

BIG FIVE PERSONALITY TRAITS AND SOCIAL MEDIA ADDICTION AMONG YOUNG ADULTS

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Abstract

Social media use among young adults has become an important aspect of their daily life. The aim of this study is to examine the relationship between the Big Five Personality Traits (Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism) and social media addiction among young adults. The study employed a quantitative cross-sectional survey design, and 300 respondents aged between 18 and 25 years were selected from the community, online platform, and campus. Data was collected online using the Big Five Inventory (BFI-44) and Social Media Addiction Scale (SMA-S). The findings indicated that Neuroticism had the highest positive correlation with social media addiction ($\beta = .38, p < .001$), followed by Extraversion ($\beta = .26, p < .001$). Conscientiousness was an important negative predictor ($\beta = -.21, p < .01$), lending support to its role in preventing compulsive usage. For agreeableness and Openness to experience, there was no significant prediction of social media addiction. The regression model explained 32% of the variance in the social media addiction scores ($R^2 = .32$). The findings highlight the importance of personality in the digital lives of young adults and the need to develop personality-based interventions to help reduce social media addiction and promote digital well-being.

1- INTRODUCTION

Social media has impacted the way young people connect, socialize, and communicate with one another. In recent years, researchers and mental health experts have reported overuse of social media and its addictive nature (Andreassen, 2020). The addiction of social media is largely known as psychologic dependence, neglect of offline activities, and heavy use of social networks, just like the other behavioral addictions (Hormes et al., 2021). Social media has a strong presence in our lives, and it is essential to know the factors that make some people more prone to addiction. Personality characteristics have repeatedly been

demonstrated to be critical to many behavioral dispositions, including online behaviors. The five personality traits (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) provide a complete picture in the understanding of individual differences in behavior, cognition, and emotion (McCrae & Costa, 2020).

For instance, Neuroticism is associated with greater susceptibility to addiction, while Conscientiousness is a protective factor (Brailovskaia et al., 2021; Marino et al., 2021). The relationship between these characteristics and patterns of social media engagement may provide insights into factors that are likely to be

associated with risk and/or resiliency for youth. Empirical studies indicate that the problem of development, socialization, and cognition renders young adults particularly vulnerable to social media addiction (Kuss et al., 2020). At this stage, people are developing their identity, and they are more vulnerable to others' opinions, as well as more reliant on digital communication for social validation (Montag et al., 2021). Therefore, personality characteristics can have a positive or negative effect on the risk of problematic social media use. For example, those with high scores for Extraversion may use social media to maintain social connections, while those with high scores for Neuroticism may engage in social media use to try to regulate stress or anxiety (Andreassen et al., 2020; Marino et al., 2020).

The link between the Big Five traits and social media addiction among youth is an area of study that has been examined, but there are some unanswered questions about the relationship between the two constructs. Most of the research studies have been carried out on Western samples, while only a limited number of studies were found in a cross-cultural context (Kircaburun et al., 2022). Furthermore, social networks are evolving, and new research relevant to the current experience of social networks, such as short-form video applications and interactivity, is needed. Thus, the current study is aimed at exploring the relationship between the Big Five Personality Traits and social media addiction among young adults participating in this study using quantitative survey research. To identify personality traits that are associated with a higher risk of social media addiction, for prevention and digital well-being strategies.

1.2 Problem Statement

The rise of social media among young adults has raised concerns about its possible effects on mental health and functioning in daily life (Kircaburun & Griffiths, 2020). Some associations between social media addiction and anxiety, depression, sleep disorders, and low grades or work performance have been found (Hormes et al., 2021). Although the negative impacts of social media usage are known, few

studies have explored the impact of personality factors, specifically the Big Five Personality Traits, on social media addiction. Most of the studies conducted so far are on certain platforms, with certain age groups, or on culturally homogeneous samples, and there is a need for research to examine the general pattern of behavior of young adults (Kircaburun et al., 2022). To develop interventions, education, and digital well-being strategies that are tailored to each individual's psychological profile, it is essential to understand which personality traits increase the risk of developing addictive social media use. The present study aims to fill this gap and examine the relation between the Big Five traits and social media addiction in a modern and diverse sample of young adults.

