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Predicting Addiction Tendency in Adolescents Based on Dark Personality Traits, Social Isolation, and Psychological Hardiness

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A B S T R A C T

The present study aimed to predict the tendency toward addiction in adolescents based on dark personality traits, social isolation, and psychological hardiness. This study is applied in its objective, quantitative in nature, and employs a descriptive-correlational statistical approach. The study population included all adolescents enrolled in upper secondary schools in Shiraz during the year 2025. The sample consisted of 200 adolescents selected through cluster sampling from secondary schools in District 2 of Shiraz. In the field phase, quantitative data on the variables were collected using the following instruments: the Addiction Tendency Questionnaire by Mousavi et al. (2008), the Dark Triad Personality Questionnaire by Johnson and Webster (2010), the Social Isolation Questionnaire by Chalabi and Amirkafi (2004), and the Psychological Hardiness Questionnaire by Kobasa (1982). The data collected from the questionnaires were analyzed using SPSS version 28. To examine the research hypotheses, Pearson correlation tests and multiple regression analysis were used. The results showed that the dimensions of dark personality traits, psychological hardiness, and social isolation collectively accounted for 36% of the variance in addiction tendency scores. Furthermore, the Machiavellianism component positively and significantly predicted addiction tendency ($\beta = 0.298$, $p = .001$). The antisocial component also positively and significantly predicted addiction tendency ($\beta = -0.328$, $p = .001$). The cognitive component of psychological hardiness negatively and significantly predicted addiction tendency ($\beta = -0.267$, $p = .005$). Additionally, social isolation positively and significantly predicted addiction tendency ($\beta = 0.429$, $p = .001$). Therefore, addiction tendency can be predicted by dark personality traits, social isolation and psychological hardiness.

Keywords: *addiction tendency, dark personality traits, social isolation, psychological hardiness*

1. Introduction

Adolescence is a pivotal developmental period marked by significant biological, psychological, and social transitions. During this stage, individuals often experiment with various behaviors, including those that may pose serious risks to their health and well-being, such as substance use and addiction. Identifying the predictors of addiction tendency among adolescents is therefore a crucial task in both preventive psychology and public health. Recent research has emphasized the role of personality traits, social experiences, and internal coping capacities in shaping vulnerability to addiction, particularly in high-risk youth populations (Reyes et al., 2024; Temane et al., 2023). Among these, dark personality traits, social isolation, and psychological hardiness have emerged as key psychological variables associated with addictive behavior patterns.

The "Dark Triad" of personality—comprising Machiavellianism, narcissism, and psychopathy—has been extensively studied in recent years as a constellation of socially aversive traits that can influence a variety of maladaptive behaviors, including substance misuse (Garcia et al., 2022; Schreiber & Marcus, 2020). Adolescents high in Machiavellianism may use manipulation and deception as adaptive tools in social environments, often disregarding the ethical or social consequences of their behavior. Narcissism, characterized by inflated self-importance and entitlement, has been linked with impulsive decision-making and sensation-seeking, both of which can contribute to a tendency toward addictive behaviors (Szabó et al., 2023). Psychopathy, marked by low empathy and high impulsivity, is perhaps the most directly associated with behavioral disinhibition, which can serve as a strong predictor of early substance use initiation and addiction (Heidari Mofard et al., 2023).

In addition to dispositional personality traits, environmental and interpersonal factors such as social isolation also significantly contribute to addiction vulnerability. The feeling of being disconnected from social networks can foster emotional distress, reduce access to protective social support, and ultimately increase the likelihood of engaging in maladaptive coping strategies such as drug use (Aghajani et al., 2022; Karami et al., 2022). Social isolation has been increasingly recognized as a major public health issue exacerbated by contemporary societal changes, including increased digital engagement and disrupted face-to-face interactions, especially during the COVID-19 pandemic (Liu et al., 2023; Lu et al., 2024; Tahir & Jan, 2023). Adolescents are particularly sensitive to social exclusion, and the lack of social bonding can lead to heightened emotional reactivity and susceptibility to peer influence, both of which are risk factors for substance abuse (Gohari et al., 2025; Lee et al., 2021).

