

Predicting Suicidal Thoughts Through Defensive Mechanisms and Psychopathic Traits in Addicted Women

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Article Info

Article type:

Original Research

How to cite this article:

Sadeghi Nia, K., & Asmaee Majd, S. (2024). Predicting Suicidal Thoughts Through Defensive Mechanisms and Psychopathic Traits in Addicted Women. *Psychology of Woman Journal*, 5(1), 65-72.

<http://dx.doi.org/10.61838/kman.pwj.5.1.8>



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ABSTRACT

Objective: The present study aimed to predict suicidal thoughts through defensive mechanisms and psychopathic traits in addicted women.

Materials and Methods: The design of the current research was a correlational study using regression analysis. The sample included 150 addicted women from detoxification camps in Gilan Province, who were selected based on the inclusion criteria using convenience sampling. Three questionnaires were utilized in this study: the Defense Style Questionnaire (DSQ-40), the Beck Scale for Suicide Ideation (BSSI), and the Levenson Self-Report Psychopathy Scale (LSRP). The collected data were analyzed using Pearson correlation coefficients and multiple regression with SPSS-26 software.

Findings: Correlation coefficients indicate significant associations between mature defensive style and suicidal thoughts (correlation coefficient: .37), mature style (.39), neurotic (.35), primary psychopathic traits (.40), and secondary traits (.54) ($P < .01$).

Conclusion: Based on the results of this study, it is recommended that therapists and counselors working with addicted individuals pay attention to defensive mechanisms, suicidal thoughts, and psychopathic traits in addicted women, as awareness of these variables can assist in providing better and more appropriate services to these patients.

Keywords: *Defensive mechanism, suicidal thoughts, psychopathic traits, addiction.*

1. Introduction

Addiction to narcotics and stimulants is one of the most significant harms and social issues, serving both as a consequence and a cause of many other social problems and difficulties. Thus, taking action to reduce it can lead to a reduction in other social issues such as divorce, theft, etc., underscoring the importance of addressing and assisting

drug and stimulant users in quitting their use (Pirzadeh & Parsakia, 2023).

Addiction to narcotics, and recently to stimulants and synthetic substances that alter mood and behavior, represents one of the most prominent psychosocial harms that can easily destroy the individual, family, social, and cultural foundations of a society, endangering the vitality, productivity, motivation, and interests of its people, and

diverting material and spiritual resources to the service and rehabilitation of these individuals. Additionally, it indirectly leads to the loss of human resources in that society. Substance misuse and addiction is a complex disorder associated with biological, psychological, social, and spiritual causes and effects. The factors involved in the onset, continuation, and relapse in substance use disorders are diverse and include various individual, family, and social factors (Eker & Taş, 2022; Xie et al., 2023).

Most treatment programs primarily aim to reduce or stop drug use. However, addicted patients also face numerous other problems, many of which may predate the onset of substance use and may even be significant reasons for initiating drug use. Therefore, treatment programs should not only aim at reducing and stopping drug use but also consider important psychological variables related to the onset and continuation of substance use (Moeinoddini et al., 2021; Shameli et al., 2018). Among the determinants of substance use, psychological variables are of significant importance, as psychologists believe that the impact of biological and social factors must be viewed through the lens of an individual's psychological inclinations toward substance use. According to research in the field of addiction and the etiology of this disorder, defensive mechanisms are among the psychological factors that influence the inclination towards substance misuse (Einy, 2019; Einy & Narimani, 2019; Einy et al., 2019; Eisma et al., 2013; Laconi et al., 2022; Lee et al., 2020).

The term "defense," first introduced by Freud in 1975, refers to the mind's method of pushing emotions out of consciousness. It is a common knowledge among therapists that understanding the emotions of those they treat is crucial. Defenses are mental functions that generally keep some components of unpleasant feelings out of conscious awareness, which can include thoughts, feelings, or both. Typically, unpleasant feelings coupled with a thought that something terrible is happening (anxiety) or has happened (a sense of depression) create problems. Usually, understanding emotions alone is not sufficient to help people overcome their issues (Lee & Lim, 2021; Moeinoddini et al., 2021).

