



## MACHIAVELLIANISM, NARCISSISM, PSYCHOPATHY AND SADISM AS PREDICTORS OF SOCIAL MEDIA ADDICTION AMONG UNIVERSITY STUDENTS

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### ***Abstract***

*A huge adoption of social media platforms into our lives has raised the red lantern over the topic of social media dependency, especially among young adults. This research explored the extent to which dark personality traits namely Machiavellianism, Narcissism, Psychopathy, Sadism predict the occurrence of social media addiction among university students as well as the relationship between study variables. A quantitative, cross-sectional correlational study design was used in present research where 350 male and female undergraduate and postgraduate students (aged 18-26 years) were recruited using convenience sampling. Short Dark Tetrad (SD4) scale with 28 items created by Paulhus et al. (2020) and Bergen Social Media Addiction Scale (BSMAS) with 6 items by Andreassen et al. (2016) were to be filled by respondents. The data was analyzed by SPSS and the Pearson product-moment correlation and the linear regression analysis were employed. The findings were delighted that all four aversive traits (machiavellianism, narcissism, psychopathy and sadism) were found to have a considerable and affirmative connection to social media addiction. Moreover, Machiavellianism proved as the best predictor of social media addiction and the next predictor was sadism and psychopathy whereas the least predictor was narcissism. These findings indicated that aversive personality traits are important dispositional vulnerability constructs to addictive social media use.*

***Keywords:*** *Machiavellianism, Narcissism, Psychopathy, Sadism and Social Media Addiction*

### **Introduction**

The radical change in the general pattern of communication occasioned by the Intensive growth of the digital technology and the social media sites has affected socialization and development of identity among the people in particular the age group of young adults.



Nevertheless, regardless of all the mentioned benefits, the empirical studies have always suggested that uncontrolled usage of the social media is associated with poor mental health, emotional distress, poor grades, and even dysfunctional relationships in the real life (Kuss & Griffiths, 2017; Orben & Przybylski, 2019).

Personality dispositions play very crucial role in the definition of online behavior with influences of sociocultural and motivational forces. Machiavellianism, Narcissism, Psychopathy and Sadism; these Dark Tetrads are characterized by being callous, manipulative, impulsive and low empathy (Paulhus et al., 2021). These features have been linked with poor Internet behavior, such as cyber aggression, trolling, excessive self-promotion, and obsessive social media use (Servidio et al., 2021). Such relations did not well explored in other non-Western societies such as Pakistan even though the evidence is growing at the international platform. Thereby to get a clearer picture on the way such dark personality traits contribute in social media addiction, the proposed research seeks to evaluate how machiavellianism, narcissisms, psychopathy and sadism contribute in social media addiction among university students in order to better learn how such traits are indicative of social media addiction.

Data from empirical evidences revealed that about 60 percent of university students spend a substantial amount of time on the social sites. Specifically, 39 percent of the respondents have been spending 4 to 6 hours a day and 33 percent have been spending 1 to 3 hours on social media. It was also due to the fact that the students are dedicating most of the time on social media sites throughout their academic as well as non-academic lives. The large portion of this time is spent on chatting, and Snapchat and Instagram have become the most popular social networks, followed by Facebook (Alhajjaj et al., 2025).

### **1.1 Dark Tetrad**

The Dark Tetrad refers to four personality characteristics considered that are generally socially aversive and dark. Despite their peculiarities, the main similarity between these traits is their callousness, manipulation, low empathy, and interpersonal exploitation (Paulhus, 2014). They are Machiavellianism (manipulativeness, strategic cunning, cynical world view), Narcissism (egotism, self centeredness, entitlement), Psychopathy (remorselessness, diminished empathy, deceptiveness) and as of recently, Sadism (enjoyment of other suffering, dominance, hostility) (Johnson et al., 2019; Paulhus et al., 2021).

#### **1.1.1 Machiavellianism**

Rauthmann and Will (2011) coined an elaborate theoretical definition of Machiavellianism that is shown in what one wants, thinks and feels as well as behaves. The Machiavellianism thinking can be broken down into negative world views (e.g. suspiciousness, instrumentalism), particular and egocentrism strategies. Machiavellianism is associated with high entitlement, trust and emotional deprivation disagreeableness, cynicism, and lying (Blotner & Bergold, 2022); poor psychological and physical health (Jonason et al., 2015); high problematic gaming on the internet, gambling, and cyberbullying; high workplace bullies (Linton & Power, 2013); cold and aloof (Rauthmann, 2011).

