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Research Article

Dark Triad Traits and Financial Well-Being: The Mediating Role of Money Management and Socioeconomic Status

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Abstract

This study tested the mediating effects of financial management and perceived socioeconomic status on the relationship between Dark Triad traits and financial well-being. A sample of 1,550 participants (62.1% women; age 17–86, *M* = 40.7, *SD* = 13.87) completed an online questionnaire assessing Dark Triad traits, financial management, financial well-being, and perceived socioeconomic status. Spearman correlations and mediation analyses with bootstrapping (5000 iterations) were applied. Machiavellianism and narcissism were positively related to financial management, whereas psychopathy showed negative associations. Narcissism was further linked to higher perceived socioeconomic status, while psychopathy predicted lower status. Mediation analyses revealed that the positive association between narcissism and financial well-being operated through stronger financial management and elevated perceived socioeconomic status. In contrast, the detrimental effect of psychopathy on financial well-being was mediated by poor financial management and lower socioeconomic status. These results indicate that Machiavellian and narcissistic tendencies can foster adaptive financial management, yet only narcissism enhances subjective socioeconomic appraisal. Psychopathy, conversely, is characterized by maladaptive management strategies, diminished socioeconomic perceptions, and reduced financial well-being. The study emphasizes the pivotal role of both financial management and subjective socioeconomic evaluation in linking personality traits with financial well-being. Targeted interventions aimed at strengthening self-regulation and financial planning may buffer the adverse financial outcomes particularly associated with psychopathic traits.

Keywords: Dark Triad; financial well-being; money management; socioeconomic status; personality traits

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Money is an inseparable part of human life, serving multiple functions. Beyond being a medium of exchange for goods and services, which enables the fulfilment of basic human needs, money also holds significant psychological and social meaning. Research has indicated that money can influence human behavior by fostering self-focused goal pursuit, undermining social empathy, and reshaping moral values and societal norms (Zaleskiewicz et al., 2017). An individual's attitude toward money is traditionally described through three fundamental dimensions: affective, symbolic, and behavioral.

The affective dimension reflects the emotional relationship with money, ranging from positive emotions, such as pleasure and a sense of security, to negative emotions, such as anxiety, suspicion, and guilt. While some individuals perceive money as something good and valuable, others view it as a source of evil and dishonesty (Mitchell & Mickel, 1999; Pilch & Górnik-Durose, 2016).

The behavioral dimension manifests in specific financial decisions and tendencies, such as saving, investing, or spending money. On the other hand, it may also encompass risky

behaviors, including gambling or an obsession with wealth (Mitchell & Mickel, 1999; Pilch & Górnik-Durose, 2016).

In a psychological context, it is essential to consider not only the instrumental (economic) function of money but also its symbolic dimension, which relates to social status, power, and identity (Pilch & Górnik-Durose, 2016). The symbolic dimension represents money as a marker of success, power, status, and autonomy. In this regard, money can contribute to psychological well-being by enhancing a sense of control over one's life, facilitating the attainment of respect, and fostering social recognition. Moreover, this symbolic dimension highlights individual differences in attitudes toward money, which are closely linked to personality traits (Fenton-O'Creevy & Furnham, 2020). Personality traits influence not only how people perceive money but also their specific financial behaviors. Research has suggested that key variables affecting an individual's relationship with money include impulsivity and locus of control (Kidwell et al., 2003).

One of the personality frameworks that has gained prominence in psychological research over the past few decades is the Dark Triad (Paulhus & Williams, 2002). It encompasses three socially aversive traits – Machiavellianism, narcissism, and psychopathy – each of which influences attitudes toward money in distinct ways. Although Jonason et al. (2016) suggest that Dark Triad traits have a partial genetic basis, their development is also likely shaped by economic conditions during childhood. Research has indicated that Machiavellian and narcissistic tendencies are more commonly found in individuals who grew up in economically favorable environments, whereas psychopathic traits are more strongly associated with childhoods marked by financial instability and material insecurity.

Machiavellianism is characterized by a high degree of manipulativeness, strategic thinking, and emotional detachment. Individuals high in Machiavellianism primarily perceive money as a tool for power and control. They exhibit a strong materialistic orientation, systematically accumulate wealth, and pursue long-term financial gain (Sekścińska & Rudzinska-Wojciechowska, 2020). Their attitude toward money can be described as a "love of money" (Maggalatta & Adhariani, 2020), and their strategic and pragmatic reasoning often motivates them to engage in unethical financial behavior (Jones, 2014).

Narcissism is associated with excessive self-confidence, a strong desire for admiration, and a sense of superiority (Morf & Rhodewalt, 2001). For individuals with higher levels of narcissistic traits, money may serve as a symbol of prestige, self-presentation, and self-enhancement. The

possession of wealth may provide a sense of security and help alleviate anxiety related to ego threats. Due to a heightened need for external validation of self-worth, these individuals may be more prone to impulsive and excessive spending, often on luxurious or non-essential products (Pilch & Górnik-Durose, 2016). Additionally, their sense of entitlement and inflated self-confidence may drive them toward unethical financial practices (Jones, 2014; Sekścińska & Rudzinska-Wojciechowska, 2020).