Additionally, research has shown that the propensity for suicide (both suicidal thoughts and attempts) significantly increases among substance users. Suicide exists on a spectrum, starting with transient suicidal thoughts and ending with successful suicide. Suicidal thoughts themselves represent a general risk for suicide. Suicidal attempts include actions taken by an individual to end their life but do not

result in death. The likelihood of suicidal thoughts and attempts is high among substance users (Ahmadi & Moeini, 2015; Azizi et al., 2023; Chai, 2022; Costanza et al., 2021).

Furthermore, research has indicated that addicts often have serious personality issues, which may be rooted in fundamental personality components. Consequently, a significant portion of addiction research focuses on the personalities of addicted individuals and their personality traits. One of the personality traits associated with addictive behaviors is psychopathy. Psychopathy (psychopathic personality) is generally conceptualized as a persistent behavioral deviation accompanied by emotional deficits and damaged social attachments. Researchers believe that the primary traits of psychopathy include a lack of conscience, self-centeredness, lack of empathy, impulsivity, excessive self-admiration, risk-taking, hostile and aggressive behaviors, and an inability to resist temptation (Azimi & Soleimani, 2020; Di Nicola et al., 2015; Hammerslag et al., 2019; Köck & Walter, 2018; Shabtari et al., 2023). Thus, the present study aimed to predict suicidal thoughts through defensive mechanisms and psychopathic traits in addicted women.

2. Methods and Materials

2.1. Study design and Participant

The design of the current study was a post-event (causal-comparative) research. The statistical population in this study included all addicted women in Gilan Province. The sample consisted of 150 women who abused substances. The inclusion criteria were an age range between 18 to 65, literacy sufficient to understand the questions or statements in the questionnaires, at least one year of drug use prior to quitting, and no specific mental illness or neurological problem (based on the clinic's records). The exclusion criteria included being older than 65 or younger than 18, illiteracy, no history of drug use for at least one year prior to quitting, and having a specific mental illness or neurological problem.

2.2. Measures

2.2.1. Suicide Ideation

The Beck Scale for Suicide Ideation is a 19-item self-report tool designed to detect and measure the severity of attitudes, behaviors, and planning towards committing suicide, developed by Beck, Kovacs, and Weissman in 1979. The scale uses a 3-point rating from 0 to 2. The total score is

calculated by summing the individual scores, which range from 0 to 38. The questions assess aspects such as the desire for death, active and passive suicidal wishes, duration and frequency of suicidal thoughts, control over oneself, deterrents to suicide, and the individual's readiness to commit suicide. If responses indicate an active or passive desire for suicide, particularly to question number 5 (I have no desire to commit suicide -0- I have some desire to commit suicide -1- I have a strong desire to commit suicide -2-), then the respondent must continue with the next 14 questions; otherwise, there is no need to proceed. Scores of 0 indicate none, 1 some, and 2 much desire. Cronbach's alpha of .90 and .85 has been reported for inpatients and outpatients, respectively, indicating high internal consistency of this scale. The validity of this scale was reviewed by Esfahani and colleagues in 2015 using Cronbach's alpha and split-half reliability, which were .83 and .85, respectively (Esfahani, 2015; Steer, 1993).

2.2.2. Psychopathy

The Levenson Self-Report Psychopathy Scale consists of 26 items designed to measure psychopathic personality traits in the general and non-institutionalized population, developed by Levenson, Kiehl, and Fitzpatrick in 1995. Each item is rated on a 4-point Likert scale (from strongly disagree = 1 to strongly agree = 4). The range of scores on the Levenson Self-Report Psychopathy Scale is from 0 to 104. The test has two subscales: primary psychopathy (F1) measuring manipulative psychological tendencies, self-centeredness, and lack of empathy and remorse, and secondary psychopathy (F2) measuring impulsivity, explosive anger, and poor behavioral control. Levenson and colleagues (1995) compared this scale with other existing scales for measuring psychopathic traits and obtained satisfactory results for convergent validity and concurrent validity. In a study by Miller and colleagues, the Cronbach's alpha for the total scale score was .83, .81 for the F1 subscale, and .61 for the F2 subscale (Levenson, 1995). In another study by Masuwa and Namori (2011), Cronbach's alpha was reported as .74 for the overall scale score, and .70 and .58 for the primary and secondary psychopathy subscales, respectively. For reliability, Biglari and Nategh (2009) calculated the overall reliability of the scale using the test-retest method, resulting in a .80, indicating acceptable reliability of this scale. Research has shown that this criterion is sufficiently reliable, with a Cronbach's alpha

ranging from .63 to .82 for the two subscales (Basharpour & Ahmadi, 2020; Basharpour et al., 2021).

