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Comparison of Dark Personality Traits, Self-Compassion, Mindfulness, and Ego Strength in Depressed and Obsessive-Compulsive Patients

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ABSTRACT

Objective: This study aimed to compare dark personality traits, self-compassion, mindfulness, and ego strength in patients with depression and obsessive-compulsive disorder.

Methods and Materials: The research design was a causal-comparative method. The statistical population of this study included all individuals with a confirmed psychiatric and clinical diagnosis of obsessive-compulsive disorder and major depressive disorder in the province of Qom. The sample consisted of 80 individuals with obsessive-compulsive disorder and depression, selected using purposive sampling. The instruments used in this study included the Beck Depression Inventory, the Revised Obsessive-Compulsive Questionnaire, the Dark Triad Personality Questionnaire, the Self-Compassion Scale, the Mindfulness Questionnaire, and the Psychological Ego Strength Questionnaire. To analyze the findings, univariate and multivariate analysis of variance tests were used, and data analysis was conducted using SPSS.22 software.

Findings: The findings indicated that the mean score of dark personality traits in the obsessive-compulsive group was higher than in the depression group. Additionally, self-compassion, mindfulness, and ego strength were higher in the obsessive-compulsive group compared to the depression group (p < 0.01).

Conclusion: The study reveals significant differences between individuals with obsessive-compulsive disorder and major depressive disorder in dark personality traits, self-compassion, mindfulness, and ego strength. These findings suggest that these psychological traits play a crucial role in the manifestation and severity of these disorders.

Keywords: Depression, Mindfulness, Self-Compassion, Dark Personality Traits, Ego Strength, Obsessive-Compulsive.



1. Introduction

In today's world, individuals face challenges such as incurable diseases, war, poverty, unemployment, and life pressures (Fried et al., 2022). Depressive and obsessive-compulsive disorders cause significant distress to affected individuals and their families across various social, occupational, and familial contexts. Among these, psychological issues represent one of the major risks in the contemporary era (Tzenios et al., 2023). The description and diagnosis of depressive and obsessive-compulsive disorders are valuable guides for treatment and research due to the substantial costs they impose on individuals and society. Depression is recognized as the third most common mental disorder, while obsessive-compulsive disorder (OCD) is the fourth most common mental disorder (Chen et al., 2020).

Seligman believes that one of the key factors in the development of depression is learned helplessness, which emphasizes how an individual's thinking about activities and their outcomes plays a crucial role. Depression is characterized by feelings of sadness, discouragement, hopelessness, or anhedonia, lasting most of the day and in various situations for at least two weeks (Herrman et al., 2022).

Obsessive-compulsive disorder, on the other hand, is a chronic condition marked by excessive and distressing preoccupation with orderliness, details, and perfectionism. Individuals engage in specific, often repetitive behaviors to achieve a sense of relief. OCD is characterized by obsessions, which are intrusive and unwanted thoughts, images, or urges, and compulsions, which are the actions taken to alleviate the anxiety caused by these obsessions. The anxiety may remain unchanged or even increase (Rasmussen & Parnas, 2022).

One factor that seems to differ between individuals with depression and OCD is dark personality traits (Hartung et al., 2022). Dark personality traits encompass various attributes of clinical significance, including Machiavellianism, narcissism, and antisocial behavior (Szabó et al., 2021). These traits cluster together conceptually due to shared characteristics such as social undesirability, duplicity, lack of empathy, aggression, egocentrism, and deceitfulness (Borgholthaus et al., 2023). Narcissism is distinct from the more negative traits of Machiavellianism and antisocial behavior and is considered the "bright" side of the dark triad (Peixoto et al., 2023).

It has been established that individuals with high levels of Machiavellianism and antisocial behavior tend to lead more stressful and anxious lives, whereas those with higher levels of narcissism are more satisfied with life and more optimistic about the future (Turan et al., 2023). Machiavellians are described as money-driven, ambitious, competitive, and self-serving, with little regard for others' rights (Pavlović & Franc, 2023). Antisocial behavior includes negative and norm-breaking characteristics, such as aggression, lack of remorse, selfish behavior, psychological distress, and harm to others (Kapoor et al., 2021). Individuals displaying antisocial behaviors often seek power and use violence, striving to harm others (Weltens et al., 2021). Conversely, narcissistic individuals exhibit high self-esteem, pride, and egocentrism, always seeking to be the center of attention and to receive admiration for their physical and psychological traits (Fritz et al., 2023).