1.3 Research Questions

Based on the problem statement and literature review, the study seeks to answer the following research questions:

1. **RQ1:** What is the relationship between Neuroticism and social media addiction among young adults?
2. **RQ2:** How does Extraversion influence the risk of social media addiction in young adults?
3. **RQ3:** To what extent does Conscientiousness act as a protective factor against social media addiction?
4. **RQ3:** Which of the Big Five Personality Traits are significant predictors of social media addiction among young adults?

1.4 Research Objectives

The primary aim of this study is to explore the relationship between the Big Five Personality Traits and social media addiction among young adults using a quantitative survey approach. The specific objectives are:

1. To examine the relationship between Neuroticism and social media addiction.
2. To investigate the influence of Extraversion on social media addiction levels.
3. To assess the protective role of Conscientiousness against social media addiction.

2- Literature Review

Individual differences in social media engagement and social media addiction need to be taken into account, and personality traits are important factors. Neuroticism has been proven consistently to be a strong predictor of problematic social media use among all the Big Five personality traits. Those who score high on Neuroticism tend to be prone to emotional instability and may use social media to cope with stress, anxiety, and social insecurity (Andreassen et al., 2020). For example, a longitudinal study discovered that young adults with higher scores on Neuroticism had higher tendencies to compulsively check social media notifications and to regulate their moods through digital means (Kircaburun et al., 2022). Similarly, Brailovskaia and Margraf (2021) concluded that in different cultures, Neuroticism was positively correlated with social media addiction, indicating that those who are emotionally reactive are sensitive to social media overuse.

There are also some effects of extraversion on social media behaviors, but they are slightly different. Extraverted individuals are social, active, and may seek socialization, and social media can be a place of socialization and development of social networks (Marino et al., 2021). Empirical data indicate that extraverts spend more time engaging in social interactions online, but may not suffer negative consequences unless usage is excessive (Kuss et al., 2020). The results of a survey of 1200 young adults showed that extraversion was positively associated with time spent on social media, while the association between time spent on social media and addictive symptoms was mediated by Conscientiousness, which was a protective factor (Andreassen, 2020).

Conscientiousness is associated with low social media addiction in all studies. Conscientious people are self-disciplined, organized, and goal-directed, which decreases the risk of engaging in compulsive online behaviors (Hormes et al., 2021). Kircaburun and Griffiths (2020) found that high Conscientiousness reduced the relationship between online social networking and the maladaptive behaviors, making it a

protective trait. Likewise, Montag et al. (2021) recommended that the enhancement of self-regulation might be a promising approach to reducing social media addiction in people low in Conscientiousness. Openness to experience, which includes curiosity, creativity, and a tendency to seek novelty, is associated with mixed patterns with social media addiction. Highly open people are believed to be more inclined to experiment with various social media platforms and content, which may lead them to encounter addictive patterns (Kircaburun et al., 2022). However, the relationship is not always linear, as individuals high in Openness may engage in more purposeful and explorative online behavior rather than compulsive use. Recent meta-analyses suggest that Openness is more likely to predict engagement rather than addictive behavior, as traits like Neuroticism or low Conscientiousness of others are more predictive of addictive behavior (Brailovskaia et al., 2021).

The connection between agreeableness and social media addiction has been found to be less consistent and more complex. The agreeable ones are cooperative, empathetic, and interested in social harmony, and this can result in prosocial online behaviors compared with compulsive, self-focused behaviors (Andreassen et al., 2020). Marino et al. (2020) report that low Agreeableness slightly raised the likelihood of problematic engagement, which may have been the result of more competitive or self-promotional online behaviors.

Recent studies also highlight the **interaction between personality traits and demographic factors**, including the effect of age, gender, and cultural context on social media addiction (Kircaburun et al., 2022; Montag et al., 2021). For instance, gender differences indicate that women might be more vulnerable to compulsive social media use because of a need for social validation, whereas men might be more vulnerable to addictive gaming-related content online (Kuss et al., 2020). The results of this study emphasize the need to investigate the social media addiction of young adults from a dual perspective of personality and context.