Psychopathy is characterized by impulsivity, emotional shallowness, and antisocial behavior (Mathieu et al., 2013). While individuals with higher levels of psychopathic traits may perceive money as a means to personal gain, their financial behavior tends to be more chaotic and risk-prone. Unlike individuals with higher levels of Machiavellian traits, who tend to take a systematic approach to finances, individuals with higher levels of psychopathic traits tend to spend more impulsively, show limited long-term financial planning, and appear to be more susceptible to gambling. (Boonroungrut et al., 2020; Sekścińska & Rudzinska-Wojciechowska, 2020).

In addition to personality traits, cognitive factors (e.g., perceived budgetary control, perceived financial barriers), employment-related factors (e.g., job status, career opportunities), and situational factors (e.g., parental support, normative influences) also play a significant role in financial behavior. An individual's attitude toward money, along with affective and cognitive aspects, serves as a key predictor of personal money management (Kidwell et al., 2003), which can function either as a protective mechanism against financial difficulties or, conversely, lead to risky and unethical financial behavior.

Money management and Dark Triad

Personal money management encompasses budgeting, saving, investing, and regulating spending (Godwin & Koonce, 1992). According to Ksendzova et al. (2017), individuals with effective money management are less prone to compulsive shopping, experience lower financial stress, report greater financial satisfaction, tend to save more, carry lower credit card debt, exhibit lower materialism, have stronger financial standing, demonstrate higher financial literacy, and are less likely to be in debt.

Several studies have also highlighted the relationship between personal money management and the Big Five personality traits (Donnelly et al., 2012; Chhatwani, 2021; Ksendzova et al., 2017). Neuroticism has been associated with heightened concerns about financial security and compulsive shopping, as well as a greater likelihood of accumulating debt. Similarly, extraversion has been linked to excessive spending and a tendency to borrow money in pursuit

of a desired financial status. In contrast, openness to experience appears to have an adaptive relationship with money management, as it is positively associated with investment tendencies and saving behaviors. Agreeableness has been found to correlate with a greater likelihood of seeking financial advice to achieve financial goals. Among the Big Five traits, conscientiousness exhibits the strongest positive association with personal money management, as it is linked to higher savings, a positive attitude toward frugality, lower levels of debt, reduced compulsive spending tendencies, greater financial control, and a lower likelihood of borrowing money.

Dark Triad traits have been examined in relation to personal money management, particularly in terms of risk-taking, investment behavior, and maladaptive financial decision-making. Individuals with higher levels of Machiavellian traits tend to engage in less risky financial behavior compared to individuals with higher levels of psychopathic traits, whose elevated impulsivity is associated with greater financial risk-taking, and individuals with higher levels of narcissistic traits, whose risk-taking appears to be linked to a sense of entitlement. (Sekścińska & Rudzinska-Wojciechowska, 2020). In contrast, individuals with higher levels of Machiavellian traits tend to adopt strategic investment planning aimed at long-term financial gain and demonstrate a greater tendency to save money (Boonroungrut et al., 2020). Individuals with higher levels of narcissistic traits, on the other hand, tend to exhibit more aggressive investment strategies, which may stem from lower avoidance motivation and higher goal-oriented motivation (Foster et al., 2009). They may also be more prone to betting and gambling, as elevated self-confidence can lead to an underestimation of financial risk (Zhao et al., 2016). Individuals with higher levels of psychopathic traits, in turn, tend to engage in higher-risk investments, excessive spending, and gambling, behaviors that may be associated with higher impulsivity (Sekścińska & Rudzinska-Wojciechowska, 2020). Suchanek (2021) analyzed the relationship between the Dark Triad traits and behavioral biases in investment decision-making, finding that all three traits have been negatively associated with a preference for domestic investments (home bias) and positively associated with overconfidence and herd mentality in financial decision-making.

Financial well-being and Dark Triad

Effective personal money management contributes to subjective financial well-being (Ksendzova et al., 2017; Shim et al., 2009). In psychological terms, this concept is understood as an attitude toward money or as a component of overall subjective well-being (Zyphur et al., 2015). While in economic terms, subjective financial well-being is often equated with material

prosperity, psychological definitions emphasize its subjective nature. It refers to an individual's perceived ability to maintain their current and expected financial standard of living and financial freedom. Experiencing a sufficient level of subjective financial well-being enables individuals to meet their current and ongoing financial obligations, feel secure about their financial future, and make financial decisions that allow them to enjoy life (Brüggen et al., 2017; Zyphur et al., 2015). Personality traits associated with subjective financial well-being include low levels of materialism (Garðarsdóttir & Dittmar, 2012), a tendency toward planning, susceptibility to interpersonal influence, self-efficacy, trust, and money-related life values such as spending, saving, and consumption habits (Brüggen et al., 2017). Additionally, high self-esteem, an internal locus of control, low neuroticism, high conscientiousness, and strong goal-oriented motivation have been identified as key predictors of subjective financial well-being (Zyphur et al., 2015).