Another factor that seems to differ between individuals with depression and OCD is self-compassion. Selfcompassion entails treating oneself with warmth and care during stressful situations (Neff & Germer, 2022; Neff, 2023; Neff et al., 2020). It enables individuals to manage destructive habits that increase stress while practicing acceptance and compassionate understanding, helping them to overcome suffering with mindfulness and love, avoiding harsh self-criticism (Muris & Otgaar, 2023). Selfcompassion is defined as a conscious way of coping with pain and suffering by showing kindness, care, and concern for oneself (Neff & Germer, 2022). Compassionate individuals experience less isolation and self-criticism and are less likely to be emotionally overwhelmed by adversity (Phillips & Hine, 2021), which results in fewer health problems. Evidence suggests that self-compassion is positively correlated with various psychological health indicators and negatively correlated with psychopathology (Liao et al., 2021). Self-compassion is a significant predictor of the improvement of depressive and obsessive-compulsive symptoms and plays a role in reducing anxiety and depression. In response to stressful situations, selfcompassion acts as a protective factor against anxiety (Dodson & Heng, 2022). Additionally, self-compassion facilitates a range of important health behaviors and healthpromoting behavior indices (Wakelin et al., 2022). Selfcompassion influences physical health and symptoms. A meta-analysis revealed that self-compassion is consistently and positively associated with the regular practice of various health-promoting behaviors such as regular exercise, healthy eating, healthy sleep behaviors, and stress management (Neff et al., 2020). Conversano et al. (2020) also showed that



self-compassion indirectly affects anxiety, depression, and OCD through perceived stress (Conversano et al., 2020).

Mindfulness is another concept that influences the mental and physical health of individuals with depression and OCD. Mindfulness is a specific way of paying attention, purposefully, moment by moment, without judgment, whereby individuals become aware of their negative thoughts, such as self-criticism, rumination, fear, and worry, and thus prevent the occurrence of destructive reactions that result from these thoughts (Ryan et al., 2021). Mindfulness enables individuals to improve their awareness and recognize the symptoms of stress (Sulosaari et al., 2022). Research indicates that high mindfulness may increase awareness of low-level stress symptoms, which in turn increases access to coping resources and helps reduce the negative effects of stress (Sharma & Kumra, 2022). Therefore, perceived stress can affect mindfulness (Britton et al., 2021). Moreover, the ability to observe has been suggested as a protective factor against stress in reducing depression. Mindfulness plays a role in mental health (anxiety and depression). Higher levels of mindfulness can also promote physical health through its association with health behaviors, leading to improved physical health (Sezer et al., 2022).

To date, various psychological studies have examined and explained depression and OCD, but a significant portion of this research has focused on cognitive and behavioral approaches. In contrast, despite being one of the first perspectives to examine depression and OCD, the psychodynamic approach is faced with a noticeable gap in the scientific and empirical examination of factors considered in this perspective. Ego strength can be viewed as an indicator of psychosocial health at each developmental stage (Toprak et al., 2022), referring to the extent to which individuals perceive themselves and others as part of a complex and integrated whole, as opposed to a simplistic view (Edinger, 2017). Individuals with high ego strength strive for self-actualization, embrace intrapsychic differences, accept conflicts, and reject conformity. Research shows that ego strength helps individuals maintain emotional stability and cope with internal and external stressors (Loewenberg, 2014). Given the aforementioned points, the aim of the present study is to determine the differences in dark personality traits, self-compassion, mindfulness, and ego strength among individuals with obsessive-compulsive disorder and depression.

2. Methods and Materials

2.1. Study Design and Participants

The present research utilized a causal-comparative design. The statistical population consisted of all individuals with a confirmed psychiatric and clinical diagnosis of obsessive-compulsive disorder and major depression who sought outpatient or inpatient treatment at counseling centers, psychiatric clinics, and hospitals in Qom Province in 2023. The research sample included 80 individuals with obsessive-compulsive disorder and major depression. According to Delavar's (2012) view, the minimum sample size for each group in causal-comparative research should be 30 individuals. In this study, using G*Power software and considering the number of variables under examination, an effect size of 1, a test power of 0.8, and a confidence level of 0.95% were estimated, resulting in 40 individuals per group (40 individuals in the OCD group and 40 individuals in the major depression group), totaling 80 individuals. Purposive sampling was used in this study. Inclusion criteria included an age range of 20 to 50 years, informed consent to participate in the research, sufficient time to participate in the study, completion of the questionnaires, no severe mental problems, and at least a middle school education. Exclusion criteria included having other psychiatric disorders, substance abuse, incomplete questionnaires, and failure to answer all questionnaire items.