Though there is increasing evidence, there are still gaps in the literature. Most studies are of a cross-sectional design, which does not allow for causal interpretations, and studies conducted in various cultural contexts and with various social media types such as TikTok, Instagram Reels, and interactive messaging apps are needed (Kircaburun & Griffiths, 2020; Brailovskaia et al., 2021). These gaps are filled in this study, which investigates the relationship between the Big Five personality traits and social media addiction among young adults using a quantitative survey design with updated information for the current digital landscape.

2.1 Hypotheses

Based on prior research and theoretical rationale, the following hypotheses are proposed:

H1: Neuroticism will be positively associated with social media addiction.

H2: Extraversion will be positively associated with social media addiction.

H3: Conscientiousness will be negatively associated with social media addiction.

H4: Agreeableness will be negatively associated with social media addiction.

H5: Openness to Experience will be positively associated with social media addiction.

3- Methodology

The design of this study was a quantitative survey research to examine the relationship between the Big Five Personality Traits and social media addiction among young adults. The research design was selected to enable the data to be collected and analyzed systematically to identify correlations and predictive relationships between personality traits and addictive social media behaviors. The survey method was considered suitable because it enables data to be gathered from a large number of individuals in an efficient manner and provides consistency in measurement for all individuals. This research was cross-sectional, meaning social media usage and personality traits of the participants in the study were taken at a single point in time.

This study involved 300 young adults (18-25 years old). The age group was selected because it is one

of the most active populations in terms of using social media, and is going through significant developmental and social changes that could impact how they use social media. The candidates were drawn from the campus, online, social media, and community forums. The inclusion criteria were social media users who provided informed consent to participate in the study. A similar number of men and women participated to ensure gender parity. The generalizability of the findings was enhanced by using a wide range of academic disciplines and cultural backgrounds. The instruments used in this study were two main questionnaires. The first instrument used was the Big Five Inventory (BFI-44), which assesses the five broad personality traits: Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism. Several items were utilized for each trait, and rated on a 5-point Likert Scale from strongly disagree to strongly agree. High scores were reflective of high levels of the personality trait. The second instrument was the Social Media Addiction Scale, which measured compulsive social media use, social media obsession, and social media negative consequences. The items were also rated on a 5-point Likert scale, ranging from strongly agree to strongly disagree, which is a 1-5 scale, with 1 signifying the lowest degree of social media addictions and 5 signifying the highest degree of social media addictions. The two instruments were administered online to make them easily accessible and to ensure participants could complete the survey at their own time.

Data collection was carried out for a duration of four weeks. The participants were provided with a link to the study information and consent form, and then were presented with the survey instruments. The survey was designed to be anonymous and confidential, which minimizes the possibility of response bias and honesty in reporting. The participants were asked that their answers would be used only for research and that there were no consequences for their participation or their absence. All surveys were screened for missing data and inconsistencies before analysis. Only full and valid answers were added to the data set.

The statistical software was used for data analysis, and the relationship between Big Five Personality Traits and social media addiction was explored. Descriptive statistics were computed to give general information about the features of the samples and the distribution of the scores of the personality and social media addiction scales. Pearson correlation coefficient was used to evaluate the strength and direction of the relationships between the personality traits and social media addiction. Moreover, multiple regression analysis was performed to assess the predictive power of the Big Five traits for variance in social media addiction scores. Because the results of regression analyses were used to check the validity of the results, the assumptions of normality, linearity, and homoscedasticity were checked. The level of significance was fixed at

0.05, which indicates the value of statistical significance.

Results

The data gathered from 300 young adults were analyzed to investigate the relationship between the Big Five Personality Traits and social media addiction. Descriptive statistics showed that the sample had a medium to high score on Extraversion and Agreeableness, and a medium score on Conscientiousness and Openness. Neuroticism scores ranged widely among participants, suggesting that there was a range of emotional stability within the sample. The social media addiction score mean was 31.4, and the standard deviation was 8.2, indicating that there is a moderate score of social media addiction among the participants.