Psychological hardiness, as a resilience-promoting trait, serves as a potential buffer against addiction by enabling individuals to withstand stress and adversity. Originally conceptualized by Kobasa, hardiness encompasses three main components: commitment, control, and challenge. It reflects a generalized style of functioning that affects how individuals interpret and respond to stressful circumstances. A hardy individual is more likely to perceive challenges as opportunities, maintain a strong sense of purpose, and believe in their ability to influence outcomes—all of which reduce the appeal or need for substance use as an escape mechanism (Bartone et al., 2022; Carlucci & McCuaig Edge, 2022). Empirical findings have demonstrated that individuals with higher levels of psychological hardiness report lower levels of addiction tendencies and substance dependence, suggesting its protective role across diverse populations (Khadse et al., 2024; Liu et al., 2024; Nooripour et al., 2022).

The interaction between these constructs—dark personality traits, social isolation, and psychological hardiness—provides a multifaceted perspective on adolescent addiction tendency. While the presence of dark traits may predispose individuals to deviant and risky behaviors, social isolation may serve as a facilitating condition, and psychological hardiness may moderate or mitigate such tendencies. For instance, adolescents with high psychopathy may be particularly prone to addiction if they also experience high levels of social isolation and low levels of hardiness (Dermani & Perdikaris, 2022; Naderifar et al., 2023). Conversely, even in the presence of dark traits, adolescents with strong psychological hardiness may resist the impulse to engage in substance abuse due to more adaptive coping strategies and better emotional regulation capacities (Ebrahimzade & Sohrabi, 2021; Rezaei & Vakilian, 2021).

Furthermore, cultural and environmental factors unique to specific regions—such as Iran's sociopolitical context and youth exposure to digital environments—add complexity to the risk architecture. For instance, wastewater-based epidemiology has highlighted patterns of illicit drug use in Iran that reflect broader societal trends, including stress coping deficiencies and peer-driven behaviors among adolescents (Asadi et al., 2025). The escalation in

prescription opioid misuse, especially among university-aged populations in the Middle East, underscores the regional relevance of studying addiction vulnerability from an integrative psychological and environmental perspective (Dabbagh et al., 2023).

In this context, the present study seeks to bridge these theoretical and empirical insights by investigating the predictive power of dark personality traits, social isolation, and psychological hardiness in determining addiction tendencies in adolescents.

2. Methods and Materials

2.1. Study Design and Participants

The present study is applied in purpose, quantitative in nature, and methodologically falls within the descriptive-correlational design of a predictive type, which investigates the relationship between two or more variables. The target population consisted of all adolescents in the city of Shiraz in the year 2025 who were enrolled in upper secondary schools. The sample comprised 200 adolescents selected through a cluster sampling method from upper secondary schools in District 2 of Shiraz. Data collection was conducted at two levels: field and library-based. Initially, relevant sources were reviewed at the library level, and then, upon obtaining permission to administer the questionnaires, quantitative data on the research variables were collected in the field using the designated instruments. After collecting the data, the questionnaires were analyzed. In conducting this research, ethical considerations related to human participants were strictly observed and are summarized as follows: (1) participants were assured that the data collected would remain confidential and be used solely for research purposes; (2) participants were informed that the results would be reported in aggregate form and not attributed to any individual; (3) it was clearly stated that providing names on the questionnaires was not mandatory.

2.2. Measures

2.2.1. Psychological Hardiness

Kobasa (1990) developed this self-report scale to assess individuals' levels of psychological hardiness. The questionnaire consists of 50 items and three subscales: commitment, control, and challenge. Participants respond using a 4-point Likert scale (ranging from "not true at all" to "completely true"). Items are scored from 0 to 3, with higher scores indicating greater hardiness. The internal consistency of the scale has been reported with a Cronbach's alpha of .83. In Iran, the reliability was calculated using Cronbach's alpha, yielding coefficients of .76 for the total scale and .86, .77, and .85 for the control, commitment, and challenge subscales, respectively.

2.2.2. Addiction Tendency

This scale was developed by Mousavi et al. in 2008, adapted from scientific sources such as a researcher-made questionnaire in Farjad's book (2006). It consists of 16 items rated on a 5-point Likert scale ranging from "never = 1" to "always = 5." The total score ranges from 16 to 80, with higher scores indicating a greater tendency toward addiction. In the study by Farid et al., the reliability and validity were reported as .638 and .792, respectively. In the study by Rahbari Ghazani and colleagues, the Cronbach's alpha coefficient was .797.