2.2.3. Defensive Style

This questionnaire was developed by Andrews, Singh, and Bond in 1993 and includes 40 items rated on a 9-point Likert scale (from strongly agree to strongly disagree), assessing 20 defense mechanisms across three levels: mature, neurotic, and immature. In this questionnaire, an individual rates each question on a 9-point scale. Scores for each defense mechanism range from 2 to 18, with scores above 10 indicating the use of that mechanism. Average scores are calculated for each style, and compared with other styles to determine the predominant defense style of the individual. Andrews and colleagues (1993) reported test-retest reliability coefficients for this questionnaire ranging from .46 to .86, and Cronbach's alpha for mature, neurotic, and immature styles were .68, .58, and .80, respectively. The Defensive Style Questionnaire was also reviewed and standardized in Iran by Heidarinasab (2006). The standardization process, after translating the questionnaire into Persian and refining its literary aspects, followed through with tests for content validity, concurrent validity, and construct validity, confirming that this questionnaire maintains satisfactory validity like its original version (Heidarinasab & Shaeiri, 2011). Besharat, Sharifi, and Irvani (2001) estimated the Cronbach's alpha for the Persian form's mature, immature, and neurotic styles as .75, .73, and .74, respectively, and the test-retest reliability over four weeks as .82 (Besharat, 2008; Besharat et al., 2019).

2.3. Data Analysis

To analyze the data in this study, after collecting data using the questionnaire, SPSS-24 software and descriptive statistical methods such as frequency calculation, mean, standard deviation, and inferential statistics like multivariate and univariate analysis of covariance, assumptions of linearity, multicollinearity, homogeneity of variances, homogeneity of covariances, homogeneity of regression slopes, and normal distribution of variables were used. A significance level of 0.05 was considered for testing hypotheses.

3. Findings and Results

Table 1 presents the means and standard deviations of the research variables.

Table 1

Mean and Standard Deviation of Research Variables

Variable	N	Mean	Standard Deviation
Total Suicide Ideation Score	56	5.161	6.441
Primary Psychopathy	56	41.214	5.28
Secondary Psychopathy	56	26.661	3.533
Total Psychopathy Score	56	67.857	7.406
Immature Defensive Style	56	10.76	2.811
Mature Defensive Style	56	12.004	2.61
Neurotic Defensive Style	56	13.205	3.134

As the correlation coefficients indicate (Table 2), there are significant correlations between mature defensive style and suicidal thoughts (correlation coefficient: .37), mature style (.39), neurotic (.35), primary psychopathic traits (.40), and secondary traits (.54) ($p < .01$). The identification of outliers in regression is examined through standardized

residuals; since the standardized residuals are within the range of -2.07 to 2.07, there are no influential outliers. The homoscedasticity and independence of residuals (errors) are checked through the Durbin-Watson statistic, Cook's distance, and scatter plots. Thus, (150) subjects were analyzed.

Table 2

Correlation Coefficients of Suicidal Thoughts with Defensive Styles and Psychopathic Traits

	1	2	3	4	5	6
1. Immature Defensive Style	1					
2. Mature Defensive Style	.51**	1				
3. Neurotic Defensive Style	.67**	.29**	1			
4. Primary Psychopathic Traits	.34**	.37**	.25**	1		
5. Secondary Psychopathic Traits	.27**	.31**	.32**	.31**	1	
6. Suicidal Thoughts	.37**	.39**	.35**	.40**	.54**	1

** $p < .01$; * $p < .05$

In regression, particularly when the behavior of the dependent variable is studied over a time period, we may encounter the problem of errors not being independent, referred to as autocorrelation in the data. If there is autocorrelation in the errors, linear regression cannot be used. Generally, the Durbin-Watson statistic value ranges from 0 to 2. If there is no serial correlation among residuals, this statistic should be close to 2. Overall, if this statistic

ranges from 2- to 2+, the use of linear regression is permissible. Based on the above chart, which indicates a nonlinear relationship between the residual data and the obtained Durbin-Watson statistic ($D-W = 1.75$) and Cook's distance (.01), the independence of residuals (errors) and homoscedasticity are confirmed, allowing for the use of regression.