Financial well-being is also closely linked to an individual's socioeconomic status (SES), which is primarily regarded as an objective indicator of one's position within the social hierarchy and is defined by economic and social resources. Objective measures of SES typically include educational attainment, annual income, and employment status (Hughes et al., 2021; Kraus & Park, 2014).

However, some studies have emphasized the role of subjectively perceived SES (Jonason et al., 2015; Sand et al., 2021) and its impact on self-esteem and other personality-related characteristics. When individuals fail to achieve their desired SES or struggle to meet their goals in education, income, employment, or health, their self-esteem may be negatively affected (Twenge & Campbell, 2002). Additionally, SES influences how individuals are perceived by others. If someone is socially regarded as having a low SES, they are more likely to internalize this perception, leading to a diminished sense of self-worth.

The association between personality traits and socioeconomic status (SES) has been highlighted in research by Hughes et al. (2021), who synthesized findings from multiple studies. Their analysis revealed positive correlations between SES and agreeableness, openness, and extraversion. However, they noted that most research attention has been directed toward the strong positive relationship between high SES and conscientiousness and the association between low SES and neuroticism (Hughes et al., 2021). On the other hand, individuals with higher SES tend to exhibit lower empathy, increased greed, inflated self-confidence, overestimation of their abilities, and a strong focus on personal goals. These findings highlight the importance of examining the relationship between SES and maladaptive personality traits,

as higher SES have been linked not only to advantageous traits but also to characteristics that foster self-serving and unethical behaviors. In the workplace, individuals with Dark Triad personality traits are often perceived as employing more assertive, and in some cases, aggressive behavioral strategies to advance their careers. This assertiveness is logically associated with higher financial income and, consequently, higher socioeconomic status (SES) (Luo et al., 2022). The primary motivation behind their pursuit of favorable economic conditions is their desire for power and status (Lee et al., 2013). Machiavellianism is particularly characterized by a strong drive for money, power, and status (Malesza, 2020). Narcissism has been linked to higher social standing (Aluja et al., 2022) and an intense focus on personal status and success (Malesza, 2020). In contrast, psychopathy tends to be associated with lower social status (Aluja et al., 2022). However, Jonason et al. (2015) found significant positive associations between Machiavellianism – and particularly narcissism – and higher perceived current SES, suggesting that individuals high in these traits may subjectively view themselves as having a higher social and economic standing, regardless of their actual SES.

Present study

Financial well-being is a key aspect of subjective well-being, shaped by personality traits, financial behavior, and perceived socioeconomic status (SES) (Ksendzova et al., 2017; Zyphur et al., 2015). This study proposes a mediation model where personal money management and perceived SES mediate the link between Dark Triad traits (Machiavellianism, narcissism, and psychopathy) and financial well-being.

Dark Triad traits influence financial behavior differently. Machiavellianism has been linked to strategic financial planning, fostering stability (Boonroungrut et al., 2020; Sekścińska & Rudzinska-Wojciechowska, 2020). Narcissism has been associated with prestige-seeking and impulsive spending (Pilch & Górnik-Durose, 2016; Foster et al., 2009). Psychopathy, marked by impulsivity, has been associated with reckless financial behaviors like gambling (Mathieu et al., 2013).

Effective money management promotes financial stability and may help mitigate impulsivity in individuals with higher levels of Machiavellian and narcissistic traits, whereas poor money management may contribute to greater financial instability among individuals with higher levels of psychopathic traits (Ksendzova et al., 2017). Perceived socioeconomic status (SES), reflecting one's subjective economic standing, may also play a mediating role in financial well-being (Kraus & Park, 2014). Individuals with higher levels of Machiavellian and narcissistic traits

often report higher perceived SES, potentially due to status-oriented behaviors, whereas higher levels of psychopathic traits have been associated with lower perceived SES and greater financial instability (Jonason et al., 2015; Malesza, 2020; Aluja et al., 2022).

This study aims to empirically test this mediation model, examining how money management and perceived SES shape the relationship between Dark Triad traits and financial well-being.

Method

Participants

Participation in the study required individuals to have autonomous control over their financial resources. The analysed dataset included 1550 participants from Slovakia aged 17 to 86 years, with a mean age of 40.7 years (SD = 13.87). The sample consisted of 963 women (62.1%), aged 18 to 86 years, with a mean age of 39.9 years (SD = 13.52), and 587 men, aged 17 to 81 years, with a mean age of 41.9 years (SD = 14.34). Participants were recruited using a non-random convenience and snowball sampling method.

Measures

Sociodemographic characteristics. This section included 10 items measuring gender, age, marital status, number of dependent children, education, employment contract, occupation (classified per ESCO framework; European Commission, 2023), household income (€1,000–€4,500 in €500 increments; Statistical Office of the Slovak Republic, 2023), ethnic background, and subjective socioeconomic status (MacArthur Scale; Adler et al., 2000). Age and dependent children were open-ended items, while the rest were closed-ended with predefined choices.

