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**Prediction of Abnormal Personality Traits
based on Maladaptive Schemas and Dark Triad
Personality Traits Considering the Mediating
Role of Difficulties in Emotion Regulation**

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The purpose of the research was to predict abnormal personality traits based on maladaptive schemas and dark triad personality traits considering the mediating role of difficulties in emotion regulation. This was a descriptive-correlation study with structural equation modeling approach. The study population included all students of Isfahan University in of both genders during the academic year of 2022-2023. 255 people were selected as a sample by multi-stage cluster sampling. The data were collected using personality inventory for DSM-5 – short form (PID-5-SF), the Dark Triad Traits of Personality Questionnaires (DTTPQ), the difficulties in emotion regulation scale (DERS) and Schema Questionnaire—Short Form (SQ-SF) and were analyzed on Pearson correlation, path analysis and structural equation modelling). The results showed that the suggested hypothetical model has a good fit. The results also

revealed a significant correlation between the dark triad personality traits and early maladaptive schemas with difficulties in emotion regulation and between dark triad personality traits and early maladaptive schemas with abnormal personality traits. Also, the path analysis also revealed a positive and significant correlation between early maladaptive schemas with difficulties in emotion regulation ($\beta=.73$, $P\geq.001$) and abnormal personality traits ($\beta=.51$, $P\geq.001$) and early maladaptive schemas and dark triad of personality have a positive and significant indirect effect on abnormal personality traits through difficulties in emotion regulation. According to the findings it can be concluded that the early maladaptive schemas and dark triad personality traits directly and indirectly predict abnormal personality traits through the difficulties in emotion regulation.

Keywords: abnormal personality traits, maladaptive schemas, dark triad personality traits, difficulties in emotion regulation

Personality disorder (PD) is a persistent pattern of internal experiences and behavior that is inconsistent with the culture, which causes individual dissatisfaction and disruption in the individual's functions (Kaplan & Sadock, 2009). In the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV), a categorical approach is used in the evaluation of personality disorder. This categorical approach, despite providing useful information about the severe states of a disorder, the presence or absence of clinical symptoms of each disorder, has disadvantages such as the lack of an experimental cut-off score, the inability to consider all dimensions and personality traits and the developmental level of the client's character (Widiger & Trull, 2007). In the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-V), the categorical approach is completely repeated, but the dimensional approach or the alternative model of the trait-based personality disorder, in which a continuum of symptoms of a disorder is considered for diagnosis is taken into account in the appendix of this edition (Bo & et al, 2015). With the aim of continuing clinical services and providing a new method for

evaluating personality disorders, the working group of the personality section of DSMV, has tried to provide an alternative model taking into account two criteria of individual malfunctioning and abnormal personality traits in the appendix section of the guide (Samuel & et al, 2013). In the DSM-V personality disorder model, in addition to the previous 10 personality disorders, 25 traits, each of which are a subset of morbid personality traits, have also been measured. Therefore, the similarities and differences between people can be identified more by measuring the higher traits of a person so that the treatments become more efficient (Markon & et al, 2013). Abnormal personality dimensions are organized in 5 areas: negative affectivity, detachment, antagonism, disinhibition and psychoticism, each of which includes 3 to 6 traits (n=125 maladaptive traits) (Esbec & Echeburúa, 2015). Jens (2010) believes that early maladaptive schemas can play a role in the emergence of personality traits. The main maladaptive schemas are classified in five main domains, namely disconnection & rejection, impaired autonomy & performance, impaired limits, other-directedness, over-vigilance & inhibition (Young, Klosko & Weishaar, 2003). In this regard, Bilge & Balaban (2021) showed that social isolation/ mistrust schemas and then approval-seeking schema for histrionic and narcissistic personality and failure schema for dependent personality disorder have the highest predictive power. Noor & Dildar (2021) believe that there is a relationship between maladaptive schemas and personality disorders. Aloï & et al. (2020) investigated the relationship between early maladaptive schemas and abnormal personality traits with mental disorders, and showed a relationship between the severity of eating disorder with emotional neglect and personality traits such as depression, emotional disability and