Table 3

Results of Linearity Tests of the Relationship Between Suicidal Thoughts, Defensive Styles, and Psychopathic Traits

Relationship	F for Linearity	Significance Level	F for Deviation from Linearity	Significance Level
1. Immature Defensive Style	14.567	.0001	1.371	.092
2. Mature Defensive Style	16.761	.0001	1.311	.096
3. Neurotic Defensive Style	15.43	.0001	1.543	.081
4. Primary Psychopathic Traits	13.34	.0001	1.342	.071
5. Secondary Psychopathic Traits	12.18	.0001	1.890	.056

According to Table 3, the F-statistic for deviation from linearity for the relationship between suicidal thoughts and defensive styles and psychopathic traits is not significant.

However, the F-statistic for linearity for this relationship is significant. Therefore, it can be concluded that the

relationship between suicidal thoughts and defensive styles and psychopathic traits is linear.

Table 4

Summary of Regression Model, Analysis of Variance, and Statistical Characteristics of Regression of Suicidal Thoughts with Defensive Styles and Psychopathic Traits

Step	Model	Sum of Squares	Degrees of Freedom	Mean Squares	F Statistic	p-value	R	R ²	ΔR ²
1	Regression	4925.60	1	4925.60	20.71	.000	.997	.594	.915
	Residual	29.81	111	246					
2	Regression	4932.10	2	4932.10	13.36	.000	.998	.692	.816
	Residual	18.32	110	0.183					
3	Regression	32.43	3	32.43	7.54	.000	.654	.749	.541
	Residual	73.78	109	4.34					
4	Regression	43.56	4	43.56	8.45	.000	.419	.532	.435
	Residual	451.19	108	4.123					
5	Regression	453.28	5	453.28	10.12	.000	.408	.605	.414
	Residual	2.298	107	3.198					

Step 1: Predictor variable: Immature Defensive Style
 Step 2: Predictor variable: Mature Defensive Style
 Step 3: Predictor variable: Neurotic Defensive Styles
 Step 4: Predictor variable: Primary Psychopathic Traits
 Step 5: Predictor variable: Secondary Psychopathic Traits

Based on the results shown in Table 4, it can be concluded that the predictor variables explain 99.0% (R² = .990) of the variance of the criterion variable, which means that the predictor variables explain 99% of the score changes in suicidal thoughts. Immature defensive styles explain 91%, mature defensive styles 81%, neurotic defensive styles 54%,

primary psychopathic traits 43.0%, and secondary psychopathic traits 41.0% of the changes in suicidal thoughts. The observed F values for the predictor variables are significant at the .001 level. This finding indicates that these five variables significantly predict suicidal thoughts.

Table 5

Stepwise Regression Coefficients for Suicidal Thoughts on Predictor Variables

Variable	B	Standard Error b	β	t	Significance
Constant (a)	0.067	0.340		0.197	.844
1 - Immature Defensive Style	0.187	0.025	.560	7.60	.000
2 - Mature Defensive Style	0.440	0.074	.439	-3.95	.000
3 - Neurotic Defensive Style	0.564	0.342	.651	4.65	.000
4 - Primary Psychopathic Traits	0.419	0.480	.721	5.39	.000
5 - Secondary Psychopathic Traits	0.375	0.297	.409	3.49	.000

According to Table 5, the relationship between suicidal thoughts and immature defensive style (β = .560) is significant, with a t-statistic of 7.60, indicating a significant positive relationship at the .001 level. The relationship between suicidal thoughts and mature defensive styles (β = .439) is also significant, with a negative t-statistic of -3.95 at the .001 level. The relationship between neurotic defensive styles and suicidal thoughts (β = .651) is positive and significant with a t-statistic of 4.65 at the .001 level. The relationships of primary psychopathic traits (β = .721) and secondary psychopathic traits (β = .409) with defensive

styles both show significant positive correlations, with t-statistics of 5.39 and 3.49, respectively, significant at the .001 level.