The Short Dark Triad Scale (Čopková & Šafár, 2021). The Slovak adaptation of the SD3 (Jones & Paulhus, 2014) assesses Machiavellianism, narcissism, and psychopathy via 27 self-report items on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). Example items include: “I like to skilfully manipulate people” (Machiavellianism; 9 items), “I know I am special” (narcissism; 9 items), and “Revenge should be quick” (psychopathy; 9 items). Five items were reverse-scored. Reliability (McDonald's omega) was .820, .740, and .810, respectively.

Brief Money Management Scale (Ksendzova et al., 2017). This 18-item scale measures savings, insurance, credit, and cash flow management on a 5-point Likert scale, with an

additional “unable to respond” option. Credit management items were reverse-scored. Reliability (omega) ranged from .750 to .820 (overall: 0.840).

The Financial Well-Being Scale (Collins & Urban, 2019). A 10-item scale measuring financial attitudes (6 items) and behaviors (4 items) on a 5-point Likert scale. Six items were reverse-scored, and scores were adjusted by age and administration mode. Reliability was excellent (omega = .900).

Procedure

The study was conducted in accordance with the 1964 Helsinki declaration an its later amendments or comparable ethical standards. The study was conducted following Code of Ethics of Technical University of Košice and approved by the Ethical Committee of Technical University of Košice (reference number 3194).

The questionnaire set was distributed to respondents exclusively in electronic form and was created using the Google Docs-Forms web application. Participants were informed about the anonymity and voluntary nature of their participation, as well as their right to discontinue the survey at any time by simply closing the application. Additionally, they were informed that the collected data would be used solely for research purposes. By completing and submitting their responses, respondents provided their informed consent to participate in the study.

No missing data were identified in the datasets. The collected data were processed using the JASP 2.4.11 statistical software. The reliability of the applied measures was estimated using McDonald's omega. The Shapiro-Wilk test of normality indicated that the data did not follow a normal distribution across all collected samples ($p < .05$). Consequently, nonparametric statistical methods were applied where necessary.

A descriptive data analysis was conducted using fundamental statistical indicators, including arithmetic mean, standard deviation, median, minimum, maximum, skewness, and kurtosis. The Spearman correlation coefficient (Spearman’s ρ) was used to examine the strength and significance of relationships between variables. To test the predictive models, mediation analysis was performed. Before conducting the mediation analysis, assumptions for its application were verified, including an adequate sample size based on the formula $(8/f^2) + (m-1)$, linearity of relationships assessed through scatter plots, absence of extreme cases verified

using Cook's distance, multicollinearity assessed via the variance inflation factor (VIF), and normality, linearity, and homoscedasticity of residuals examined through scatter plots.

Results

In the introduction to the presentation and interpretation of results, we provide a descriptive analysis of the data related to the Dark Triad, personal money management, financial well-being, and socioeconomic status (Table 1).

Table 1.
Descriptive analysis of the observed variables (N = 1550)

Dark Triad	M (SD)	Me	Min	Max	Skew	Kurtosis
Machiavellianism	28.29 (7.79)	28.00	9.00	45.00	0.111	-0.613
narcissism	28.04 (4.95)	28.00	15.00	45.00	0.228	0.069
psychopathy	18.47 (6.94)	17.00	9.00	44.00	0.800	0.198
money management	60.39 (15.11)	62.00	8.00	90.00	-0.378	-0.113
save	14.62 (4.57)	15.00	0.00	20.00	-0.618	-0.373
insurance	15.55 (6.72)	16.00	0.00	25.00	-0.321	-0.762
credit	17.75 (6.42)	20.00	0.00	25.00	-0.733	-0.304
cash	12.46 (4.68)	13.00	0.00	20.00	-0.239	-0.665
financial well-being	55.62 (13.33)	55.00	16.00	91.00	-0.119	0.319
socioeconomic status	5.99 (1.80)	6.00	1.00	10.00	-0.430	0.096

The relationships between variables are presented in Table 2. Our primary focus was on the associations between Dark Triad traits – Machiavellianism, narcissism, and psychopathy – and subjective economic indicators. The results suggest that, despite their shared underlying nature, each Dark Triad trait exhibits a distinct pattern of association with these variables.

The results indicate that Machiavellian individuals demonstrate an ability to adaptively manage their personal finances (r_s(1548) = .06; p < .001). A more detailed analysis suggests that this adaptability is particularly evident in saving (r_s(1548) = .09; p < .001) and cash flow management (r_s(1548) = .13; p < .001). However, they appear to experience difficulties in credit management (r_s(1548) = -.07; p < .05), while insurance management does not show any significant association with Machiavellianism. Despite relatively adaptive money management strategies, individuals with higher levels of Machiavellian traits do not appear to experience higher

subjective financial well-being (r_s(1548) = −.12, p < .001), and perceived socioeconomic status was not found to be significantly associated with this trait.