2.2.3. Dark Personality Traits

This instrument was developed by Johnson and Webster (2010) and consists of 12 items measuring three traits: Machiavellianism (items 1–4), narcissism (items 5–8), and psychopathy (items 9–12). Respondents rate themselves on a 7-point Likert scale ranging from "strongly agree = 1" to "strongly disagree = 7." Higher scores indicate stronger presence of the trait. The test–retest reliability for the total scale was reported as .89, and for the subscales of Machiavellianism, narcissism, and psychopathy as .86, .87, and .76, respectively. The internal consistency reliability was reported at .81 using Cronbach's alpha. This questionnaire has been shown to possess adequate psychometric properties for use in Iranian populations. In the present study, the Cronbach's alpha was .80.

2.2.4. Social Isolation

This questionnaire was developed and validated by Chalabi and Amirkafi (2004). It consists of 18 items across four components: social loneliness (6 items), helplessness (3 items), social despair (5 items), and reduced social tolerance (4 items). Items are rated on a 5-point Likert scale ranging from "strongly disagree = 1" to "strongly agree = 5," with higher scores indicating greater levels of social isolation. The content, face, and criterion validity of this questionnaire have been deemed acceptable. Cronbach's alpha was used to assess the reliability of each dimension, with each subscale demonstrating satisfactory internal consistency.

2.3. Data Analysis

The data obtained from the questionnaires were analyzed using SPSS version 28. Both descriptive and inferential statistics were employed. Descriptive statistics were used to calculate means, standard deviations, and score ranges for the variables. Pearson correlation and multiple regression tests were used to evaluate the research hypotheses.

3. Findings and Results

Table 1 presents the frequency and percentage of demographic variables of the participant groups based on age and gender.

Table 1

Frequency and Percentage of Demographic Variables

Variable	Group	Frequency	Percentage
Gender	Female	100	50%
	Male	100	50%
Age	16 years	66	33%
	17 years	80	40%
	18 years	54	27%

As shown in Table 2, the mean and standard deviation for the Machiavellianism dimension among participants were 17.45 and 4.23, respectively. The mean and standard deviation for narcissism were 19.51 and 3.87, respectively. The mean and standard deviation for psychopathy were 16.00 and 4.22, respectively. The mean and standard deviation for psychological hardiness were 49.09 and 7.85, respectively. The mean and standard deviation for social isolation were 44.72 and 6.45, respectively, and the mean and standard deviation for addiction tendency were 33.61 and 5.83, respectively.

Table 2

Mean and Standard Deviation of Research Variables

Variables	Dimensions	Mean	SD	Min	Max
Dark Personality Traits	Machiavellianism	17.45	4.23	6	31
	Narcissism	19.51	3.87	7	32
	Psychopathy	16.00	4.22	6	30
Psychological Hardiness	—	49.09	7.85	31	73
Social Isolation	—	44.72	6.90	17	68
Addiction Tendency	—	33.61	5.83	19	64

Table 3 displays the results of Pearson correlation tests to examine the relationships between research variables. As observed, there is a significant positive correlation between Machiavellianism and addiction tendency ($\beta = 0.300$, $p = .001$). There is also a significant positive correlation between narcissism and addiction tendency ($\beta = 0.254$, $p = .005$), and between psychopathy and addiction tendency ($\beta = 0.176$, $p = .031$). A significant negative correlation exists between psychological hardiness and addiction tendency ($\beta = -0.329$, $p = .001$), while social isolation has a significant positive correlation with addiction tendency ($\beta = 0.409$, $p = .001$).

Table 3

Pearson Correlation Matrix Between Research Variables

	Machiavellianism	Narcissism	Psychopathy	Psychological Hardiness	Social Isolation	Addiction Tendency
Machiavellianism	1					
Narcissism	0.418	1				
Psychopathy	0.328	0.255	1			
Psychological Hardiness	-0.290	-0.370	-0.341	1		
Social Isolation	0.347	0.199	0.341	-0.289	1	
Addiction Tendency	0.300	0.254	*0.176*	-0.329	0.409	1

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To predict addiction tendency based on dark personality trait dimensions, psychological hardiness, and social isolation, multiple regression analysis was conducted, and the results are presented in Table 4. According to Table 4, the coefficient of determination (R) is 0.603, and the coefficient of determination (R^2) is 0.363. In other words, dark personality traits, psychological hardiness, and social isolation together explain 36% of the variance in addiction tendency scores. Moreover, Machiavellianism significantly and positively predicts addiction tendency (β = 0.298, p = .001). Psychopathy significantly and negatively predicts addiction tendency (β = -0.328, p = .001). Psychological hardiness significantly and negatively predicts addiction tendency (β = -0.267, p = .005). Finally, social isolation significantly and positively predicts addiction tendency (β = 0.429, p = .001).