4. Discussion and Conclusion

The current research aimed to predict suicidal thoughts through defensive mechanisms and psychopathic traits in addicted women. The findings of this study are consistent with prior findings (Ahmadi & Moeini, 2015; Azizi et al., 2023; Chai, 2022; Costanza et al., 2021; Lee et al., 2020; Riyahi, 2018; Xie et al., 2023).

Regarding the etiology of suicide in women, Hirschi's social control theory can be mentioned. According to this theory, suicide among women is a sign of a weak bond between the individual and society and family. In other words, women who have less attachment to relatives, family, and social norms usually do not consider the negative consequences of their actions on their close ones. These individuals have very limited social interactions and relationships with friends and relatives. On the other hand, when an individual contemplates and commits suicide, they have undoubtedly been unsuccessful in achieving their social goals or have not made significant investments to reach their positions; because if such investments had been made, the individual would not risk their position by committing suicide (Azizi et al., 2023).

Furthermore, the reasons for gender differences in suicide can be explored in social expectations and differences in gender roles. For example, in the case of the high rate of suicide attempts among Iranian men, the sociology of emotion approach can be referenced. This theory considers emotion a cultural and social matter, such that cultural patterns impact the people of a society, and individuals develop those emotions that they believe should be expressed in society. Therefore, it seems that Iranian cultural ideologies related to the male gender role, such as being strong and stereotypical gender perceptions regarding the emotional nature of women, influence men's experiences, leading them to less frequently express their problems and emotions. Therefore, in stressful situations, the likelihood of suicide in men increases (Chai, 2022; Costanza et al., 2021). Women with psychopathic traits might resort to different methods than men to achieve similar goals, as women generally have less physical strength and hence, unlike men, are less likely to achieve their desired goals through the use of force. Consequently, women might resort to deception, manipulation, or withdrawal (or using weapons) to achieve similar ends. Physical aggression in psychopathic women is less prevalent than in psychopathic men but might actually manifest primarily in domestic environments and towards their close relations (Ahmadi & Moeini, 2015; Riyahi, 2018).

These findings could indicate different etiologies in men and women for psychopathy or point to gender differences in the prevalence of primary psychopathy, where men more frequently display primary psychopathy, while women are often more secondary psychopathic. Women's antisocial behavior is also likely to include relational aggression that occurs at home or against family, friends, or acquaintances

rather than strangers, thus reducing the likelihood of their antisocial behaviors being recognized by law enforcement and the judicial system. Additionally, drug use might play a more significant role in the incarceration rates of women; to the extent that involvement in the criminal system leads to higher scores on measures of psychopathic traits, particularly secondary psychopathy. Drug use might show a stronger correlation with psychopathic traits in women (Schulz, 2016).

Women are generally expected to be more nurturing, agreeable, and socially constrained, while socially unacceptable, aggressive, or risk-taking behaviors in men are more socially accepted. Therefore, women who exhibit psychopathic traits are considered more deviant and aberrant compared to men based on gender role expectations. This gender difference in the social acceptability of psychopathic traits may lead to different levels of risk for substance use in women compared to men with high levels of psychopathy. In other words, since drug use by women is considered more of a deviation from gender norms than in men, there is a possibility that drug use is more strongly associated with psychopathic traits in women (Schulz, 2016). It should also be noted that typically only the most serious female offenders end up in prison. In fact, the reconstruction of traditional male roles plays a more clichéd role and exhibits a greater sense of empowerment (Sellbom, 2017).

It is also possible that behaviors exhibited by women with psychopathic traits may not be adequately captured in current scales that are fundamentally based on men, or the item content of existing measures of psychopathy may not effectively describe the type of aggression typically shown by women. According to Hare (1991), psychopathy in men and women, like developmental differences in cognition, may manifest differently (Schulz, 2016; Sellbom, 2017).