Similar to individuals with higher levels of Machiavellian traits, individuals with higher levels of narcissistic traits tend to exhibit better personal money management (r_s(1548) = .15, p < .001), particularly in saving (r_s(1548) = .18, p < .001) and cash flow management (r_s(1548) = .18, p < .001). However, unlike Machiavellian traits, higher levels of narcissistic traits are also associated with more effective insurance management (r_s(1548) = .14, p < .001), whereas no meaningful association was observed with credit management (r_s(1548) = −.03, p < .001). Key differences between narcissistic and Machiavellian traits also emerged in relation to financial well-being and perceived socioeconomic status. While higher levels of narcissistic traits, similar to Machiavellian traits, are not associated with higher subjective financial well-being, they are linked to a more positive perception of socioeconomic status (r_s(1548) = .08, p < .01).

A distinct pattern of results emerged for psychopathic traits, which were negatively associated with all variables related to individual economic characteristics. These findings suggest that higher levels of psychopathic traits are associated with lower adaptive money management abilities (r_s(1548) = −.31, p < .001), with deficits observed across all components, including savings management (r_s(1548) = −.19, p < .001), insurance management (r_s(1548) = −.24, p < .001), credit management (r_s(1548) = −.25, p < .001), and cash flow management (r_s(1548) = −.12, p < .001). Additionally, higher levels of psychopathic traits are associated with lower financial well-being (r_s(1548) = −.20, p < .001) and a lower perceived socioeconomic status (r_s(1548) = −.13, p < .001).

It is important to note that, although these relationships were statistically significant, their effect sizes are considered weak (Hendl, 2024). For correlation coefficients approaching zero, it is not possible to speak of robust associations; rather, we can only consider the directionality of these relationships as a potential trend.

We also considered it important to examine the relationships between subjective economic indicators. The results suggest that individuals who effectively manage their personal finances across all domains experience greater subjective financial well-being (r_s(1548) = .52; p < .001) and perceive their socioeconomic status as higher (r_s(1548) = .30; p < .001). Similarly, individuals who perceive their socioeconomic status as higher also report greater subjective financial well-being (r_s(1548) = .59; p < .001).

Table 2.
Spearman correlation of subjective economic variables and Dark Triad (N = 1550)

	Machiavellianism	Narcissism	Psychopathy
money management	.06***	.15***	-.31***
save	.09***	.18***	-.19***
insurance	.05	.14***	-.24***
credit	-.07*	-.03***	-.25***
cash	.13***	.18***	-.12***
financial well-being	-.12***	.03	-.21***
socioeconomic status	-.02	.08**	-.14***

$^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$

The theoretical framework and the results of the correlation analysis allowed us to explore more complex relationships between the studied variables. Specifically, we conducted a mediation analysis using the bootstrap method (5,000 resamples) to examine whether personal money management and perceived socioeconomic status mediate the relationship between Dark Triad traits and financial well-being (Figure 1).

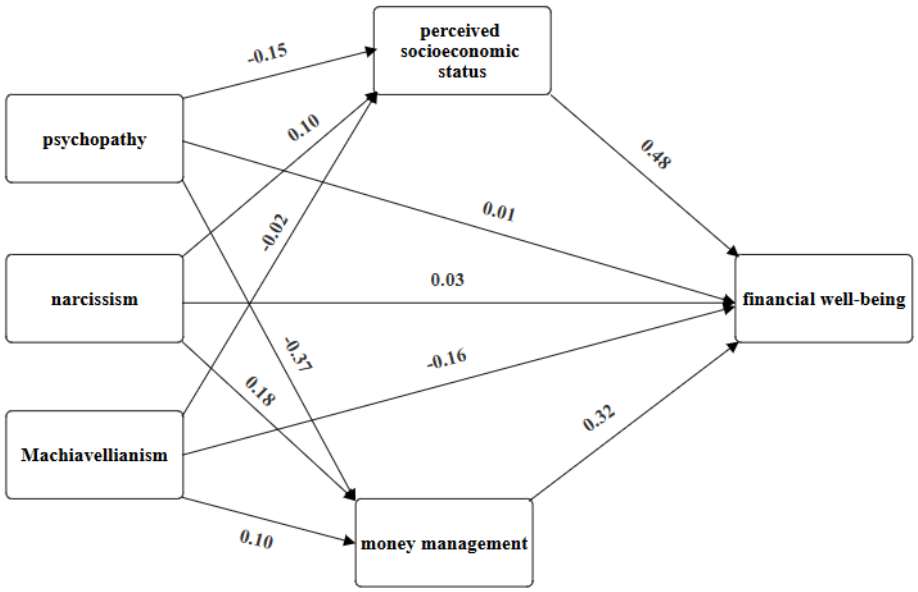

Figure 1.
Mediation Analysis of the Relationship Between the Dark Triad and Financial Well-Being

The first prerequisite for conducting the mediation analysis was to verify the significance of predictive relationships between Dark Triad traits and the potential mediators - personal money management and perceived socioeconomic status.

