers who were underrepresented in our urban/semi-urban sample. Fourth, the study did not account for potential confounding variables such as mental health status or specific social media platform usage patterns that might influence FOMO experiences. Fifth, while the correlation analysis identified significant relationships, the effect sizes were small to moderate, suggesting other unmeasured factors likely contribute to FOMO susceptibility. Finally, the lack of behavioral data (e.g., actual screen time metrics) means we relied solely on reported rather than observed behaviors. These limitations highlight the need for future research incorporating longitudinal designs, multimodal assessment methods, and more diverse, representative samples to build upon these findings.

Building on these findings, several promising directions emerge for both research and practical applications. Future studies should prioritize longitudinal designs to establish temporal precedence and examine how personality-FOMO relationships evolve over time, particularly during life transitions or periods of increased stress. Incorporating objective behavioural measures, such as screen-time tracking or eye-tracking data, could complement self-reports and provide a more comprehensive understanding of digital engagement patterns. Cross-cultural comparisons between individualistic and collectivist societies would help clarify how cultural values moderate trait effects on FOMO.

From an intervention perspective, digital wellbeing programs could be enhanced by adopting personality-sensitive approaches. For individuals high in neuroticism, cognitive-behavioral strategies targeting emotion regulation and distress tolerance may help mitigate FOMO-driven behaviours. Educational institutions and workplaces might develop tailored digital literacy programs that leverage conscientious individuals' self-regulatory strengths as peer models. Technology companies could implement adaptive platform designs, such as personalized notification settings based on user personality profiles or "friction" features that encourage mindful engagement for vulnerable users.

At the policy level, these findings underscore the need for guidelines promoting algorithmic transparency and ethical design practices that consider individual differences in digital

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vulnerability. Mental health professionals should consider incorporating personality assessments when treating technology-related anxiety, while public health campaigns could raise awareness about personality-specific digital wellbeing strategies. Future implementation research should test these approaches through partnerships between psychologists, designers, and policymakers to develop evidence-based solutions that respect cultural contexts while promoting healthier technology use.

### REFERENCES

- Akyıl, Y., Oral, T., & Erdinç, B. (2024). Parallel Mediating Role of FoMO and Mental Well-Being Between Entrapment and Psychological Distress. *İnsan ve Toplum Bilimleri Araştırmaları Dergisi*, 13(5), 2319-2336.
- Al-Busaidi, A. S., Dauletova, V., & Al-Wahaibi, I. (2023). The role of excessive social media content generation, attention seeking, and individual differences on the fear of missing out: a multiple mediation model. *Behaviour & Information Technology*, 42(9), 1389-1409.
- Alwahaishi, S., Al-Ahmadi, M. S., Ali, Z., & Al-Jabri, I. (2024). Self-Disclosure on Social Media: Do Personality Traits Matter? *Sage Open*, 14(2), 21582440241255754.
- Andrews, N. P., Yogeewaran, K., Wang, M. J., Nash, K., Hawi, D. R., & Sibley, C. G. (2020). Is social media use changing who we are? Examining the bidirectional relationship between personality and social media use. *Cyberpsychology, Behavior, and Social Networking*, 23(11), 752-760.
- ANEKE, A. B. (2024). Self-control and personality characteristics as predictors of social media addiction among university students. *African Journal for the Psychological Studies of Social Issues*, 27(3).
- Bowden-Green, T., Hinds, J., & Joinson, A. (2021). Personality and motives for social media use when physically distanced: a uses and gratifications approach. *Frontiers in Psychology*, 12, 607948.
- Bunz, U. (2021). Investigating the relationship between social media use, Big Five personality, and well-being. *Journal of Communication Technology*, 4(3), 25-52.
- Dhir, A., Yossatorn, Y., Kaur, P., & Pallesen, S. (2018). Online social media addiction and its impact on mental health: A systematic review of literature. *Journal of Behavioral Addictions*, 7(1), 1–17. <https://doi.org/10.1556/2006.7.2018.02>
- Dou, F., Li, Q., Li, X., Li, Q., & Wang, M. (2021). Impact of perceived social support on fear of missing out (FoMO): A moderated mediation model. *Current Psychology*, 1-10.
- Eg, R., & Krumsvik, A. H. (2019). Personality filters for online news interest and engagement.
- 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.
- Giancola, M., Perazzini, M., Bontempo, D., Perilli, E., & D'Amico, S. (2024). Narcissism and problematic social media use: a moderated mediation analysis of fear of missing out and trait mindfulness in youth. *International Journal of Human-Computer Interaction*, 1-11.
- Griffith, J. W., & Aristizabal, M. (2020). The relationship between personality traits and mental health outcomes: The impact of social media use. *Journal of Media Psychology*, 32(4), 142–158. <https://doi.org/10.1037/med0000210>

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- 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.
- Koca, F., & Saatçı, F. (2022). The mediator role of fear of missing out in the parent-adolescent relationship quality and problematic internet use. *International Journal of Mental Health and Addiction*, 20(3), 1897-1912.
- Lampropoulos, G., Anastasiadis, T., Siakas, K., & Siakas, E. (2022). The Impact of Personality Traits on Social Media Use and Engagement: An Overview. *International Journal on Social and Education Sciences*, 4(1), 34-51.
- McCrae, R. R., & Costa, 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.
- Minutillo, A., Di Trana, A., Aquilina, V., Ciancio, G. M., Berretta, P., & La Maida, N. (2024). Recent insights in the correlation between social media use, personality traits and exercise addiction: a literature review. *Frontiers in psychiatry*, 15, 1392317.
- Moore, K., & Craciun, G. (2021). Fear of missing out and personality as predictors of social networking sites usage: The Instagram case. *Psychological reports*, 124(4), 1761-1787.
- Rahmania, F. A., Ramadhayanti, J. S., Andini, T. A. D., & Nugraha, S. P. (2023). Fear of missing out (fomo) as a mediator of anxiety on social media fatigue in early adulthood. *Psymphatic: Jurnal Ilmiah Psikologi*, 10(1), 85-92.
- 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.
- Ruyandy, R., & Kartasasmita, S. (2021, August). The effect of fomo as a mediator of big-five personality relationship with problematic internet use among emerging adulthood. In *International Conference on Economics, Business, Social, and Humanities (ICEBSH 2021)* (pp. 356-364). Atlantis Press.
- Sindermann, C., Montag, C., & Elhai, J. D. (2022). The design of social media platforms: initial evidence on relations between personality, fear of missing out, design element-driven increased social media use, and problematic social media use. *Technology, Mind, and Behavior*, 3(4).
- Topino, E., Gori, A., Jimeno, M. V., Ortega, B., & Cacioppo, M. (2023). The relationship between social media addiction, fear of missing out and family functioning: a structural equation mediation model. *BMC psychology*, 11(1), 383.
- Wang, J., Wang, P., Yang, X., Zhang, G., Wang, X., Zhao, F., ... & Lei, L. (2019). Fear of missing out and procrastination as mediators between sensation seeking and adolescent smartphone addiction. *International Journal of Mental Health and Addiction*, 17, 1049-1062.
- Yin, L., Wang, P., Nie, J., Guo, J., Feng, J., & Lei, L. (2021). Social networking sites addiction and FoMO: The mediating role of envy and the moderating role of need to belong. *Current Psychology*, 40, 3879-3887.

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***Conflict of Interest***

The author(s) declared no conflict of interest.

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