Table 1: Descriptive Statistics for Big Five Traits and Social Media Addiction

Variable	Mean	Standard Deviation	Minimum	Maximum
Openness	3.52	0.78	1.80	5.00
Conscientiousness	4.06	0.65	2.50	5.00
Extraversion	3.87	0.71	1.90	5.00
Agreeableness	3.92	0.68	2.00	5.00
Neuroticism	2.95	0.81	1.00	4.80
Social Media Addiction	31.40	8.20	12	50

Descriptive statistics were obtained for male and female participants to examine for possible gender differences. The mean scores of social media addiction was higher for female participants (M = 32.2, SD = 7.9) than the mean scores of male participants (M = 30.3, SD = 8.3).

The females also had marginally higher scores on Extraversion and Neuroticism, while males had slightly higher scores on Conscientiousness. These differences were not examined for significance in this descriptive overview but serve to illustrate variability in the use of social media.

Table 2: Gender-Based Descriptive Statistics for Key Variables

Variable	Male (n=140)	Female (n=160)
Openness	3.50 ± 0.77	3.54 ± 0.79
Conscientiousness	4.10 ± 0.63	4.03 ± 0.66
Extraversion	3.82 ± 0.70	3.91 ± 0.72
Agreeableness	3.88 ± 0.67	3.95 ± 0.69
Neuroticism	2.88 ± 0.79	3.02 ± 0.82
Social Media Addiction	30.3 ± 8.3	32.2 ± 7.9

The Pearson correlation analyses were performed to examine the relationships between Big Five traits and social media addiction. Results reveal that the hypothesis of an association between emotional instability and compulsive use of social media networks was supported because the variables of Neuroticism and social media addiction were positively correlated ($r = .42, p < .001$). There was also a positive correlation

between extraversion and social media engagement ($r = .31, p < .001$), indicating that socially outgoing people tend to be more active in social media. Conscientiousness was significantly negatively associated with social media addiction ($r = -.28, p < .001$), suggesting that it has a protective effect. Agreeableness and Openness had relatively small non-significant correlations at the 0.05 level ($r = -.09$ and $r = .11$, respectively).

Table 3: Correlation Matrix Between Big Five Traits and Social Media Addiction

Variable	1	2	3	4	5	6
1. Openness	1					
2. Conscientiousness	.21**	1				
3. Extraversion	.18**	.14*	1			
4. Agreeableness	.12*	.25**	.15**	1		
5. Neuroticism	-.05	-.30**	-.10	-.12*	1	
6. Social Media Addiction	.11	-.28**	.31**	-.09	.42**	1

*Note: * $p < .05$, ** $p < .01$

Multiple regression analysis was conducted to identify those factors of the Big Five traits that predict social media addiction when controlling for other traits. The regression model was significant ($F(5, 294) = 28.36, p < .001$) and accounted for 32% of the variance in social media addiction scores ($R^2 = .32$). Neuroticism

was the most significant positive predictor ($\beta = .38, p < .001$), followed by Extraversion ($\beta = .26, p < .001$). Conscientiousness was a significant negative predictor ($\beta = -.21, p < .01$), while Agreeableness and Openness did not significantly predict social media addiction in the model.

Table 4: Multiple Regression Predicting Social Media Addiction from Big Five Traits

Predictor	B	SE B	β	t	p
Openness	1.12	0.75	.09	1.50	0.135
Conscientiousness	-2.43	0.88	-.21	-2.76	0.007
Extraversion	2.31	0.72	.26	3.21	0.001
Agreeableness	-0.88	0.80	-.07	-1.10	0.273
Neuroticism	3.56	0.68	.38	5.24	<0.001

The findings showed that Neuroticism and Extraversion are the traits that are positively related to social media addiction, while Conscientiousness is negatively related. The two constructs of Agreeableness and Openness failed

to have a significant predictive value in this sample, indicating that emotional stability, sociability, and self-discipline are likely the main personality factors in determining social media addiction.