The results indicate a positive relationship between Machiavellianism and personal money management (b = 0.20, SE = 0.06, 95% CI [0.08, 0.31], p < .001). Similarly, narcissism was positively associated with personal money management (b = 0.56, SE = 0.09, 95% CI [0.39, 0.74], p < .001). In contrast, psychopathy showed a significant negative relationship with personal money management (b = -0.80, SE = 0.06, 95% CI [-0.90, -0.69], p < .001).

Additionally, narcissism was positively associated with perceived socioeconomic status (b = 0.04, SE = 0.01, 95% CI [0.01; 0.06], p < .001), whereas psychopathy was negatively associated with perceived socioeconomic status (b = -0.04, SE = 0.01, 95% CI [-0.05, -0.02], p < .001). The relationship between Machiavellianism and perceived socioeconomic status was not statistically significant (b = -0.01, SE = 0.01, 95% CI [-0.02, 0.01], p = .544).

The second prerequisite was to verify the significance of predictive relationships between the potential mediators (personal money management and perceived socioeconomic status) and the dependent variable (financial well-being). The results indicate that financial well-being was positively predicted by both personal money management (b = 0.27, SE = 0.02, 95% CI [0.25, 0.33], p < .001) and perceived socioeconomic status (b = 3.55, SE = 0.15, 95% CI [3.27, 3.89], p < .001).

The third prerequisite was to verify the presence of direct significant predictive relationships between the independent variables (Dark Triad traits) and the dependent variable (financial well-being). For Machiavellianism, a significant negative relationship with financial well-being was observed (b = -0.28, SE = 0.04, 95% CI [-0.36, -0.20], p < .001). In contrast, the direct relationships between narcissism (b = 0.08, SE = 0.06, 95% CI [-0.04, 0.19], p = .190) and psychopathy (b = -0.01, SE = 0.04, 95% CI [-0.08, 0.08], p = .970) with financial well-being were not significant.

Finally, the mediation analysis revealed several significant indirect effects. For narcissism, both mediators were significant. The indirect effect through personal money management was significant (b = 0.16, SE = 0.03, 95% CI [0.11, 0.23], p < .001), as was the indirect effect through perceived socioeconomic status (b = 0.13, SE = 0.04, 95% CI [0.05, 0.21], p < .001).

A more detailed mediation analysis (Figure 2) of personal money management reveals that savings management (b = 0.19; SE = 0.03; p < .001; 95% CI [0.13, 0.25]) and insurance management (b = 0.04; SE = 0.01; p < .001; 95% CI [0.01, 0.06]) positively mediate the relationship between narcissism and financial well-being. In contrast, cash flow management acts as a negative mediator in this relationship (b = -0.04; SE = 0.01; p < .001; 95% CI [-0.06; -0.02]).

In the case of psychopathy, both indirect effects were also significant but negative. Personal money management mediated the relationship between psychopathy and financial well-being (b = -0.23, SE = 0.02, 95% CI [-0.27, -0.19], p < .001), as did perceived socioeconomic status (b = -0.14, SE = 0.03, 95% CI [-0.19, -0.08], p < .001).

A detailed mediation analysis of personal money management further reveals that savings management (b = -0.20; SE = 0.02; p < .001; 95% CI [-0.24; -0.15]), insurance management (b = -0.05; SE = 0.01; p < .001; 95% CI [-0.07; -0.02]), and credit management (b = -0.05; SE = 0.01; p < .001; 95% CI [-0.08; -0.03]) negatively mediate the relationship between psychopathy and financial well-being. In contrast, cash flow management acts as a positive mediator in this relationship (b = 0.03; SE = 0.01; p < .001; 95% CI [0.02; 0.05]).

However, since the 95% confidence interval did not include zero value, this suggests that personal money management and perceived socioeconomic status are only two of several potential mediating factors in the relationship between Dark Triad traits and financial well-being.

Considering the presence of a direct effect between Machiavellianism and financial well-being, the indirect positive effect through personal money management can be interpreted as competitive mediation (b = 0.06; SE = 0.02; p < .001; 95% CI [0.02; 0.09]). In contrast, perceived socioeconomic status did not mediate the examined relationship (b = -0.02; SE = 0.03; p = .544; 95% CI [-0.07; 0.03]), indicating that only a direct effect is present in this association.