impulsivity and cognitive schemas of depression, deprivation and emotional defects. In this regard, abnormal personality traits were investigated in the last decade using personality pathology models, according to the DSM-V approach, and a group of personality traits that are not severe clinical disorders and are actually considered clinical subthreshold, but can be accompanied with psychological malfunctions, have also been considered under the title of dark triad personality traits (Yousfi, Ahmadi & Mirzazadeh, 2019).

Although dark triad personality traits do not require clinical attention, they are inefficient, annoying and destructive in terms of interpersonal and social and psychological domains, and can lead to disorders (Ahmedpour, 2018). Dark triad personality traits include narcissism characterized by a sense of grandiosity; machiavellianism characterized by manipulation and exploitation of others, indifference to morality, lack of empathy, and antisocial behavior characterized by indifference and antisocial behavior (Torres-Marína & et al, 2022). However, the model of four dark personality traits, with the addition of another component, i.e. sadism, has also been proposed (Neumann, Jones & Paulhus, 2021). But, the morbid model of personality proposed in DSM-V by Krueger & et al. (2012) basically somehow depicts the extreme and dimensions of the traditional 5- five-factor model of morbid personality. For this reason, it is expected that there is a relationship between the dimensions of morbid personality proposed in DSM-V and dark triad personality traits (Grigoras & Wille, 2017). The overlapping of traits such as cruelty, manipulation and fraud as machiavellianism; risk-taking and impulsivity with antisociality and grandiosity and the relationship between narcissistic personality disorder and antisociality indicate the relationship between dark triad personality traits and

abnormal personality dimensions (Grigoras & Wille, 2017). Doerfler & et al (2021) determined that the dark triad personality dimensions can be associated with inefficiency in personality traits, tendency to crime and violence. Pajevic, & et al (2018) showed an inverse relationship between all the dark triad personality dimensions with emotional and cognitive empathy and the ability to recognize emotions, and all dimensions of the dark triad personality negatively predict emotional empathy. There is also an inverse relationship between psychoticism and sadism with emotion recognition performance.

Apart from the predictors of abnormal personality traits (schemas and dark triad personality traits) mentioned above, difficulties in emotion regulation are also considered as a possible mechanism in relation to most psychopathologies.

If the normal emotional function is our relatively stable neurophysiological response to external stimuli, emotion regulation includes a range of conscious and unconscious cognitive, emotional and behavioral strategies that help people determine social psychological behaviors to achieve the desired goal by initiating, maintaining, adjusting and changing the occurrence, intensity and continuity of emotion (Vimz & Pina, 2010). In this regard, researches have revealed that axis-II disorders are associated with emotional dysregulation in more than half of cases (Pollock & et al, 2016). Therefore, it seems logical that PDs reflect the emotional dysregulation (Euler & et al, 2021). In a study on the multivariate models of the relationship between maladaptive schemas and emotion regulation mechanisms in PD, Salgó, Bajzát & Unoka (2021) showed that investigating the common relationships between states of maladaptive schemas and emotion regulation strategies can help to achieve a deeper understanding of the hidden personality