5. Limitations and Suggestions

The sincerity of respondents in research questionnaires was not controlled. This means that the data for this study were collected using self-report questionnaires. Therefore, subjects might have underestimated or overestimated their characteristics on the relevant scale or might have desired to present socially desirable responses, which could have affected the findings. Given the limited number of women's drug rehabilitation camps in Gilan Province and consequently the limited number of samples of substance-using women, as well as the fact that the sample was selected conveniently, generalization of the results to other provinces

should be done cautiously and accompanied by replication of the research on the target population. Since the method of the present study was causal-comparative, and in this method, we infer the cause from the effect, therefore, a precise explanation of the causal relationship cannot be given. It is recommended that future research use clinical interviews in addition to self-report questionnaires to collect more accurate data. It is advised that the research be repeated on larger samples. This research was conducted at the level of drug rehabilitation camps in Gilan Province, it is suggested that future research be conducted on addicts in drug rehabilitation clinics, addicts who have not yet quit substance use, and also on individuals who have been fully treated for addiction. It is recommended that subsequent researchers control some intervening variables such as the family, economic, and social status of substance users. Given the declining age of addiction in the country, it is recommended that the Ministry of Education prepare comprehensive educational programs for students from an early age regarding various aspects of addiction so that children and adolescents can gain the necessary awareness to recognize drugs more comprehensively and scientifically. It is suggested that individuals who may have psychopathic traits from adolescence be referred for accurate identification and then treatment to prevent the possibility of their addiction and criminality in the future.

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.

Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

Declaration of Interest

The authors report no conflict of interest.

Funding

According to the authors, this article has no financial support.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. This article is derived from the first author's master's thesis at Lahijan branch, Islamic Azad University, Lahijan, Iran. It has received ethical approval with the identifier IR.IAU.LIAU.REC.1401.017 from the Ethics Committee of Islamic Azad University, Lahijan branch

References

- Ahmadi, H., & Moeini, M. (2015). An Investigation of the Relationship between Social Skills and High Risk Behaviors among the Youth: the Case of Shiraz City. *Strategic Research on Social Problems in Iran*, 4(1), 1-24. https://ssoss.ui.ac.ir/article_17124_81b47fe0213cd900d0432b7e1106dfc8.pdf
- Azimi, H., & Soleimani, E. (2020). The Comparison of Psychological Distress, Impulsivity, and Type D Personality between Students with Positive and Negative Attitudes toward Addiction. *etiadpajohi*, 14(57), 151-170. <https://doi.org/10.29252/etiadpajohi.14.57.151>
- Azizi, F., Mohseni, R., & Hazrati Someeh, Z. (2023). Sociological study of the effect of informal settlements on social harms (Case Study: Kermanshah city). *Journal of Adolescent and Youth Psychological Studies (JAYPS)*, 4(8), 132-138. <https://doi.org/10.61838/kman.jayps.4.8.15>
- Basharpour, S., & Ahmadi, S. (2020). Predicting the tendency towards high-risk behaviors based on moral disengagement with the mediating role of difficulties in emotion regulation: A Structural Equation Modeling. *Journal of Research in Psychopathology*, 1(1), 32-39. <https://doi.org/10.22098/jrp.2020.1030>
- Basharpour, S., Farivar, M., & Ebadi, M. (2021). The causal modeling of affective divorce in women based on dark personality traits: with mediating role of sexual self esteem. *Journal of Woman and Family Studies*, 9(1), 37-58. <https://doi.org/10.22051/jwfs.2021.31290.2414>
- Besharat, M. (2008). Relation of alexithymia with ego defense styles. *Journal of Fundamentals of Mental Health*, 10(3), 181. <https://www.magiran.com/paper/593922>
- Besharat, M. A., Ranjbar Shirazi, F., & Dehghani Arani, F. (2019). The mediating role of early maladaptive schemas on the relationship between attachment styles and defense mechanisms [Research]. *Journal of Psychological Science*, 17(72), 859-872. <http://psychologicalscience.ir/article-1-324-en.html>
- Chai, Y., Luo, Hao, Wei, Yue, Chan, Sherry K. W., Man, Kenneth K. C., Yip, Paul S. F., Wong, Ian C. K., Chan, Esther W. (2022). Risk of self-harm or suicide associated with specific drug use disorders, 2004–2016: a population-based cohort study. *Addiction*, 117(7), 1940-1949. <https://doi.org/10.1111/add.15820>