After obtaining the necessary approvals to access the desired clinical sample, purposive sampling was used to select individuals who had been diagnosed with OCD or major depression through clinical interviews by a psychiatrist at a center or hospital. Participants were given explanations to build trust and gain their consent, after which they completed the informed consent form and were included in the study. They then completed the other questionnaires, and finally, their cooperation was appreciated and thanked. Before starting the work, the necessary approvals for conducting the study were obtained from the university's ethics committee and the research environment's authorities. Participants were provided with written information about the study, assured of the confidentiality of the information obtained, and informed that the data would only be used for research purposes. Participation was voluntary, and participants' names were not recorded to protect their privacy, with written consent obtained from all participants.



2.2. Measures

2.2.1. Depression

The Beck Depression Inventory was designed and developed by Beck to measure the severity of depression in adults diagnosed with depressive disorder. This inventory contains 21 items and is rated on a four-point Likert scale with items such as "I feel hopeless about the future and believe things will only get worse," to assess depression. The inventory is self-rated by the patient. In this study, depression is defined as the score respondents give to the 21 items in the Beck Depression Inventory. The Cronbach's alpha coefficient calculated in Taheri Tenjani's (2014) study for this inventory was above 0.7 (Tayebmanesh & Saadati, 2023). The reliability of this inventory in this study was reported as 0.79 using Cronbach's alpha.

2.2.2. Obsessive-Compulsive Symptoms

This inventory was developed by Hodgson and Rachman (1977) to investigate the type and scope of obsessive problems. It is quick and easy to administer, consisting of 30 items with true or false responses (Hodgson & Rachman, 1977; Rachman & Hodgson, 1980). The inventory comprises 30 items, half of which have true keys and the other half false keys. The initial validation at Maudsley Hospital effectively differentiated 50 obsessive patients from 50 neurotic patients. Subsequent content analysis of responses from 100 patients identified four major components reflecting four types of obsessive problems in patients: checking, cleanliness, slowness, and obsessive doubt. There was also a fifth component, which could be called rumination, but this component only weighed on two items. Thus, four subscales were formed based on the analysis mentioned above. Using a simple scoring method, an overall obsessive-compulsive score and four subscale scores can be obtained. The reliability and validity of the Maudsley Obsessive-Compulsive Inventory have been confirmed in studies conducted on clinical samples in various countries. For example, Sanavio found a correlation of 0.70 between the total scores of the Maudsley Inventory and the Padua Inventory. The test-retest reliability coefficient was high (0.89) (Rachman & Hodgson, 1980). In two studies conducted in Iran, the mean scores for obsessive patients were 15.75 (SD = 5.63) and 14.67 (SD = 5.76)(Zabet et al., 2021). The reliability of this inventory in this study was reported as 0.77 using Cronbach's alpha.

2.2.3. Dark Triad Personality

The Dark Triad Personality Questionnaire was developed by Johnson and Webster (2010) in 12 items in a self-report format to measure the three dark personality traits: Machiavellianism, psychopathy, and narcissism. The questionnaire is rated on a Likert scale from 1 (strongly disagree) to 7 (strongly agree). The dark traits measured are Machiavellianism, psychopathy, and narcissism. Hajloo et al. (2016) conducted a preliminary examination of the psychometric properties of the Dark Triad Personality Questionnaire. Their findings showed that the Cronbach's alpha coefficient for the Machiavellianism, antisocial, and narcissistic components were 0.74, 0.63, and 0.83, respectively, with the correlation between the total score and each item ranging from 0.42 to 0.90. Internal consistency was examined using Cronbach's alpha method, inter-rater agreement, test-retest reliability, and item-total correlation, showing that this scale has good reliability. The content and construct validity assessments indicated that this questionnaire has acceptable validity. Factor analysis revealed three correlated but distinct factors, as in the original form: Machiavellianism, antisocial behavior, and narcissism (Sadeghkhani et al., 2023; Salman Nasab et al., 2024). The reliability of this inventory in this study was reported as ranging from 0.78 to 0.79 using Cronbach's alpha.

2.2.4. Self-Compassion

The Self-Compassion Scale was developed by Neff et al. in 2003 and consists of 26 items and six components: selfkindness, self-judgment, common humanity, isolation, mindfulness, and over-identification. It is rated on a fivepoint Likert scale from 1 (strongly disagree) to 5 (strongly agree). Items 1, 2, 4, 6, 8, 11, 13, 16, 18, 20, 21, 24, and 25 are reverse scored. In Khosravi et al.'s (2013) study, the Cronbach's alpha coefficient for the total score of the scale was 0.76. The Cronbach's alpha coefficients for the subscales were 0.81, 0.79, 0.84, 0.85, 0.80, and 0.83 for selfkindness, self-judgment, common humanity, isolation, mindfulness, and over-identification, respectively. The validity of the questionnaire was reported as acceptable (Omidi et al., 2024). The reliability of this scale in this study was reported as ranging from 0.77 to 0.79 using Cronbach's alpha.