#### **1.1.2 Narcissism**

Narcissism is a character feature, which is signified by overbearing affection to self, excellence, and unquenchable need to be liked and adored by others. Narcissist people are known to showcase their supremacy and self-importance. However, despite their grandiose performances,



these individuals are usually serious about their performance and the favourable impression of others (Jones & Paulhus 2014). Narcissism has two subtypes namely the Grandiose and the Vulnerable. The grandiose narcissism includes grandiosity, domination, aggression, exploitation, and highly admired (American Psychiatric Association, 2022; Chan & Cheung, 2022). Quite the contrary, vulnerable narcissism type also involves insecure grandiosity, negative effect, shame, stress, and sensitivity to criticism (American Psychiatric Association, 2022; Cheng et al., 2013).

### **1.1.3 Psychopathy**

Psychopathy refers to a personality characteristic that is characterized by the absence of empathy, absence of emotion, poor impulse control, control of other individuals, parasitic and antisocial traits of character (Paulhus & Williams, 2002). It is also commonly related to callousness (Bader et al., 2021), unstable lifestyle, risks and impulsiveness, poor mental and physiological outcomes (Jonason et al., 2015), detachment among other people, vindictiveness (Bader et al., 2021), manipulation (Ok et al., 2020), and less concern regarding responsibility or fairness (Dinkins & Jones, 2021). In samples in communities and students, higher levels of Psychopathy are counter-intuitive, such as that they can be likable by blending in with other individuals to the point of the so-called mask of sanity (O'Toole et al., 2012), and are equally likely to cause interpersonal dysfunction (Fix & Fix, 2015).

### **1.1.4 Sadism**

In its broadest sense, sadism is a tendency to gain pleasure when other individuals are hurt physically or psychologically, and desire to control others harboring an intention to hurt them in a bid to experience power. They are more dictatorial and destructive in interpersonal relation. As a result, sadistic people are having problems with personal relationships and social norms (Buckels et al., 2013; Paulhus, 2014; Plouffe et al., 2021). Moreover, according to recent research, there are two sub types of sadism direct (physical or verbal violence) and vicarious (pleasure in another person suffering but not directly by violent means such as violent media) as well as forms of insensitivity towards the suffering of other people and vicarious objectification of victims (Plouffe et al. 2017).

## **1.2 Social Media Addiction**

Social media addiction is perceived as the over interest in social media because of the urge to check in social media sites and consuming excessive time and effort on them that these platforms become source of user's social activity dysfunction, study, work, relationship and health problems (Andreassen, 2015). It is a specific form of internet dependency, intensive or pathological use of social networks that is accompanied by the symptoms of the addiction and lack of self control and self regulation (Sun & Zhang, 2021).

Physical interaction of human beings is not viewed similarly as it used to be. People now would rather spend time on social media sites and also would want to know what is going on in the sites. Currently, the social media usage time is 2 hours and 24 minutes per day among people aged 16-64. It would mean that an average person spends 144 minutes which would translate to 72 hours a month on the social media daily. There are approximately 210 million individuals in the world who are socially addicted to the various types of social media, which makes 4.69 percent of the total number of users (Woodward, 2024). Previous researches on digital addiction indicated that excessive engagement with online behaviors is associated with adverse psychological consequences. A study conducted by Kamran et al. (2025) revealed positive correlation between



gaming addiction and aggression highlighting the psychological danger of digital addictive behaviors. Thus these results suggest that similar mechanism might work in social media addiction where those addicted to social media have a strong need to remain connected which results in poor social relations and low satisfaction with life (Cohen, 2024), insomnia, jealousy, and anxiety (Sun & Zhang, 2021), decreased productivity, job stress, and disagreement with those related to them (Cao et al., 2020). Even though social media is mostly linked to negative consequences, it also features positive consequences. For instance, social media could improve academic engagement and motivation, also offers an opportunity to learn and interact (Ramzan et al., 2023). It indicates a necessity of socially responsible social media practices and healthy digital lifestyles.