Table 4

Multiple Regression Analysis for Predicting Addiction Tendency Based on Dark Personality Traits, Psychological Hardiness, and Social Isolation

Predictor Variable	R	R^2	F	p	β	t	p
Machiavellianism	0.603	0.363	48.338	.001	0.298	3.112	.001
Narcissism					0.126	1.388	.154
Psychopathy					-0.328	3.473	.001
Psychological Hardiness					-0.267	2.998	.005
Social Isolation					0.429	4.529	.001

4. Discussion and Conclusion

The findings of the present study indicate that dark personality traits, social isolation, and psychological hardiness significantly predict addiction tendency in adolescents. Among the dark triad traits, Machiavellianism and psychopathy demonstrated significant positive relationships with addiction tendency, while narcissism, though correlated, did not significantly predict addiction in the regression model. Moreover, social isolation was a strong positive predictor, and psychological hardiness was a significant negative predictor of addiction tendency. These results underscore the multifaceted psychological vulnerabilities that contribute to substance use tendencies during adolescence.

The positive predictive role of Machiavellianism aligns with previous findings that adolescents high in manipulativeness and strategic interpersonal behavior are more prone to engage in high-risk behaviors, including substance use, possibly due to a lack of concern for social norms and long-term consequences (Heidari Mofard et al., 2023; Szabó et al., 2023). Machiavellian individuals often operate with instrumental motives and perceive substance use as a means to achieve short-term gratification or social dominance. Similarly, the significant positive association between psychopathy and addiction tendency is consistent with studies suggesting that impulsivity, emotional detachment, and low empathy—core features of psychopathy—reduce behavioral inhibition and increase the likelihood of addictive behaviors (Garcia et al., 2022; Schreiber & Marcus, 2020). Interestingly, although narcissism showed a significant correlation with addiction tendency, it was not a significant predictor in the regression model, suggesting that while narcissistic individuals may experiment with risky behaviors, other traits such as impulsivity or low conscientiousness may mediate this relationship (Szabó et al., 2023).

The study also found that social isolation significantly predicts addiction tendency, a result that confirms the central role of interpersonal disconnection in driving maladaptive coping mechanisms in youth (Karami et al., 2022; Liu et al., 2023). Adolescents who perceive themselves as socially excluded or unsupported may turn to substance use as a substitute for meaningful social interaction or as a method to escape emotional discomfort. The psychological distress stemming from isolation, especially post-pandemic, has been widely documented to increase vulnerability to addiction and mental health disorders (Lu et al., 2024; Tahir & Jan, 2023). Gohari and colleagues also observed that interventions targeting social isolation had measurable impacts on psychological outcomes in elderly populations, suggesting that social disconnection across the lifespan is a generalizable risk factor for psychological dysfunction and addiction (Gohari et al., 2025). Furthermore, this finding reinforces the developmental perspective that social bonds serve as protective mechanisms during adolescence, and their absence can create fertile ground for risk-taking and substance use (Aghdaki & Seddighi Arfaei, 2023; Temane et al., 2023).

In contrast, psychological hardiness emerged as a significant negative predictor of addiction tendency. This finding is in line with studies that characterize hardiness as a resilience-promoting trait that enables individuals to perceive stressful circumstances as manageable and meaningful (Bartone et al., 2022; Carlucci & McCuaig Edge, 2022). Adolescents with high levels of commitment, control, and challenge are more likely to use constructive coping strategies and are less inclined to resort to substance use as an escape. Nooripour et al. found that psychological hardiness moderated the impact of COVID-19 stress on mental health outcomes, mediated by mindfulness, highlighting its buffering role in times of crisis (Nooripour et al., 2022). Similarly, Liu and colleagues emphasized the protective role of hardiness in financially-struggling medical students, particularly when coupled with adaptive coping styles and gender-sensitive support mechanisms (Liu et al., 2024). In the context of addiction, hardiness appears to function as a personal resource that mitigates the influence of risk factors such as impulsivity and emotional dysregulation.