- Costanza, A., Rothen, S., Achab, S., Thorens, G., Baertschi, M., Weber, K., Canuto, A., Richard-Lepouriel, H., Perroud, N., & Zullino, D. (2021). Impulsivity and Impulsivity-Related Endophenotypes in Suicidal Patients with Substance Use Disorders: an Exploratory Study. *International journal of mental health and addiction*, 19(5), 1729-1744. <https://doi.org/10.1007/s11469-020-00259-3>
- Di Nicola, M., Tedeschi, D., De Risio, L., Pettorosso, M., Martinotti, G., Ruggeri, F., Swierkosz-Lenart, K., Guglielmo, R., Callea, A., Ruggeri, G., Pozzi, G., Di Giannantonio, M., & Janiri, L. (2015). Co-occurrence of alcohol use disorder and behavioral addictions: relevance of impulsivity and craving. *Drug and Alcohol Dependence*, 148, 118-125. <https://doi.org/10.1016/j.drugalcdep.2014.12.028>
- Einy, S. (2019). Comparing the effectiveness of mentalization-based therapy and cognitive-analytic therapy on ego strength and defense mechanisms in people with Borderline Personality Disorder. *Internal Medicine Today*, 25(4), 324-339. <https://doi.org/10.32598/hms.25.4.324>
- Einy, S., & Narimani, M. (2019). Effectiveness of Mentalization based Therapy on Ego-Strength and Defense Mechanisms in People with Borderline Personality Disorder [Research --- Open Access, CC-BY-NC]. *The Neuroscience Journal of Shefaye Khatam*, 7(3), 1-12. <https://doi.org/10.29252/shefa.7.3.1>
- Einy, S., Narimani, M., & Sadeghi Movahhed, F. (2019). Comparing the Effectiveness of Mentalization-Based Therapy and Cognitive-Analytic Therapy on Ego Strength and Defense Mechanisms in People With Borderline Personality Disorder [Original]. *Internal Medicine Today*, 25(4), 324-339. <https://doi.org/10.32598/hms.25.4.324>
- Eisma, M. C., Stroebe, M. S., Schut, H. A. W., Stroebe, W., Boelen, P. A., & van den Bout, J. (2013). Avoidance processes mediate the relationship between rumination and symptoms of complicated grief and depression following loss. *Journal of abnormal psychology*, 122(4), 961-970. <https://doi.org/10.1037/a0034051>
- Eker, H., & Taş, İ. (2022). The Relationship Between Game Addiction, Emotional Autonomy and Emotion Regulation in Adolescents: A Multiple Mediation Model. *International Journal of Technology in Education and Science*. <https://doi.org/10.46328/ijtes.390>
- Esfahani, M., Hashemi, Y., Alavi, K. (2015). Psychometric assessment of beck scale for suicidal ideation (BSSI) in general population in Tehran. *Med J Islam Repub Iran*, 29(no), 268. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4715388/>
- Hammerslag, L. R., Belagodu, A. P., Aladesuyi Arogundade, O. A., Karountzos, A. G., Guo, Q., Galvez, R., Roberts, B. W., & Gulley, J. M. (2019). Adolescent impulsivity as a sex-dependent and subtype-dependent predictor of impulsivity, alcohol drinking and dopamine D2 receptor expression in adult rats. *Addiction Biology*, 24(2), 193-205. <https://doi.org/10.1111/adb.12586>
- Heidarinasab, L., & Shaeiri, M. (2011). Factorial Structure of the Defense Style Questionnaire (DSQ-40). *Journal of Modern Psychological Researches*, 6(21), 77-97. https://psychologyj.tabrizu.ac.ir/article_4170_d733072729b20338f46db430a0286cfb.pdf
- Köck, P., & Walter, M. (2018). Personality disorder and substance use disorder – An update. *Mental Health & Prevention*, 12, 82-89. <https://doi.org/10.1016/j.mhp.2018.10.003>