### **1.3 Machiavellianism, Narcissism, Psychopathy, Sadism and Social Media Addiction**

Unregulated social media use has been linked to both negative and bad behavioral and psychological effects, which have been interceded by the personality factor, emotional needs, and coping styles (Kircaburun et al., 2019). People who are excessively active on social media platforms were found to contain less self-esteem and lower levels of life satisfaction (Kocek et al., 2021). The available literature suggested that machiavellianism, narcissism, psychopathy and sadism lead to the lack of adjustment, high risk-taking, and competitiveness (Furnham & Cuppello, 2024). As a result, social media may serve as a reinforcer for people with dark personality traits to build healthy offline interactions with others which is hard to build for them in real lives.

### **1.4 Theoretical Model**

The present study relies on the I-PACE Model (Interaction of Person-Affect-Cognition-Execution) proposed by Brand et al. (2016, 2019), as per which the compulsive use of the Internet is caused by a combination of personal features, emotional, and cognitive responses, as well as the disruption of executive control. Machiavellianism, narcissism, psychopathy, and sadism are the types of personality traits to which this vulnerability is fixed under the conditions of impulsiveness, reward sensitivity, need to be admired, manipulatory, low empathy, and poor self-control (Buckels et al., 2013; Paulhus et al., 2021). Therefore, the rich people in these traits will have a higher probability of using maladaptive coping strategies and uncontrollable consumption of social media (Kircaburun et al., 2018). The stress and negative mood can also strengthen the motivation to use the social media excessively (Brand et al., 2016), although other reasons like self-presentation, manipulation, impulsive seeking of rewards, and online aggression are also associated with the maintenance of problematic and addictive social media consumption (Buckels et al., 2014; Kircaburun et al., 2018).

### **1.5 Rationale**

An issue of social media addiction has been increasing amongst the university students and is usually related to personality and emotional underlinings. The past studies has emphasized on social media addiction in context to general personality traits, aggression, stress and social anxiety (Javaid et al., 2024; Fabris et al., 2020; Stanculescu & Griffiths, 2022). In their turn, the role of socially aversive personality factors, in particular, machiavellianism, narcissism, psychopathy and sadism are not deeply explored, yet these factors are correlated with impulsivity, attention seeking and exploitive interpersonal behaviors (Paulhus et al., 2021). Moreover, most of the empirical data can be described as individualistic in nature and hence they constitute a very significant gap in understanding these relationships in the collectivist society such as Pakistan. To address this gap,

the proposed research paper will examine the effect of machiavellianism, narcissism, psychopathy, sadism on social media addiction among Pakistani university students.

### 1.6 Objectives

- To examine how Machiavellianism is a predictor of social media addiction among university Students.
- To investigate how Narcissism predicts social media addiction among university Students.
- To examine the predictive value of Psychopathy in social media addiction among university students.
- To investigate whether Sadism can be a predictor of social media addiction among university Students.