profiles of people. Haliczzer, Woods & Dixon-Gordon (2021) showed a relationship between borderline personality disorder and interpersonal conflicts with maladaptive emotion regulation strategies such as arguing. Kramer & Timulak (2021) believe that there are three main types of emotional processing: 1. problems in emotion regulation, i.e., high emotional arousal or lack of arousal, 2. problems in differentiating between emotional processes and 3. problems in emotion-based meaning-making that can be associated with symptoms observed in the clients with personality pathology. Therefore, Bach & Bernstein (2019) believe that schemas are generally related to personality disorders and difficulty in emotion regulation in a very coherent conceptual manner, in a way that schemas represent the themes and individual styles of personality disorders and dark triad personality traits also have the power to predict personality disorder (Grigoras & Wille, 2017). Conset & et al (2020), however, state that due to the high heterogeneity in previous related studies and unclear conceptualization in the research literature, these relationships have not yet been precisely determined and the important and mediating role of emotion and emotion regulation strategies in the emergence of abnormal personality traits should be paid more attention. For this reason, it is necessary to achieve a better understanding of the role of emotion regulation strategies in a more accurate and efficient conceptualization of abnormal personality traits and its correlates. Therefore, the purpose of the present research is to answer the question whether the hypothetical model for predicting abnormal traits proposed by DSM-V (Model 1) based on dark triad personality traits, maladaptive schemas with the mediation of difficulty in emotion regulation, is of acceptable fit?

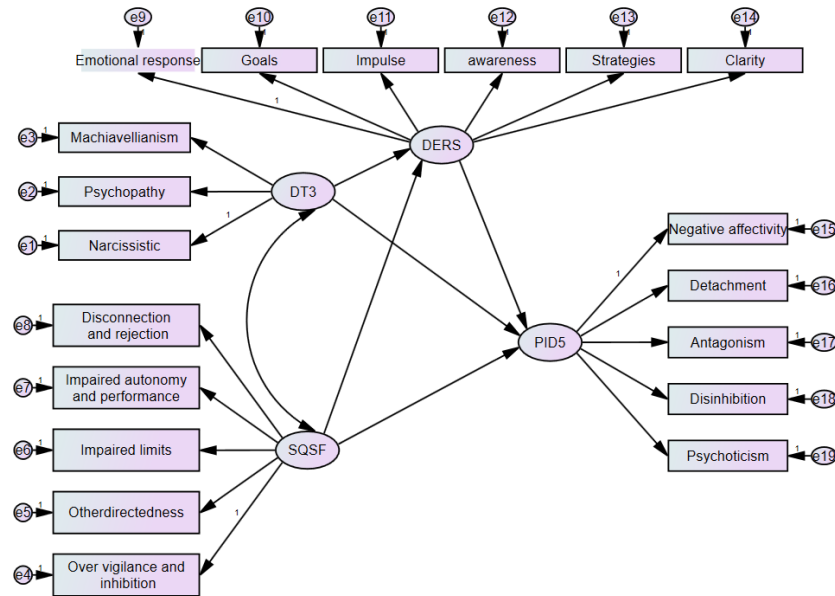


Figure 1. The proposed model of the present study

Method

The current research is applied in terms of its purpose, a questionnaire survey in terms of its data collection method, and a correlation study and structural equation modeling (SEM) in terms of methodology. The study population consisted of all students of Isfahan University in all fields of study and in three academic levels and of both genders in the first semester of the academic year of 2022-2023. The sample size was selected by multi-stage cluster sampling method. To this end, at first, three faculties were randomly selected from among the faculties of the university and 3 groups were randomly selected from each faculty and three classes from each group were selected as the sample size. In order to determine the sample size, the method proposed by Bentler & Chou (1987) was used. They proposed at least 5 to 10 people for each parameter, which provides a sufficient sample

size to perform confirmatory factor analysis. In this study, 255 people were selected as the early sample.

Instruments

The Personality Inventory for DSM-5 Short Form (PID-5-SF)