- Laconi, S., Kalaitzaki, A., Spritzer, D. T., Hauck, S., Gnisci, A., Sergi, I., Vally, Z., Tudorel, O., Vintila, M., Malik, S., Ramos-Diaz, J., Männikkö, N., Cikrikci, O., Salas, G., Ardila, R., Zambrano, D., Lopez-Calle, C., & Sahlan, R. N. (2022). A Cross-cultural exploration of problematic Internet use, pathological personality traits, defense mechanisms, coping strategies, and self-esteem in 14 countries. *Annales Médico-psychologiques, revue psychiatrique*. <https://doi.org/10.1016/j.amp.2022.09.008>
- Lee, S. L., & Lim, S. X. (2021). *Predicting internet addiction with the dark triad: Beyond the five-factor model*
- Lee, Y.-J., Keum, M.-S., Kim, H.-G., Cheon, E. J., Cho, Y.-C., & Koo, B.-H. (2020). Defense Mechanisms and Psychological Characteristics According to Suicide Attempts in Patients With Borderline Personality Disorder. *Psychiatry Investigation*. <https://doi.org/10.30773/pi.2020.0102>
- Levenson, M. R., Kiehl, Kent A, Fitzpatrick, Cory M. (1995). Assessing psychopathic attributes in a noninstitutionalized population. *Journal of personality and social psychology*, 68(1), 151. <https://doi.org/10.1037/0022-3514.68.1.151>
- Moeinoddini, M., Lotfi Kashani, F., & Shafieabadi, A. (2021). Comparison of the Efficacy of dialectical behavior therapy with integrated therapy based on emotional adjustment and adolescents defense echanisms in reducing pathological of the Internet and mobile. *Scientific Journal of Social Psychology*, 8(57), 25-39. https://psychology.ahvaz.iau.ir/article_680040.html?lang=en
- Pirzadeh, S., & Parsakia, K. (2023). A Comparative Study of Family Structure (Cohesion and Flexibility) and Functioning in People with and without Drug Abuse. *International Journal of Body, Mind & Culture*, 10(1), 82-89. <https://doi.org/10.22122/ijbmc.v10i1.278>
- Riyahi, M. E., Mahmudabadi, Zeynab. (2018). Sociological Study of the Effects of Gender Roles on Depression via Self Silencing. *Journal of Applied Sociology*, 29(1), 129-146. <https://doi.org/10.22108/jas.2018.75238.0>
- Schulz, N., Murphy, Brett, Verona, Edelyn. (2016). Gender differences in psychopathy links to drug use. *Law and Human Behavior*, 40(2), 159. <https://doi.org/10.1037/lhb0000165>
- Sellbom, M., Donnelly, Kylie M, Rock, Rachel C, Phillips, Tasha R, Ben-Porath, Yossef S. (2017). Examining gender as moderating the association between psychopathy and substance abuse. *Psychology, Crime & Law*, 23(4), 376-390. <https://doi.org/10.1080/1068316X.2016.1258466>
- Shabtari, F., Hajjalizadeh, K., & Hajmohammadi, Z. (2023). Investigating the Relationship between Behavioral Activation and Inhibition Systems (BIS/BAS) and Effortful Control (EC) with Clinical Symptoms and Personality Disorders in Patients with Substance Abuse Disorders. *Journal of Assessment and Research in Applied Counseling (JARAC)*, 5(1), 96-103. <https://doi.org/10.61838/kman.jarac.5.1.13>
- Shameli, M., Moatamedi, A., & Borjali, A. (2018). The effectiveness of cognitive therapy based on mindfulness of internet game addiction intermediary variables with self-control and sensation seeking, in boy adolescents in the city of Tehran. *Counseling Culture and Psychotherapy*, 9(33), 137-161. <https://doi.org/10.22054/qccpc.2018.25865.1635>
- Steer, R. A., Kumar, Geetha, Beck, Aaron T. (1993). Self-reported suicidal ideation in adolescent psychiatric inpatients. *Journal of consulting and clinical psychology*, 61(6), 1096. <https://doi.org/10.1037/0022-006X.61.6.1096>
- Xie, Y., Yang, Q., & Lei, F. (2023). The Relationship of Internet Gaming Addiction and Suicidal Ideation Among Adolescents: The Mediating Role of Negative Emotion and the Moderating Role of Hope. *International journal of environmental research and public health*. <https://doi.org/10.3390/ijerph20043375>