2.2.5. Mindfulness

The Mindfulness Attention Awareness Scale (MAAS) was developed by Brown and Ryan in 2003 and consists of 15 items to measure mindfulness. It is rated on a six-point Likert scale (ranging from "always" to "never"). The Cronbach's alpha obtained for this scale was over 70%. Reliability refers to the degree of stability in measurement, indicating the consistency of the instrument in producing the same results under similar conditions. The validity and reliability of this questionnaire were reported in Ghorbani's (2004) study (Mohamadinikoo & Tamannaeifar, 2024). The reliability of this questionnaire in this study was reported as 0.77 using Cronbach's alpha.

2.2.6. Psychological Ego Strength

This questionnaire was developed by Markstrom, Sabino, Turner, and Berman in 1997 to assess ego strength. The questionnaire contains 64 items and eight components: ego strength, hope, desire, purpose, competence, fidelity, love, care, and wisdom. It is rated on a five-point Likert scale (strongly disagree, disagree, neutral, agree, strongly agree), with scores ranging from 1 to 5. The score for each subscale is obtained by summing the scores of the items in each subscale. Items 4, 6, 10, 11, 12, 14, 16, 21, 22, 23, 25, 26, 27, 29, 30, 34, 36, 40, 41, 42, 43, 47, 48, 50, 51, 54, 55, 58, 61, and 64 are reverse scored. The highest possible score is 320, indicating a high level of ego strength, while the lowest possible score is 64, indicating a low level of ego strength. The score for each subscale is also calculated by summing the items in each subscale. Markstrom et al. (1997) examined the validity and reliability of the questionnaire as its developers. They confirmed the face, content, and

construct validity of the questionnaire and reported a Cronbach's alpha of 0.68 for reliability. Altafi (2009) also reported a Cronbach's alpha of 0.91 for the scale on an Iranian sample, with a split-half reliability of 0.77 (Basharpour & Estiri, 2024). The reliability of this questionnaire in this study was reported as 0.79 using Cronbach's alpha.

2.3. Data analysis

The following statistical methods were used to analyze the data: in the descriptive statistics section, mean, standard deviation, skewness, and kurtosis were utilized. In the inferential statistics section, univariate and multivariate analysis of variance tests were used, and data analysis was conducted using SPSS.26 software.

3. Findings and Results

Among the 80 participants in this study, 40 individuals were in the obsessive-compulsive disorder (OCD) group, and 40 were in the major depressive disorder (MDD) group. The mean age and standard deviation for the OCD group were 33.50 and 6.909, respectively, while for the MDD group, the mean age was 34.76 with a standard deviation of 5.19. There was no significant difference in the mean age between the two groups (t(78) = -0.37, p > 0.05). The age range with the highest frequency in the OCD group was 31 to 40 years (40%), while the age range with the lowest frequency was 20 to 30 years (27.5%). In the MDD group, the highest frequency was also in the 31 to 40 years range (37.5%), and the lowest frequency was in the 41 to 50 years range (30%).

 Table 1

 Means and Standard Deviations of Research Variables in the OCD and MDD Groups

Scales	OCD Group M (SD)	MDD Group M (SD)	
Dark Personality Traits	29.53 (2.35)	21.50 (1.54)	
Self-Compassion	50.55 (8.64)	73.55 (4.98)	
Mindfulness	22.57 (2.08)	32.84 (3.14)	
Ego Strength	133.10 (9.61)	189.65 (9.20)	

The results of Levene's test for assessing homogeneity of variances showed that all research scales have homogeneous variances. Therefore, it can be said that both groups were homogeneous in terms of the research variables (p > 0.05). Another assumption of variance analysis is the normal

distribution of data. To test this assumption, the Kolmogorov-Smirnov test was used. The test results indicated that all research scales followed the assumption of normality (p > 0.05).



 Table 2

 Results of Multivariate Analysis of Variance (MANOVA) on the Mean Scores of Dark Personality Traits, Self-Compassion, Mindfulness, and

 Ego Strength

Test Name	Value	Hypothesis df	Error df	F	р	Partial Eta Squared (η²)
Pillai's Trace	0.57	4	72	60.19	< .001	0.55
Wilks' Lambda	0.02	4	72	60.19	< .001	0.55
Hotelling's Trace	33.58	4	72	60.19	< .001	0.55
Roy's Largest Root	33.58	4	72	60.19	< .001	0.55

The evaluation of data characteristics indicated that the assumption of homogeneity of variance-covariance matrices for the components of dark personality traits, self-compassion, mindfulness, and ego strength was not met (Box's M=94.52, p<0.001). Therefore, Pillai's Trace was used to evaluate the significance of the multivariate effect.