The regression analysis results showed that the combined influence of dark personality traits, social isolation, and psychological hardiness explained 36% of the variance in addiction tendency, a substantial proportion indicating the psychological determinism involved in this behavior. These findings mirror those of Rezaei and Vakilian, who found that psychological hardiness and illness perception significantly predicted health outcomes in COVID-19 survivors, reinforcing the importance of internal beliefs and coping mechanisms in determining psychological trajectories (Rezaei & Vakilian, 2021). Likewise, Ebrahimzade and Sohrabi concluded that both psychological hardiness and intolerance of ambiguity were associated with reduced addiction tendencies, confirming the protective function of hardiness in the addiction pathway (Ebrahimzade & Sohrabi, 2021). The current results also support the mediating frameworks proposed in studies that link emotional well-being and cognitive-emotional regulation to the addiction process in youth populations (Aghajani et al., 2022; Naderifar et al., 2023).

Incorporating the regional perspective, the present study resonates with Asadi et al.'s findings on the presence of illicit drugs in Iranian wastewater, which reflect the concerning behavioral trends among Iranian youth and the urgency of identifying psychological predictors to inform preventive interventions (Asadi et al., 2025). Moreover, the increasing misuse of prescription opioids among university students in the Middle East reported by Dabbagh and colleagues underscores a broader regional vulnerability to substance misuse, potentially exacerbated by sociocultural stressors, economic hardship, and peer influence (Dabbagh et al., 2023). These regional data contextualize the findings of this study and emphasize the importance of early psychological screening and mental health interventions targeting adolescents.

Additionally, the observed associations between dark personality traits and addiction are consistent with the meta-analytic clarifications proposed by Schreiber and Marcus, who integrated dark triad traits into broader personality models to explain maladaptive behaviors (Schreiber & Marcus, 2020). These traits may interact with structural personality dimensions such as neuroticism or low agreeableness to facilitate risk behaviors. Mahmodfakhe's study on moral disengagement during the COVID-19 pandemic further highlights how dark traits interact with situational variables and cognitive beliefs to shape deviant behaviors such as marketing manipulation or addiction (Mahmodfakhe, 2022).

The findings also have implications for understanding the emerging behavioral addictions such as internet and smartphone addiction. Alotaibi et al. found that smartphone addiction was associated with poor academic performance and diminished mental well-being, particularly in socially isolated students, echoing the role of disconnection and impulsivity (Alotaibi et al., 2022). Likewise, Dermani and Perdikaris identified psychological vulnerabilities as central in internet addiction among adolescents, a non-substance addiction sharing many psychological correlates with traditional substance use (Dermani & Perdikaris, 2022). Therefore, dark personality traits and social isolation may not only predict substance addiction but may also underlie broader addictive behavior profiles.

Finally, the buffering role of hardiness is further validated by research on front-line workers, such as that of Naderi Lordegani and Chorami, who reported that meta-cognitive training improved quality of life and hardiness in emergency personnel (Naderi Lordegani & Chorami, 2021). These findings collectively suggest that hardiness training programs could be integrated into school-based psychological education to foster resilience and reduce addiction risk.

One of the primary limitations of this study is its reliance on self-report questionnaires, which are subject to biases such as social desirability and inaccurate self-perception. Furthermore, the cross-sectional design of the study

precludes causal inferences. Although the statistical models suggest predictive relationships, the directionality between variables such as psychological hardiness and addiction tendency cannot be definitively established. Additionally, the study was conducted in a specific cultural and geographical context (Shiraz, Iran), which may limit the generalizability of the findings to other adolescent populations in different sociocultural environments.

Future research should consider longitudinal designs to explore how dark personality traits, social isolation, and psychological hardiness interact over time to influence addiction trajectories. It would also be beneficial to explore potential mediating and moderating variables such as emotional regulation, peer influence, and parental attachment. Including qualitative methodologies such as in-depth interviews could provide richer insights into the lived experiences of adolescents struggling with addiction tendencies. Future studies could also compare at-risk and non-at-risk populations to better understand protective versus risk-enhancing pathways.