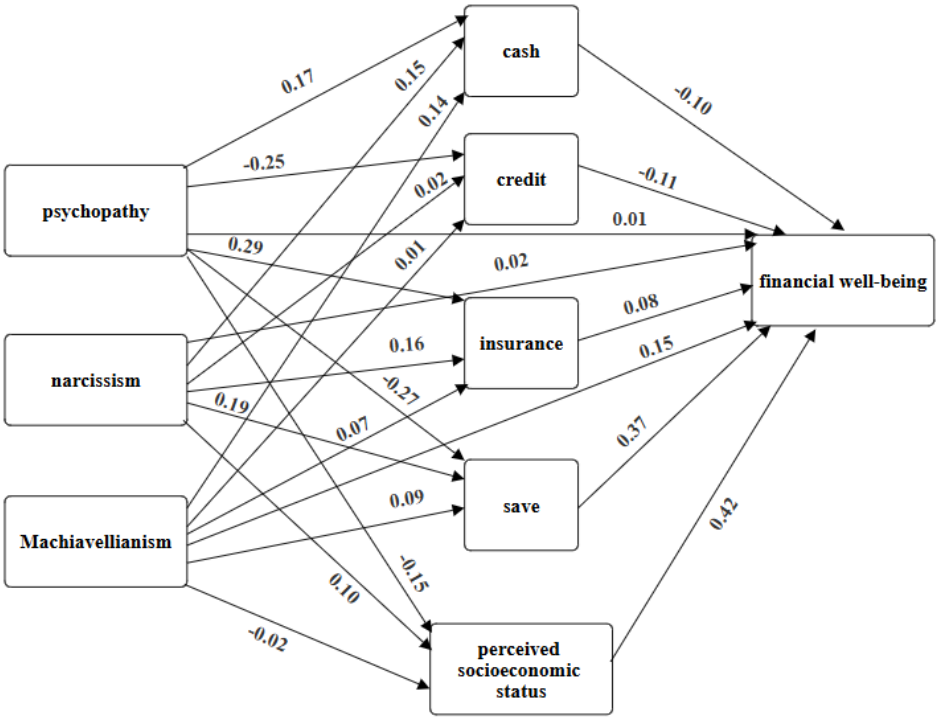

Figure 1.

Mediation Analysis of the Relationship Between the Dark Triad and Financial Well-Being – Factors of Money Management

Discussion and conclusion

The present study aimed to explore the complex relationships between subjective economic indicators while emphasizing specific aversive personality traits known as the Dark Triad – Machiavellianism, narcissism, and psychopathy.

The analysis of relationships between variables revealed that individuals with higher levels of Machiavellian traits tend to exhibit more adaptive money management, particularly in long-term financial decisions such as saving, as well as in short-term cash flow budgeting. These findings are consistent with previous research by Sekścińska and Rudzinska-Wojciechowska (2020), which suggests that higher levels of Machiavellian traits are associated with a lower tendency toward risky financial behavior and a stronger orientation toward long-term profit. Similarly, Boonroungrut et al. (2020) highlight that individuals with higher levels of Machiavellian traits tend to engage in strategic investment planning and demonstrate a greater propensity to save. However, the present findings indicate that higher levels of Machiavellian traits are not

associated with greater financial well-being, which may be linked to a persistent pursuit of wealth (Malesza, 2020), potentially to the extent that money is perceived as an object of affection (Maggalatta & Adhariani, 2020), serving as a symbol of power and status.

The findings on narcissism and its relationship with the examined variables provided further notable insights. Similar to Machiavellian traits, higher levels of narcissistic traits are associated with adaptive money management, particularly in long-term financial planning, including saving and insurance management, as well as effective cash flow management. This may be explained by the fact that access to financial resources can help individuals with higher levels of narcissistic traits reduce anxiety associated with ego threats (Pilch & Górnik-Durose, 2016), while at the same time providing a sense of prestige and belonging to a higher social class (Aluja et al., 2022; Malesza, 2020). In this context, the findings of Foster et al. (2009) and Zhao et al. (2016) may appear somewhat paradoxical, as they highlight more aggressive investment tendencies associated with higher levels of narcissistic traits, which may stem from an underestimation of financial risk. This risk-taking behavior may be driven by narcissistic fantasies of success and inflated self-confidence (Jonason et al., 2014), as well as by their dispositional lack of self-control (Vazire & Funder, 2006).

It was found that individuals with higher levels of narcissistic traits experience lower financial well-being, which may be attributed to a persistent need for ego reinforcement (Morf & Rhodewalt, 2001), making it difficult to achieve lasting satisfaction. Additionally, their belief in their own importance and superiority (Jonason et al., 2014) appears to be a key factor in their positive perception of socioeconomic status, as identified in our analyses.

The mediation analysis provided a broader perspective on these relationships. The results revealed that the relationship between narcissism and financial well-being was positively mediated by both personal money management and perceived socioeconomic status. Based on these findings, it could be assumed that higher narcissism is associated with better money management and a higher perceived socioeconomic status, which, in turn, contributes to greater financial well-being. More specifically, higher narcissism is linked to better management of savings and insurance but poorer management of cash flow. Furthermore, better savings and insurance management enhances financial well-being, while poor cash flow management is associated with lower financial satisfaction.