Pillai's Trace indicated that the group effect on the linear combination of dependent variables was significant (F = 60.19, p < 0.001, partial $\eta^2 = 0.57$). In other words, there was a significant difference between the MDD and OCD groups in one of the components of dark personality traits, self-compassion, mindfulness, and ego strength.

 Table 3

 Results of Univariate Analysis of Variance (ANOVA) for Dark Personality Traits, Self-Compassion, Mindfulness, and Ego Strength in the

 MDD and OCD Groups

Variable	Sum of Squares	df	Mean Square	F	р	Partial Eta Squared (η²)	
Dark Personality Traits	463.69	1	463.69	53.58	< .001	0.54	
Self-Compassion	367.45	1	367.45	33.45	< .001	0.35	
Mindfulness	812.50	1	812.50	67.47	< .001	0.67	
Ego Strength	447.33	1	447.33	48.58	< .001	0.49	

Univariate ANOVA statistics were run on each dependent variable separately to determine the source of the significant multivariate effect. Table 3 shows that the group had a significant effect on dark personality traits (partial $\eta^2=0.54,$ p<0.001), self-compassion (partial $\eta^2=0.35,$ p<0.001), mindfulness (partial $\eta^2=0.67,$ p<0.001), and ego strength (partial $\eta^2=0.49,$ p<0.001). The results indicated that the mean dark personality traits were higher in the OCD group than in the MDD group. Additionally, self-compassion, mindfulness, and ego strength were higher in the OCD group compared to the MDD group.

4. Discussion and Conclusion

The findings indicate that the mean dark personality traits were higher in the OCD group compared to the MDD group. Additionally, self-compassion, mindfulness, and ego strength were higher in the OCD group compared to the MDD group. These results are consistent with the prior findings (Borgholthaus et al., 2023; Hartung et al., 2022; Kapoor et al., 2021; Pavlović & Franc, 2023; Peixoto et al., 2023; Szabó et al., 2021; Turan et al., 2023).

This study demonstrated that dark personality traits, selfcompassion, mindfulness, and ego strength differ between individuals with obsessive-compulsive disorder and major depressive disorder. These differences can contribute to a better understanding of the various mechanisms underlying psychological disorders and aid in designing appropriate therapeutic interventions. In this study, significant differences were observed in dark personality traits, selfcompassion, mindfulness, and ego strength between individuals with OCD and MDD. Multiple studies have shown that individuals with OCD exhibit darker personality traits than those with MDD. For example, previous research has shown that traits such as narcissism, Machiavellianism, and psychopathy are more common in individuals with OCD (Hartung et al., 2022; Peixoto et al., 2023). Dark personality include characteristics like traits narcissism, Machiavellianism, and psychopathy, which are typically associated with selfish, manipulative, and unempathetic behaviors. The findings of this study indicated that individuals with OCD have more dark personality traits than those with MDD. This result is consistent with previous



findings suggesting that darker personality traits in OCD individuals may be due to higher control needs and a tendency toward perfectionism (Turan et al., 2023).

Previous research has also shown that individuals with OCD have higher levels of self-compassion than those with MDD. This may be due to the tendency of OCD individuals toward perfectionism and the need for control, leading to greater self-attention and efforts to reduce the tension caused by obsessive thoughts (Neff & Germer, 2022). Selfcompassion refers to treating oneself with care and kindness when facing difficulties and challenges. The findings of this study indicated that individuals with OCD have higher selfcompassion than those with MDD. This result may be due to the tendency of OCD individuals toward perfectionism and the need for control, leading to greater self-attention and efforts to reduce the tension caused by obsessive thoughts (Neff & Germer, 2022). These findings suggest that training in self-compassion could be an effective strategy in treating individuals with OCD.

Studies have shown that individuals with OCD have higher mindfulness due to their excessive attention to detail and desire to control everything. This continuous awareness of thoughts and feelings can lead to improved cognitive performance and reduced stress (Herrman et al., 2022). Mindfulness refers to being aware of thoughts, feelings, and experiences moment by moment. The results of this study showed that individuals with OCD have higher mindfulness than those with MDD. This finding is consistent with previous findings suggesting that excessive attention to detail and the desire to control everything can lead to increased awareness of thoughts and feelings (Conversano et al., 2020; Sulosaari et al., 2022). These findings suggest that mindfulness training can help improve cognitive performance and reduce stress in individuals with OCD.