### 1.7 Conceptual Model

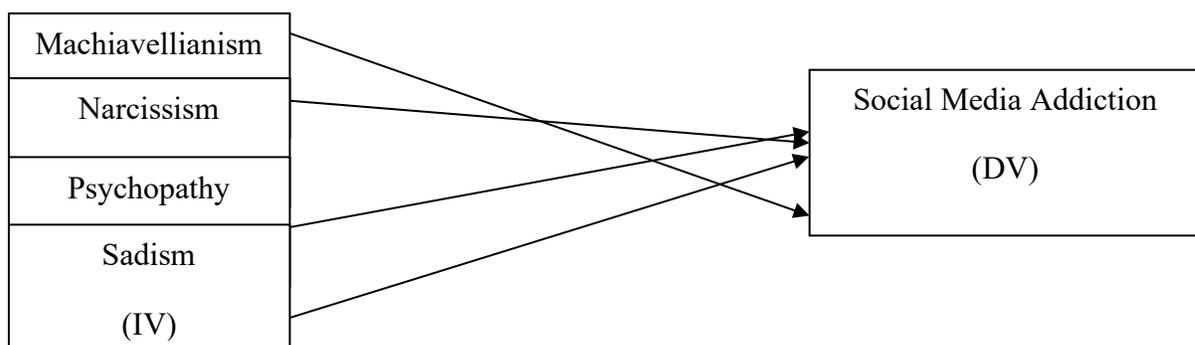


Figure 1: Conceptual Model

## Literature Review and Hypothesis Development

### 2.1 Machiavellianism and Social Media Addiction

During past several years, there is an increasing popularity of the association between aversive personality traits and social media addiction particularly in context to university students. Dark tetrad that incorporate machiavellianism, narcissism, psychopathy, and sadism have been identified to be the important predictors of problematic social media usage because of the fact that such personality traits are linked with impulsivity, manipulateness, goal directed reward behavior and low self-control (Chung et al., 2019; Cohen & Ozsoy, 2025). Meta-analytic evidence also supports this, indicating that Machiavellianism is positive correlated with addiction to social media in diverse groups of people (Kaya, 2024; Hussain et al., 2023). Cohen and Ozsoy (2025) also indicated that Machiavellianism and sadism were also positively related with addiction, and situational factors such as boredom also had greater influence on addictive use, and that there was an interaction between personality and situational factors. The impact of Machiavellianism is also examined by the analysis of specific platforms. Nikbin et al. (2022) found that the effect of machiavellianism was among the strongest predictors of Instagram addiction, and their effects were mediated by social motives (conformity and social comparison). These outcomes indicate that the motivation determinants that are associated with Machiavellianism including goal focused manipulation and impression management tendencies are probable to augment the risk of platform sensitive addictive behavior. As the findings of a research by Tang et al. (2022) suggest,



Machiavellianism and social media addiction may directly correlate with each other specifics of the situation, which leads to the conclusion that motives and environmental factors mediate the relationship. Similarly, Habibah (2024) has also found that Machiavellianism was a noteworthy predictor of problematic social media usage among late adolescents and young adults that renders the trait applicable to student population.

*H1: Machiavellianism would be a major predictor of Social Media Addiction among university students.*

## **2.2 Narcissism and Social Media Addiction**

Several empirical research reports indicated that narcissism and uncontrolled social media use are positively linked to each other. Indicatively, Andreassen et al. (2017) found that addictive use of social media was largely predicted by narcissistic personality trait. The authors hypothesized that the main motive of such individuals using social media is to control self esteem and receive admiration of others as it creates addictive and habitual patterns of use. Kircaburun et al. (2019) conducted a research study in the cohort of young adults and found narcissism as major predictor of social media addiction and problematic smartphone use. They reported that the narcissistic traits were considered to be the susceptible vulnerability factors which acts as enhancements of the reward sensitivity and reduces self-control in the Internet environments. This contributes to the fact that people are more prone to overuse of social media applications. Besides, Wang et al. (2025) confirmed that aversive personality traits including machiavellianism, narcissism and psychopathy, are also correlated with some symptoms of social media addiction, and narcissism proved to be the most central and the most dominant character of the network. It was further noted that narcissism was also a predictor of a higher level of addiction among undergraduates, and avoidance coping mediated the relationship between the two variables which implies that Narcissism has also been systematically linked with addictive social media usage, particularly via coping strategies (Siah et al., 2021). These outcomes justify the distinctive roles of every dark personality characteristic and provide a justification of the particular importance of narcissism in the development of addictive behaviors.

*H2: Narcissism would predict social media addiction among university students.*

## **2.3 Psychopathy and Social Media Addiction**

The empirical research results are consistent and show that psychopathy is positively associated with social media addiction among young adults. According to Necula (2020), the dark personality traits affect the problematic usage of social media on their own. Chung et al. (2019) have found that psychopathy was a significant indicator of social media addiction even when considering the time devoted to these sites in addition to other personality traits. Similarly, Lee (2019) discovered that the distinct variation in social networking site addiction might be described by psychopathy as opposed to the Big Five personality characteristics, which implied that there exists some connection between psychopathy and compulsive social media use. Moreover, Demircioğlu and GoncuKose (2018) demonstrated that psychopathy had a positive impact on social media addiction within a structural equation. In addition to the psychopathy, other dark personality traits also proved to have a correlation with addictive social media behaviors (Muhammad & Ashiq, 2024; Varma et al., 2024).