Preventive programs in schools should include training on resilience-building and hardiness to reduce susceptibility to addiction. Interventions targeting social isolation—such as peer mentorship and social skills workshops—may be particularly effective for adolescents who lack supportive networks. Screening for dark personality traits in school counseling settings could help identify students at higher risk and direct them to tailored interventions. Lastly, fostering strong teacher-student and parent-child relationships can act as external buffers, promoting emotional security and reducing the appeal of substance use as a coping mechanism.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

References

Aghajani, S., Parzor, P., & Ahmadi, S. (2022). The role of risk perception and social isolation in predicting COVID-19 anxiety through the mediation of health anxiety in students. *Journal of Health and Care*, *23*(1), 7-19. https://doi.org/10.52547/jhc.23.1.7

Aghdaki, F., & Seddighi Arfaei, F. (2023). The role of perceived social support and anger in predicting addiction tendencies in adolescents. *Quarterly Journal of Addiction Studies*, *17*(67), 229-244. https://doi.org/10.52547/etiadpajohi.17.67.229

Alotaibi, M. S., Fox, M., Coman, R., Ratan, Z. A., & Hosseinzadeh, H. (2022). Smartphone addiction prevalence and its association on academic performance, physical health, and mental well-being among university students in Umm Al-Qura University (UQU), Saudi Arabia. *International journal of environmental research and public health*, *19*(6), 37-47. https://doi.org/10.3390/ijerph19063710

Asadi, A., Zarei, S., Daglioglu, N., Guzel, E. Y., & Ravankhah, N. (2025). Illicit drug use derived from wastewater-based epidemiology in Iran, their removal during wastewater treatment, and occurrence in receiving waters. *Heliyon*, *11*(3DO - 10.1016/j.heliyon.2025.e42516). https://www.cell.com/heliyon/fulltext/S2405-8440(25)00896-5

Bartone, P. T., McDonald, K., & Hansma, B. J. (2022). Hardiness and burnout in adult US workers. *Journal of Occupational and Environmental Medicine*, *64*(5), 397-402. https://doi.org/10.1097/JOM.0000000000002448

Carlucci, S., & McCuaig Edge, H. (2022). An exploratory analysis of hardiness and health behaviours in Canadian Armed Forces recruits. *Journal of Military, Veteran and Family Health*, *8*(2), 94-103. https://doi.org/10.3138/jmvfh-2021-0068

Dabbagh, R., Alsulimani, A., Alshamrani, S., Abuhaimed, A., Alzaid, W., Aldofyan, M., Rawson, R., Darijani, S. R., Seyedmirzaei, H., Nakhostin-Ansari, A., Menbari-Oskouie, I., Ghaseminejad-Raeini, A., Nasoori, H., & Akhondzadeh, S. (2023). Prescription opioid misuse in relation to addiction susceptibility among women at a Saudi universityJO - Saudi Pharmaceutical Journal Burden of Substance Use Disorders in the Middle East and North Africa from 1990 to 2019. *Balkan Medical Journal*, *31*(10), 101764. https://doi.org/10.1016/j.jsps.2023.101764 10.4274/balkanmedj.galenos.2025.2024-11-61

Dermani, H., & Perdikaris, P. (2022). Internet addiction and psychological impact on adolescents: A scoping review. *International Journal of Biological and Pharmaceutical*

Sciences Archive, *4*(2), 73-87. https://doi.org/10.53771/ijbpsa.2022.4.2.0096

Ebrahimzade, S., & Sohrabi, F. (2021). Predicting addiction tendency based on the variables of psychological hardiness and intolerance of ambiguity in university students. *etiadpajohi*, *15*(61), 283-302. https://doi.org/10.52547/etiadpajohi.15.61.283

Garcia, M., Rouchy, E., Colins, O., Andershed, H., & Michel, G. (2022). Validation of the French Youth Psychopathic Traits Inventory-Short Version in a general population sample of emerging adults in France. *Psychologie Française*. https://www.sciencedirect.com/science/article/pii/S0033298422000309

Gohari, F., Qamari, H., & Sheykholeslami, A. (2025). The effectiveness of computer-based cognitive rehabilitation on the social isolation of the elderly with death anxiety living in elderly centers. *Social Psychology Research*, *14*(56), 15-32. https://www.socialpsychology.ir/article_215642_en.html

Heidari Mofard, M., Safai, A., & Iman, M. (2023). The relationship between the dark triad of personality and harmful online gaming among adolescents at the national level: The mediating role of motivation and game type. *Sports Psychology Studies*, *11*(42), 159-178. https://spsyj.ssrc.ac.ir/article_3120_en.html?lang=en

Karami, N., Amini, N., Behrouzi, M., & Jafarinia, G. (2022). The mediating role of social isolation in the relationship between brain-behavioral systems and HEXACO personality traits with distress tolerance in drug-dependent individuals. *Journal of Counseling and Psychotherapy*, *12*(47), 221-258. https://maherpub.com/jndd/article/view/449