Similar findings also show that individuals with OCD have higher ego strength than those with MDD. This may be due to their greater ability to cope with challenges and problems, stemming from higher control needs and a tendency toward perfectionism (Pihlajamäki et al., 2019). Ego strength refers to an individual's ability to cope with stresses and challenges while maintaining psychological balance. The results of this study showed that individuals with OCD have higher ego strength than those with MDD. This result is consistent with previous findings suggesting that the greater ability of OCD individuals to cope with challenges and problems may stem from higher control needs and a tendency toward perfectionism (Pihlajamäki et al., 2019). These findings suggest that

strengthening ego strength can help improve the psychological state of individuals with OCD.

5. Limitations & Suggestions

The differences observed in this study can help design appropriate therapeutic interventions. For example, in treating individuals with OCD, focusing on reducing dark personality traits and increasing self-compassion and mindfulness may be effective. These therapeutic approaches should be designed and implemented according to each patient's individual characteristics.

This research indicates that individual differences in personality and psychological traits can play a significant role in the type and severity of psychological disorders. Therefore, individualized treatments and interventions should be designed considering these differences to achieve the best possible outcomes. The significant differences in dark personality traits, self-compassion, mindfulness, and ego strength between the two groups can lead to a better understanding of the factors influencing psychological disorders. These differences suggest that personality and psychological traits can play an important role in the type and severity of psychological disorders.

Environmental factors, such as the setting where the questionnaires were completed, the participants' stress levels, and daily worries, may have influenced the study's results. These factors might have led to changes in participants' responses, potentially impacting the accuracy and validity of the findings. Some intervening variables, such as participants' mental and physical health status or their level of awareness and knowledge about the research topic, might have influenced the results, and these variables were not fully controlled. The limited time for data collection might have led to reduced accuracy and quality of the collected information. Additionally, the limited time for data analysis and a deeper examination of the results could be another limitation.

To increase the generalizability of the findings, it is recommended to use random sampling methods and select samples that are representative of the entire population. This approach can enhance the accuracy and validity of the results. It is also recommended that future research carefully examine the impact of environmental factors on participants' responses and strive to minimize these factors as much as possible. To reduce the limitations of self-report methods, a combination of data collection methods, such as structured interviews and direct observation, is suggested. In future



research, greater attention should be given to controlling intervening variables to reduce their impact on the results and enhance the accuracy of the findings. Conducting longitudinal studies can help examine changes in attitudes and misconceptions over time and provide a better understanding of the dynamics of these variables.

Therapeutic strategies and interventions based on the findings are suggested, such as how to enhance self-compassion or mindfulness in depressed and obsessive-compulsive patients. It is also recommended that psychologists and counselors use these findings in treatment and counseling programs. Recommendations for health systems and policymakers in the field of mental health include integrating mindfulness techniques into treatment programs for depression and OCD. Additionally, it is suggested that educational programs for patients and their families be developed based on the research findings to increase awareness and improve quality of life. Workshops for mental health professionals focused on the study's findings and their application in clinical practice should also be designed.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

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

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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References