*H3: Psychopathy would play an important role in predicting social media addiction among university students.*



## 2.4 Sadism and Social Media Addiction

Across studies that examine problematic use of social media, one of them postulates that the effects of sadism are mediated by antisocial online activities. Research on 761 respondents discovered that problematic use of social media was indirectly linked with sadism via the mediating impact of cyberbullying and cyber-stalking in such a manner that respondents with high sadism scores might be inclined to engage in more aggressive interactions online, which, under the impact of its reinforcing influence, causes them to use social media more and more frequently, with maladaptive consequences (Kircaburun et al., 2018). Other studies in the same field connected to online behavior also play a direct or indirect role in the postulation that sadistic personalities have been linked with online behavior patterns that generally intersect with signs of addiction. As an example, sadism is linked to online trolling and antisocial behavior, both of which are high-stakes and perseverance patterns of behavior which are conceptually similar to addictive usage (Buckels et al., 2014).

*H4: Sadism would play an important role in predicting social media addiction among university students.*

### Method

#### 3.1 Research design

The quantitative, cross-sectional correlational research design was used in this study to determine the effects of Machiavellianism, Narcissism, Psychopathy and Sadism on Social Media Addiction among University students.

#### 3.2 Participants

This study used convenient sampling method to recruit participants who are members of the different departments of University. The sample consisted of 350 students consisting of both male and female aged between 18 and 26 years and having varieties of backgrounds in terms of nuclear and joint family systems, rural and urban residential areas, and socioeconomic status are currently pursuing undergraduate and post graduate programs at the University.

##### 3.2.1 Inclusion Criteria

The sample was the population consisting of the students of the University (studying either Undergraduate or Postgraduate Programs) aged 18 to 26 of both sexes (male and female).

##### 3.2.2 Exclusion Criteria

Those with self-reported psychological disorders and those who gave incomplete or inconsistent responses were removed. Orphans and those with single parents were also excluded.

### 3.3 Instruments

#### 3.3.1 Background Information

The background data sheet included the necessary data of the participant which are the age, gender, level of education (Undergraduate/Post graduate), type of family structure (nuclear or joint), residential area (urban or rural), social economic status and average time spent daily on social media.

#### 3.3.2 Short Dark Tetrad Scale

Machiavellianism, Narcissism, Psychopathy and Sadism were measured using Short Dark Tetrad (SD4) scale developed by Paulhus et al. (2020), having 28 items. Each trait has 7 items. The SD4 demonstrates a good level of internal consistency ( $\alpha = .73$  to  $.80$ ) and evident factor



structure so it is a useful and reliable tool to be employed to measure dark personality traits both in research and practical aspects.

### **3.3.3. Social Media Addiction Scale**

Social media addiction was assessed using the Bergen Social Media Addiction Scale (BSMAS) by Andreassen et al. (2016), which contained 6 items scale. The ratings are conducted in the 5-point Likert system (1 = Very rarely to 5 = Very often). Total scores may vary between 6 and 30 and the higher the score, the more severe the addiction symptoms. The scale has depicted a high level of reliability ( $\alpha = 0.86$ ).

### **3.3 Statistical analysis**

The data was analyzed through the statistical software, IBM Statistical Package for Social Sciences (SPSS-24) specifically. The SPSS was used to compute the descriptive statistics like mean and standard deviation of the study variables. Strategies used to measure the association between machiavellianism, narcissism, psychopathy, sadism and Social Media Addiction in University students were Pearson product-moment correlation analysis. Also, SPSS-24 was used to perform regression analysis to project the relationship between different variables.

### **3.5 Ethical Considerations**

This research study was conducted within the legal framework of the ethical principles in order to protect and advance the interests of all the participants. The participants gave their prior consent to the collection of data. Consent form was very explicit in terms of explaining nature, purpose and objectives of study and further noting that the involvement in study is entirely voluntary and the respondents were also free to pull out of study at any time without any penalty. This study adhered to anonymity and confidentiality, none of the personal identifiable data was obtained and responses were coded and stored in secure manner. The data was of academic nature and accessible only to the main researcher.

### **3.6 Procedure**

Participants aged 18 to 26 were selected by convenience sampling from university settings after getting departmental permission of University. This was done with informed consent, and participation was done freely without any coercion and on a confidential basis. Standardized self-report questionnaires such as Short Dark Tetrad (SD4) scale and Bergen Social Media Addiction Scale (BSMAS) were used for data collection. Respondents were requested to fill in the questionnaires either physically or through the internet and it took about 15-20 minutes. A short debriefing was given on completion. Analysis of the collected data was done using SPSS-24 to perform descriptive statistics, correlation analysis and regression analysis.