Khadse, V. J., Dhillon, H. S., & Sasidharan, S. (2024). Psychological hardiness, personality factors and coping styles in male patients of alcohol dependence syndrome. *Medical Journal Armed Forces India*, *80*(2), 172-177. https://doi.org/10.1016/j.mjafi.2022.07.007

Lee, J., An, J., & Suh, K. (2021). The Double Mediating Effect of Social Isolation and Emotional Support on Feelings of Entrapment and Motivation for Recovery among Korean Alcoholic Inpatients. *International journal of environmental research and public health*, *18*. https://doi.org/10.3390/ijerph18094710

Liu, H., Chen, J., Peng, Q., Zhang, H., & He, Y. (2024). Hardiness personality and mental health of financially-struggling medical students in private universities in China: the intervening roles of coping styles and gender. *Frontiers in Public Health*, *12*, 1458049. https://doi.org/10.3389/fpubh.2024.1458049

Liu, N., Bao, G., & Wu, S. (2023). Social implications of Covid-19: Its impact on general trust, political trust, and trust in physicians in China. *Social Science & Medicine*, *317*, 115629. https://doi.org/10.1016/j.socscimed.2022.115629

Lu, L., Xu, J., Wei, J., Shults, F. L., & Feng, X. L. (2024). The role of emotion and social connection during the COVID-19 pandemic phase transitions: a cross-cultural comparison of China and the United States. *Humanities and Social Sciences Communications*, *11IS - 1*, 1-16. https://doi.org/10.1057/s41599-024-02744-9

Mahmodfakhe, H. (2022). Prediction of moral disengagement based on dark triad of personality and belief in a just world among the Marketers of Urmia city during Corona. *Social Psychology Research*, *12*(47), 98-114. https://www.socialpsychology.ir

Naderi Lordegani, M., & Chorami, M. (2021). The effectiveness of meta-cognitive training on quality of life and psychological hardiness of red crescent relief rescuer workers. *Positive Psychology Research*, *6*(4), 81-92. https://ppls.ui.ac.ir/article_25505.html?lang=en

Naderifar, N., Akbari, B., & Sadeghi, A. (2023). Structural Modeling of the Relationship between Spiritual Health with Addiction Tendency in Adolescents: The Mediating Role of Emotional well-being. *Journal Of Shahid Sadoughi University Of Medical Sciences*. https://doi.org/10.18502/ssu.v31i9.14187

Nooripour, R., Hosseinian, S., Farmani, F., Abtahi Foroshani, N., Ghanbari, N., Farkhojasteh, V. S., & Ilanloo, H. (2022). Relationship between hardiness and stress of COVID-19 through the mediating role of mindfulness in Iranian students. *Practice in Clinical Psychology*, *10*(3), 193-202. https://doi.org/10.32598/jpcp.10.3.288.7

Reyes, M. Q., Bautista, F. J., Soria-Miranda, N., Oleas, D., Mascialino, G., & Rodas, J. A. (2024). Family and Personal Factors Predisposing Adolescents to Addiction in High-Risk Urban Areas. https://doi.org/10.31219/osf.io/euhk4

Rezaei, S., & Vakilian, M. (2021). The mediating role of illness perception in the relationship between psychological hardiness and the health status of covid-19 (coronavirus disease) survived patients. *Health Psychology Research*, *9*(1), 24839. https://doi.org/10.52965/001c.24839ER -

Schreiber, A., & Marcus, B. (2020). The place of the "Dark Triad" in general models of personality: Some meta-analytic clarification. *Psychological BulletinVL - 146*(11), 1021. https://doi.org/10.1037/bul0000299

Szabó, Z. P., Diller, S. J., Czibor, A., Restás, P., Jonas, E., & Frey, D. (2023). "One of these things is not like the others": The associations between dark triad personality traits, work attitudes, and work-related motivation. *Personality and individual differences*, *205*, 112098. https://doi.org/10.1016/j.paid.2023.112098

Tahir, S. I., & Jan, T. (2023). Pandemic perspectives: How students navigate social relationships. *Education Mind*, *2*(2), 85-100. https://doi.org/10.58583/Pedapub.EM2308

Temane, A. A., Rikhotso, T., Poggenpoel, M., & Myburgh, C. (2023). Adolescents' lived experiences of substance abuse in the Greater Giyani Municipality. *Curationis*, *46*(1), e1-e9. https://doi.org/10.4102/curationis.v46i1.2379