- Basharpour, S., & Estiri, S. (2024). Predicting Marriage Readiness Based on Identity, Intimacy, Desire for Marriage and Optimism Model. *Journal of Family Research*, 19(76), 553-566. https://www.magiran.com/paper/2696260
- Borgholthaus, C. J., White, J. V., & Harms, P. D. (2023). CEO dark personality: A critical review, bibliometric analysis, and research agenda. *Personality and individual differences*, 201, 111951. https://doi.org/10.1016/j.paid.2022.111951
- Britton, W. B., Lindahl, J. R., Cooper, D. J., Canby, N. K., & Palitsky, R. (2021). Defining and measuring meditation-related adverse effects in mindfulness-based programs. Clinical Psychological Science, 9(6), 1185-1204. https://doi.org/10.1177/2167702621996340
- Chen, F., Zheng, D., Liu, J., Gong, Y., Guan, Z., & Lou, D. (2020). Depression and anxiety among adolescents during COVID-19: A cross-sectional study. *Brain, behavior, and immunity*, 88, 36. https://doi.org/10.1016/j.bbi.2020.05.061
- Conversano, C., Ciacchini, R., Orrù, G., Di Giuseppe, M., Gemignani, A., & Poli, A. (2020). Mindfulness, compassion, and self-compassion among health care professionals: What's new? A systematic review. Frontiers in psychology, 11, 564573. https://doi.org/10.3389/fpsyg.2020.01683
- Dodson, S. J., & Heng, Y. T. (2022). Self-compassion in organizations: A review and future research agenda. *Journal of Organizational Behavior*, 43(2), 168-196. https://doi.org/10.1002/job.2556
- Edinger, E. F. (2017). *Ego and archetype*. Shambhala Publications. https://www.shambhala.com/ego-and-archetype-3813.html?srsltid=AfmBOoq3nnEoQVqC0usk9PHRdswGjooU3LnOU8MrLo7jD1FVh5FGYQgm
- Fried, E. I., Flake, J. K., & Robinaugh, D. J. (2022). Revisiting the theoretical and methodological foundations of depression measurement. *Nature Reviews Psychology*, *1*(6), 358-368. https://doi.org/10.1038/s44159-022-00050-2
- Fritz, M., Soravia, S. M., Dudeck, M., Malli, L., & Fakhoury, M. (2023). Neurobiology of aggression-review of recent findings and relationship with alcohol and trauma. *Biology*, *12*(3), 469. https://doi.org/10.3390/biology12030469
- Hartung, J., Bader, M., Moshagen, M., & Wilhelm, O. (2022). Age and gender differences in socially aversive ("dark") personality traits. *European Journal of Personality*, *36*(1), 3-23. https://doi.org/10.1177/0890207020988435
- Herrman, H., Patel, V., Kieling, C., Berk, M., Buchweitz, C., Cuijpers, P., & Wolpert, M. (2022). Time for united action on depression: a Lancet-World Psychiatric Association Commission. *The lancet*, 399(10328), 957-1022. https://doi.org/10.1016/S0140-6736(21)02141-3
- Kapoor, P. S., Balaji, M. S., Maity, M., & Jain, N. K. (2021). Why consumers exaggerate in online reviews? Moral disengagement and dark personality traits. *Journal of Retailing and Consumer Services*, 60, 102496. https://doi.org/10.1016/j.jretconser.2021.102496
- Liao, K. Y. H., Stead, G. B., & Liao, C. Y. (2021). A meta-analysis of the relation between self-compassion and self-efficacy. *Mindfulness*, 12, 1878-1891. https://doi.org/10.1007/s12671-021-01626-4





- Loewenberg, P. J. (2014). *Nixon, Hitler, and power: An ego psychological study.* Routledge. https://doi.org/10.1080/07351698609533616
- Mohamadinikoo, Z., & Tamannaeifar, M. (2024). Structural Model of psychological Well-being based on Basic Psychological Needs and Mindfulness With the Mediating role of Problematic internet Use in adolescents [Research]. *Rooyeshe-Ravanshenasi Journal(RRJ)*, 13(1), 19-28. http://frooyesh.ir/article-1-4840-en.html
- Muris, P., & Otgaar, H. (2023). Self-esteem and self-compassion: A narrative review and meta-analysis on their links to psychological problems and well-being. *Psychology research and behavior management*, 2961-2975. https://doi.org/10.2147/PRBM.S402455
- Neff, K., & Germer, C. (2022). The role of self-compassion in psychotherapy. *World Psychiatry*, 21(1), 58. https://doi.org/10.1002/wps.20925
- Neff, K. D. (2023). Self-compassion: Theory, method, research, and intervention. *Annual review of psychology*, 74, 193-218. https://doi.org/10.1146/annurev-psych-032420-031047
- Neff, K. D., Knox, M. C., Long, P., & Gregory, K. (2020). Caring for others without losing yourself: An adaptation of the Mindful Self-Compassion Program for Healthcare Communities. *Journal of Clinical Psychology*, 76(9), 1543-1562. https://doi.org/10.1002/jclp.23007
- Omidi, A., Ahmadi, V., & valizadeh, r. (2024). Comparison of the effectiveness of emotion regulation training with cognitive therapy based on mindfulness on perceived stress and self-compassion in patients with irritable bowel syndrome. *medical journal of mashhad university of medical sciences*, 66(6). https://doi.org/10.22038/mjms.2023.70085.4163
- Pavlović, T., & Franc, R. (2023). Antiheroes fueled by injustice: dark personality traits and perceived group relative deprivation in the prediction of violent extremism. *Behavioral sciences of terrorism and political aggression*, 15(3), 277-302. https://doi.org/10.1080/19434472.2021.1930100
- Peixoto, Â., Gouveia, T., Sousa, P., Faria, R., & Almeida, P. R. (2023). Dark personality traits and tolerance towards unethical behaviors on entrepreneurship: A comparison between entrepreneurs and non-entrepreneurs. *Journal of White Collar and Corporate Crime*, 4(1), 5-13. https://doi.org/10.1177/2631309X211029877
- Phillips, W. J., & Hine, D. W. (2021). Self-compassion, physical health, and health behaviour: A meta-analysis. *Health Psychology Review*, 15(1), 113-139. https://doi.org/10.1080/17437199.2019.1705872
- Pihlajamäki, J., Lehikoinen, J., Partanen, J., Honkalampi, K., Kaasinen, V., & Kuikka, J. T. (2019). Cognitive behavior therapy for obsessive-compulsive disorder: The role of performance monitoring and error-related negativity. *Journal of affective disorders*, 246, 356-362.
- Rasmussen, A. R., & Parnas, J. (2022). What is obsession? Differentiating obsessive-compulsive disorder and the schizophrenia spectrum. *Schizophrenia Research*, 243, 1-8. https://doi.org/10.1016/j.schres.2022.02.014
- Ryan, R. M., Donald, J. N., & Bradshaw, E. L. (2021). Mindfulness and motivation: A process view using self-determination theory. *Current Directions in Psychological Science*, 30(4), 300-306. https://doi.org/10.1177/09637214211009511
- Sadeghkhani, M., Emamipour, S., & Mirhashemi, M. (2023). The structural model of emotional divorce based on the dark triad traits of personality and conflict resolution styles with the mediation of marital dissatisfaction. *Journal of Applied Family Therapy*, 4(2), 444-471. https://doi.org/10.22034/aftj.2023.394409.2029