### **Results**

The chapter is founded on the results of data analysis performed by the means of using SPSS. Pearson product-moment correlation analysis was employed to evaluate the findings of study variables as well as the regression analysis to establish the predictive power of machiavellianism, narcissism, psychopathy, sadism on social media addiction.

**Table 3.1***Frequency/Demographic Characteristics of Study Variables N=350*

Variable	Frequency	M	S.D
<b>Age</b>		1.44	.50
18-22	196(56%)		
23-26	154(44%)		
<b>Gender</b>		1.49	.501
Male	178(50.9%)		
Female	172(49.1%)		
<b>Education</b>		1.52	.500
Undergraduates	182(52%)		
Postgraduates	168(48%)		
<b>Residence</b>		1.28	.451
Urban	251(71.7%)		
Rural	99(28.3%)		
<b>Family System</b>		1.34	.473
Nuclear	232(66.3%)		
Joint	118(33.7%)		
<b>Monthly Income</b>		1.81	1.007
50,000-1 Lac	184(52.6%)		
1 Lac-1.5 Lac	80(22.9%)		
1.5 Lac-3 Lac	54(15.4%)		
More Than 3 Lac	32(9.1%)		
<b>Daily hours spent on social media</b>		2.50	1.127
Up to 2 hours			
2 to 4 hours	91(26%)		
4 to 6 hours	80(22.9%)		
More than 6 hours	92(26.3%)		
	87(24.9%)		

*Note: M= Mean and S.D= Standard Deviation*

The demographic attributes of the sample (N=350) are shown in above table. The participants' mean age was 1.44(SD=0.50) and most of the participants fell within the range of 18 to 22 years (56%). The gender proportion was near to equal (M = 1.49, SD =0.50) with 50.9 percent male and 49.1 percent female. Mean of education was 1.52 (SD = 0.50) with a slight skew towards undergraduates (52%). Most of the participants were in urban areas (71.7%), and the standard residence was 1.28 (SD = 0.45). Majority of them were living in nuclear families (66.3%, M = 1.34, SD = 0.47). The average expenditure was 1.81 (SD = 1.01) and most of the income of the respondent is between 50,000 to 1 lac (52.6%). Finally, concerning the amount of social media used every day the mean value was 2.50 (SD=1.127) and the highest percentage of those sampled spent 46 hours (26.3) then over 6 hours (24.9), 2 to 4 hours (22.9) and 2 hours (26).



**Table 3.2**

*Correlation between Machiavellianism, Narcissism, Psychopathy, Sadism and Social Media Addiction Scale*

	MV	NR	PSY	SD	SMA	M	S.D
MV	1	-	-	-	-	23.80	4.258
NR	.316**	1	-	-	-	22.32	5.052
PSY	.223**	.413**	1	-	-	19.65	4.965
SD	.226**	.312**	.480**	1	-	18.44	5.766
SMA	.228**	.106*	.175**	.178**	1	16.64	4.772

Note: \* $p < 0.05$ , \*\* $p < 0.001$

MV= Machiavellianism, NR= Narcissism, PSY= Psychopathy, SD= Sadism, SMA= Social Media Addiction, M= Mean and S.D= Standard Deviation

This table revealed positive, significant correlation between all study variables. The positive correlation was found between social media addiction and Machiavellianism ( $r = .228$ ,  $p < .01$ ), narcissism ( $r = .106$ ,  $p < .05$ ) and psychopathy ( $r = .175$ ,  $p < .01$ ) while sadism ( $r = .178$ ,  $p < .01$ ) was also significantly correlated, meaning that all dark personality traits are positively correlated with the higher level of social media addiction. Besides, descriptive statistics indicate that the highest mean score ( $M = 23.80$ ,  $SD = 4.26$ ) was gained by Machiavellianism, then by narcissism ( $M = 22.32$ ,  $SD = 5.05$ ), psychopathy ( $M = 19.65$ ,  $SD = 4.97$ ), sadism ( $M = 18.44$ ,  $SD = 5.77$ ), and social media addiction ( $M = 16.64$ ,  $SD = 4.77$ ).