As expected and in line with previous findings, the analysis of associations between psychopathy and the examined variables confirmed its negative relationships with money management across all domains (savings, loans, insurance, and cash flow). These findings align with core characteristics of psychopathy, such as a lack of responsibility and difficulty setting and pursuing long-term goals (Paulhus & Williams, 2002; Szabó et al., 2023). Individuals with higher levels of psychopathic traits also tend to show limited engagement in long-term financial planning, take higher investment risks, and exhibit more impulsive decision-making. (Boonroungrut et al., 2020). Consequently, they experience lower financial well-being. Moreover, based on findings it was suggested that they do not perceive their socioeconomic status as high, which may be partly explained by their lack of concern for others' opinions (Jones & Paulhus, 2011) and the overall association between psychopathy and lower social status (Aluja et al., 2022).

Jonason et al. (2016) suggest that adverse economic conditions in childhood may contribute to the development of psychopathy. The mediation analysis of these relationships revealed that the association between psychopathy and financial well-being is negatively mediated by both personal money management and perceived socioeconomic status. These results indicate that the more psychopathic traits an individual exhibits, the worse they manage their personal finances and the lower they perceive their socioeconomic standing. Furthermore, poor money management and a less favorable perception of one's socioeconomic status contribute to lower financial well-being. More specifically, higher psychopathy is associated with poorer management of savings, insurance, and loans, which in turn leads to lower financial well-being. However, an interesting contrast emerges – higher psychopathy is linked to better cash flow management, and better cash flow management is associated with greater financial satisfaction.

Limitations of the study

It is acknowledged that certain limitations are present in this study and should be considered when interpreting the results. The self-report nature of the scales used captures respondents' perceptions of themselves, which may not fully reflect their actual attitudes or behavioral tendencies. This limitation is particularly relevant for scales measuring potentially negative traits. Given the aversive nature of these personality traits, there is an increased risk of socially desirable responding. To address this, future research should consider incorporating measures of social desirability bias, such as the Marlowe-Crowne Social Desirability Scale (Crowne &

Marlowe, 1960), to better assess and control for this potential response bias. Low reliability was observed in some subscales, which may be attributed to their small number of items. As noted by Pallant (2011), low reliability is a common issue in short scales. Another potential limitation is the use of methodological tools that have not yet been fully adapted for the Slovak population, which may have introduced measurement biases affecting the results. Additionally, data collection via an online survey presents certain challenges. This method does not allow for verification of participant eligibility, meaning it is difficult to ensure that the questionnaire was completed by individuals meeting the study's inclusion criteria or to prevent multiple submissions from the same respondent. However, one advantage of online data collection is the ability to require responses to all items, ensuring that participants cannot submit incomplete questionnaires.

The study was based on correlational analyses, which allowed us to identify associations between certain personality traits and financial behavior. However, it should be noted that correlation does not imply causation, and thus it cannot be established whether higher levels of aversive personality traits directly cause specific economic decisions. To address this limitation, future research should consider longitudinal or experimental studies, which would provide a stronger basis for testing causal relationships between these variables.

The results of the mediation model demonstrated that the relationship between Dark Triad traits and financial well-being is mediated by personal money management and perceived socioeconomic status (SES). This finding suggests that improving these two factors could help individuals manage their finances more effectively and achieve higher financial well-being. From a practical perspective, these insights can be differentiated into psychological and economic implications. Psychological implications involve tailoring financial strategies to individual personality traits, ensuring that financial planning and management approaches are aligned with an individual’s dispositional tendencies.

Given that individuals with higher levels of psychopathic traits tend to exhibit poorer money management and a greater tendency toward impulsive spending, behavioral interventions should focus on self-regulation techniques and cognitive-behavioral strategies to help reduce engagement in risky financial behaviors. Psychological techniques such as delayed gratification training and long-term financial planning exercises could be particularly effective in fostering greater financial control.

Given that individuals with higher levels of narcissistic traits tend to view money as a symbol of status and prestige, interventions should focus on increasing awareness of the long-term consequences of financial decisions and promoting sustainable strategies for achieving economic success. Encouraging financial self-reflection may help mitigate their propensity for reckless spending and excessive risk-taking, ultimately leading to more balanced financial behaviors.

Since individuals with higher levels of Machiavellian traits tend to engage in strategic financial planning but may also be more likely to adopt manipulative or unethical practices to achieve economic gain, psychological interventions should emphasize the long-term consequences of unethical behavior and promote moral values in financial decision-making. Encouraging ethical considerations in financial planning could reduce exploitative tendencies while maintaining their strategic approach to wealth accumulation.

It was also found that perceived socioeconomic status (SES) is a key predictor of financial well-being. Thus, psychological training programs should incorporate financial confidence-building exercises, helping individuals feel more economically competent and better equipped to handle financial challenges.

Moreover, individuals with higher levels of narcissistic and Machiavellian traits may perceive their socioeconomic status (SES) as higher than it objectively is, which - combined with overconfidence in their financial abilities - may lead to increased financial risk-taking. To counteract unrealistic self-assessments, psychological interventions should include self-monitoring of expenses and realistic financial self-evaluation to help prevent risky financial behaviors.

From the perspective of future research directions, it could be interesting to examine this issue through the lens of digital finance and risk tolerance in this context.

Data availability statement

The data that support the findings of this study are available from the corresponding author upon request.

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