5- Discussion

The findings of this research can be of great value in understanding the relationship between the Big Five Personality Traits and social media addiction among young adults. In line with the first hypothesis, **Neuroticism was positively related** to social media addiction, also being the most significant in the regression model. People with high scores on Neuroticism tend to be more emotionally responsive, more stressed, more anxious, and more likely to look for ways to manage negative emotions, a pattern that has been supported by prior studies that found a strong relationship between emotional instability and problematic social media use (Meynadier et al., 2024). This is corroborated by meta-analytic studies, which revealed that problematic social media use was significantly associated with higher Neuroticism after controlling for other traits (Meynadier et al., 2024). The psychological pathways linking this association imply that those with high Neuroticism scores might adopt social media as a way to regulate mood or to avoid negative emotions, thereby rendering the social media platforms more attractive when dealing with emotional discomfort.

The second hypothesis was also supported, with extraversion being positively related to social media addiction. Extraverts are socially-oriented individuals who seek social interaction, excitement, and external validation, and this is all provided through online social networks. This is in line with research indicating that Extraverts tend to be high in social media engagement, perhaps because social media provides numerous links and reinforcing experiences (Meynadier et al., 2024). Previous studies have suggested that this correlation can differ depending on context and measurement tools, but the positive correlation in this sample was consistent with the existing evidence on the correlation between social orientation and excessive social media use for extraverts.

Conscientiousness was negatively correlated with social media addiction, which lent support to the third hypothesis, suggesting that conscientiousness protects against social media addiction. Highly conscientious people are more

organized, disciplined, and oriented towards goals, which seems to decrease the risk of the impulsive and compulsive use of social media platforms. This result aligns with the results of the meta-analysis, which showed that Conscientiousness is consistently negatively correlated with problematic social media use, perhaps due to the fact that people with low levels of self-regulation have a tendency to engage in problematic online behaviors (Meynadier et al., 2024). This means that interventions that improve self-control, time management, and meaningful media use may be more effective for those with lower Conscientiousness and could help decrease the chances of addiction.

The findings of the variables Agreeableness and Openness to Experience were inconsistent with some previous studies, but similar to small or inconsistent effects reported in large meta-analytic studies (Meynadier et al., 2024). Agreeableness is an indicator of cooperativeness and empathy, which could enhance more prosocial interaction online, but not necessarily contribute to compulsive use. Likewise, Openness can help promote the exploration of various online materials without necessarily being directly related to addictive patterns. It is suggested that emotional reactivity, sociability, and self-discipline, not curiosity or empathy, are important factors in the development of social media addiction.

The findings from gender descriptive analysis were similar to previous cross-national studies that found gender differences in addictive social media behaviors, with females scoring higher than males. Such differences might be due to gender-specific motives for using digital platforms, such as social validation, relational engagement, or fear of missing out, that may lead to more time on digital platforms for women. Demographic factors could be examined in further studies to explore the interaction of gender and personality factors in online behaviors.

In conclusion, the results of this study reveal the significance of personality in predicting Social Media Addiction among young adults. The results indicated that Neuroticism and

Extraversion were risk factors while Conscientiousness was a protective factor, consistent with the more general findings of recent integrative studies. The results have implications for mental health practitioners, teachers, and mental health policy makers. Based on personality profiles, interventions focused on emotional regulation, self-control, and healthy use of social media could be personalized (Meynadier et al., 2024). For example, emotional regulation training may be particularly beneficial for high scores on Neuroticism, and self-regulation and time management training may be beneficial for low scores on Conscientiousness.

5.1 Conclusion

This study was a quantitative survey research to determine the relationship between the Big Five Personality Traits and social media addiction among young adults. The results showed that emotionally sensitive individuals and socially active individuals were more likely to exhibit online addictive behaviors, meaning there was a positive correlation between Neuroticism and Extraversion with social media addiction. However, self-discipline, organization, and goal setting proved to be a protective factor, as self-control, organization, and goal setting reduce the risk of excessive social media use. The results showed that emotional stability and Openness to Experience were not predictive of this sample, suggesting that emotional stability, sociability, and self-regulation were more relevant in explaining vulnerability to social media addiction. This study also makes a contribution to the literature by providing empirical findings on the relationships between personality traits and social media addiction in an up-to-date sample of young adults. The findings from this research may influence the direction of preventive actions and offer opportunities for future research on the intricate relationship between personality, demographic characteristics, and online behaviors. Further research might examine the progression of addictive behaviors, cultural effects on addiction, and the effects of each social media platform.

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