**Table 3.3**

*Machiavellianism as a Predictor of Social Media Addiction*

Variables	B	SE	B	t	P
Constant	10.557	1.414	7.465		.000
Machiavellianism	.255	.058	.228	4.368	.000
R square	.052***				

Note: \*\*\* $p < 0.001$ , B= Unstandardized Regression Coefficient, SE= Standard Error, B (Beta)= Standardized Regression Coefficient,  $p$  = Significance

Results of simple linear regression analysis revealed Machiavellianism being a meaningful positive predictor of social media addiction ( $\beta = .228$ ,  $t = 4.37$ ,  $p < .001$ ). The Machiavellianism explained 5.2% of the variance in social media addiction ( $R^2 = .052$ ,  $p < .001$ ), which suggested that higher Machiavellianism would increase the chances that person would be more social media addict.

**Table 3.4**

*Narcissism as a Predictor of Social Media Addiction*

Variables	B	SE	B	t	P
Constant	14.406	1.152	12.504		.000
Narcissism	.100	.050	.106	1.985	.048
R square	.011*				



Note: \*  $p < 0.05$ , B= Unstandardized Regression Coefficient, SE = Standard Error, B (Beta)= Standardized Regression Coefficient, p = Significance

Results of simple linear regression suggested narcissism as significant positive predictor of social media addiction ( $\beta = .106$ ,  $t=1.99$ ,  $p=.048$ ). Narcissism explained 1.1 percent of the variance of social media addiction ( $R^2 = .011$ ,  $p < .05$ ), it means that high scores of narcissism are related to high scores of social media addiction.

**Table 3.5**

*Psychopathy as a Predictor of Social Media Addiction*

Variables	B	SE	B	t	P
Constant	13.326	1.028	12.965		.000
Psychopathy	.169	.051	.175	3.323	.001
R square	.031***				

Note: \*\*\*  $p < 0.001$ , B= Unstandardized Regression Coefficient, SE= Standard Error, B (Beta) = Standardized Regression Coefficient, p = Significance

Above table shows the results of a simple linear regression analysis conducted to test psychopathy as a factor predicting social media addiction in university students ( $N = 350$ ). The statistical significance of this model was found, and psychopathy turned out as strong positive predictor of social media addiction ( $\beta = .175$ ,  $t = 3.32$ ,  $p = .001$ ). The proportion of psychopathy to the variance in social media addiction was 3.1 ( $R^2 = .031$ ,  $p < .01$ ), which shows the higher the psychopathy the higher the social media addiction.

**Table 3.6**

*Sadism as a Predictor of Social Media Addiction*

Variables	B	SE	B	t	P
Constant	13.923	.843	16.510		.000
Sadism	.147	.044	.178	3.371	.001
R square	.032***				

Note: \*\*\*  $p < 0.001$ , B= Unstandardized Regression Coefficient, SE= Standard Error, B (Beta)= Standardized Regression Coefficient, p = Significance

Above table indicates the findings of a simple linear regression analysis involving the investigation of sadism as a predictor of social media addiction. It has proven to be statistically significant as sadism became an important positive predictor of social media addiction ( $\beta = .178$ ,  $t = 3.37$ ,  $p = .001$ ). Sadism explained 3.2% of the difference in social media addiction ( $R^2 = .032$ ,  $p = .01$ ), which means that the higher the level of sadism, the higher is the level of social media addiction.

## Discussion

The present research aimed at examining Machiavellianism, narcissism, psychopathy and sadism as predictors of social media addiction among university students. Consequently, in accordance with the hypothesized characteristics, all four traits have been identified to be significant positive predictors which inform that socially aversive personality characteristics are essential psychological risk factors to be added in social media addiction.

Machiavellianism turned out as the most precise predictor of social media addiction among the other three characteristics. This observation aligns with the available evidence which defined Machiavellian individuals to utilize the social media in a strategic manner, which allowed them to



control, manage impressions, and pursue instrumental objectives (Nikbin et al., 2022; Tang et al., 2022; Habibah, 2024). The recent meta-analytic data also reveals that Machiavellianism is highly correlated with the social media addiction regardless of the culture in question (Kaya, 2024). ). Moreover, Cohen & Ozsoy (2025) found that Machiavellian disposition is mutually determined by situational ones in the step-up of compulsive consumption of social media. The existing results substantiate the initial hypothesis by confirming the evidences that Machiavellianism is a consistent gauge weakness to the addiction of social media among the young adult demographic.