- Salman Nasab, A., Yusefi, R., & Yagubi, H. (2024). Comparison of Personality Organization in People with Dark and Bright Personality Traits. *Iranian Journal of Neurodevelopmental Disorders*, 2(4), 28-35. https://doi.org/10.61838/kman.jndd.2.4.4
- Sezer, I., Pizzagalli, D. A., & Sacchet, M. D. (2022). Resting-state fMRI functional connectivity and mindfulness in clinical and non-clinical contexts: A review and synthesis. *Neuroscience* & *Biobehavioral Reviews*, 135, 104583. https://doi.org/10.1016/j.neubiorev.2022.104583
- Sharma, P. K., & Kumra, R. (2022). Relationship between mindfulness, depression, anxiety and stress: Mediating role of self-efficacy. *Personality and individual differences*, 186, 111363. https://doi.org/10.1016/j.paid.2021.111363
- Sulosaari, V., Unal, E., & Cinar, F. I. (2022). The effectiveness of mindfulness-based interventions on the psychological wellbeing of nurses: A systematic review. *Applied Nursing Research*, 64, 151565. https://doi.org/10.1016/j.apnr.2022.151565
- Szabó, Z. P., Simon, E., Czibor, A., Restás, P., & Bereczkei, T. (2021). The importance of dark personality traits in predicting workplace outcomes. *Personality and individual differences*, 183, 111112. https://doi.org/10.1016/j.paid.2021.111112
- Tayebmanesh, L., & Saadati, N. (2023). Effectiveness of Integrating Quality of Life-Based Therapy and Phototherapy on Emotion Regulation, Depression, and Anxiety in Psychosomatic Patients. KMAN Counseling & Psychology Nexus, 1(2), 37-43. https://doi.org/10.61838/kman.psychnexus.1.2.7
- Toprak, M., Boldrini, C., Passarella, A., & Conti, M. (2022). Harnessing the power of ego network layers for link prediction in online social networks. *IEEE Transactions on Computational Social Systems*, 10(1), 48-60. https://doi.org/10.1109/TCSS.2022.3155946
- Turan, M. E., Adam, F., Kaya, A., & Yıldırım, M. (2023). The mediating role of the dark personality triad in the relationship between ostracism and social media addiction in adolescents. *Education and Information Technologies*, 1-17. https://doi.org/10.1007/s10639-023-12002-1
- Tzenios, N., Tazanios, M., Chahine, M., & Jamal, P. O. B. (2023). The Complex Relationship Between Obesity and Depression. *Special Journal of the Medical Academy and other Life Sciences*, *1*(3), 22. https://doi.org/10.58676/sjmas.v1i3.22
- Wakelin, K. E., Perman, G., & Simonds, L. M. (2022). Effectiveness of self-compassion-related interventions for reducing self-criticism: A systematic review and metaanalysis. Clinical Psychology & Psychotherapy, 29(1), 1-25. https://doi.org/10.1002/cpp.2586
- Weltens, I., Bak, M., Verhagen, S., Vandenberk, E., Domen, P., van Amelsvoort, T., & Drukker, M. (2021). Aggression on the psychiatric ward: prevalence and risk factors. A systematic review of the literature. *PLoS One*, *16*(10), e0258346. https://doi.org/10.1371/journal.pone.0258346
- Zabet, M., Karami, J., & Kamran, Y. (2021). The efectiveness of imagery rescripting and reprocessing therapy on cognitive abilities, distress tolerance and symptoms of obsessive-compulsive disorder (OCD) in women. https://www.academia.edu/download/79710569/4831400100 07.pdf