The second hypothesis was also confirmed because another crucial predictor of social media addiction was narcissism but the strength of the effect was not as high. The results align with the existing studies, and they show that narcissistic people resort to social media to perform self-presentation, admiration seeking and regulation of self-esteem (Andreassen et al., 2017; Wang et al., 2025; Kircaburun et al., 2019; Siah et al., 2021). The relative small effect that is present in the present study suggests that narcissism may play a larger role in symptom-level patterns of engagement than the level of addiction.

Psychopathy was another significant predictor of social media addiction, which validates the previous findings that impulsiveness, sensitivity to rewards, and the inability to control themselves, predict online problematic behaviors (Chung et al., 2019; Lee, 2019; Demircioglu & GoncuKose, 2018). Recent discoveries additionally propose that psychopathic high individuals are prone to indulging in dangerous digital behavior, excessive internet consumption, and incapacitated to provide inhibitory control, which contribute towards the development of addictive use practices (Muhammad & Ashiq, 2024; Varma et al., 2024). The existing findings confirm the third hypothesis that psychopathy is among the causes of social media addiction that enhances the urge to obtain a reward and diminishes the concentration on the consequences in the future.

It is worth noting that as hypothesized, sadism was also mentioned as a crucial contributor in social media addiction. According to the available literature, sadism has an indirect relationship with uncontrolled and problematic social media usage, taking the form of cyberbullying, cyberstalking and other online violence (Kircaburun et al., 2018). According to the recent research, individuals with a high level of sadism feel attracted to highly provocative and conflict-driven online environments, which may reinforce the long-term and compulsive use of platforms (Cohen & Ozsoy, 2025). The existing results are an addition to this body of literature because they demonstrate that sadism is not only a cause of antisocial activities on the Internet but also other more generalized patterns of addictive use.

The correlational results also support the regression results which showed that machiavellianism, narcissism, psychopathy and sadism had a positive correlation with social media addiction means that people high on these personality traits are more prone to become social media addicts. These findings are consistent with the earlier research which hypothesized that these traits are defined by a shared group of traits of callousness, low-self-regulation, and exploitative interpersonal orientation, which predisposes people to maladaptive digital practices (Necula, 2020; Hussain et al., 2021; Hussain et al., 2023). Theoretically, the findings are also aligned to the I-PACE model by Brand et al. (2016) that emphasizes the interaction between predisposing personality factors and affective-cognitive response in the development of addictive online behaviors. As a rule, Machiavellianism was the most predictive factor of social media addiction followed by sadism, psychopathy and finally, narcissism had the least significant



influence on social media addiction. This trend suggests that exploitative, manipulative, and antisocial motives may be more prominent in addictive social media use than a mere self-enhancing motive. As it is indicated in these findings, social media addiction is not necessarily driven by emotional need, or by entertainment factors, but rather by certain more sinister motives related to control, manipulation, and antagonism. Taken together, the results are a good case in point to argue the idea that dark personality factors are important vulnerability factors in the process of social media addictions.

### **Conclusion**

The present study explored how dark tetrad affect social media addiction among university students. The findings showed that, all the four traits; machiavellianism, narcissism, psychopathy, and sadism are significant positive predictors of social media addiction with Machiavellianism having the strongest predictive power, followed by sadism and psychopathy, and the least contributing one was narcissism. Such results indicate that situational variables do not always motivate social media addiction but that dark personality characteristics play crucial role in predicting social media addiction. Overall, the results indicate that the problem of addictive social media consumption among university students should be treated as significant in terms of personality-related susceptibilities.

### **Limitations**

1. The research adopted convenience sampling technique in this study and the data was obtained from one institute which could have introduced a sampling bias and limited the applicability of the results.
2. Possible biases in response might also have been occasioned by reliance on self-report measures particularly in measurement of socially undesirable traits.
3. The absence of a profound analysis on the cultural and environmental issues also limits the extent of interpreting the results within the larger context.

### **Practical Implications**

1. The results of this research can help the university administration, student welfare and psychologists to have a better idea on the role of aversive and high risk personality traits in social media use by students and to come up with effective strategies to encourage students to have healthy online lifestyles as in digital wellbeing programs, workshops and awareness campaigns.

### **Recommendations**

1. Future researches ought to explore the use of longitudinal designs with the probability based sampling and sample expansion across different universities and region to increase the representativeness, reliability and generalizability of the findings.
2. Additionally, other psychological variables like fear of missing out, loneliness, emotional control or stress must be included in the subsequent studies for deeper understanding of addictive social media behavior.

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