This questionnaire was developed by Kruger et al. (2012) to measure the abnormal personality dimensions. In fact, this tool is designed to evaluate the dimensional model of five abnormal dimensions of personality, whose short form measures 25 items and 5 domains of personality (Widiger & Simonsen, 2005). Kruger et al. (2012) reported that the internal consistency of its subscales, i.e., negative affectivity, detachment, antagonism, disempowerment, and psychoticism was .91, .96, .97, and .93 and .89, respectively (Kruger et al., 2012). It has a five-factor structure, which include negative affectivity (such as separation anxiety and insecurity), detachment (such as isolation, unpleasantness, avoidance of intimacy), antagonism (such as manipulation, cheating, grandiosity), disinhibition (such as irresponsibility, impulsivity, distractibility), psychoticism (such as unusual beliefs and experiences, social avoidance, cognitive disorganization) (American Psychiatric Association, 2013). The items are scored based on a four-point Likert scale ranging from completely disagree (0) to completely agree (3). In the study by Bach et al. (2018), the reliability and validity of this tool was reported as .86 for the non-clinical population and .84 for the clinical population. The psychometric properties of this version were confirmed by Abdi & Pak in Iran (2017) and the whole validity was 0.86 and the internal consistency of the factors was reported between .76 and .89. Also, Cronbach's alpha for negative affectivity, detachment, antagonism, and psychoticism traits was

.88, .83, .81, and .91, respectively. Meanwhile, in the current study, the reliability of the tool was calculated 0.73 using Cronbach's alpha method.

Dark Tetrad Traits of Personality Questionnaires (DTTPQ)

This questionnaire was developed by Yousefi & Imanzadeh (2018) through combination and cross-validation of the Dirty Dozen scale of Jonason & Webster (2010); Yousefi & Piri (2016) and the Persian version of the Short Sadistic Impulse Scale and contains 16 items (Machiavellianism 3, 4, 1, 2, anti-sociality 5, 6, 7, 8, narcissism 9, 10, 11, 12 and sadism 13, 14,15,16), which is scored on a 7-point Likert scale from 0 to 6. The validity and reliability of this questionnaire have been confirmed on an Iranian sample (Yousefi & Imanzadeh, 2018). The Cronbach's coefficient obtained for the whole in the present study was .79 scale and .85, .56, .72, and .76 for the subscales of machiavellianism, antisociality, narcissism, and sadism, respectively. The split-half reliability was obtained .75, .77, .58, .82, and .71 for narcissism, machiavellianism, antisociality, sadism, and the whole scale, respectively. The one-week test-retest reliability coefficient of the questionnaire was .84 for the whole questionnaire and .81, .78, .76, and .79 for narcissism, machiavellianism, antisociality and sadism, respectively. Meanwhile, in the current research, the reliability of the tool will be calculated and reported using Cronbach's alpha method.

Difficulties in Emotion Regulation Scale (DERS)

Difficulties in Emotion Regulation Scale is a 16-item scale designed by Gratz & Roemer (2004). This scale has a total score and six subscales, which are related to the difficulty in regulating emotional states. The sub-scales include non-acceptance of

negative emotions, inability to engage in goal-oriented behaviors, difficulties in controlling impulsive behaviors, lack of emotional awareness, restricted access to emotion regulation strategies, and lack of emotional clarity. The questions are scored based on a 5-point Likert scale (ranging from Very rarely=1 to Almost always=5). Cronbach's alpha of .93 was reported for the whole scale and above .81 for all subscales in the study by Gratz & Roemer (2004). Khanzadeh et al. (2012) reported Cronbach's alpha between .81 and .85 for all subscales of the questionnaire in Iran. Falahi, Narimani, and Atadokht (1400) also reported an acceptable internal consistency coefficient for this scale. Cronbach's alpha coefficient was .91 for the total score of DERS and .67 and .71 for its sub-scales. The fit indices of the confirmatory factor analysis also showed the appropriate validity of the scale (Falahi, Narimani, and Atadokht, 2021). Moreover, the Cronbach reliability of this tool was calculated 0.81 in the present study.

Schema Questionnaire—Short Form (SQ-SF)

This questionnaire consists of a long form (n=90 questions) and a short form (n= 75 questions). The questionnaire was designed by Yang et al. (2003) based on 18 basic schemas. The short form measures 15 main schemas. Each item of this questionnaire is answered based on a 6-point Likert scale (ranging from 1 to 6). Each subscale consists of 5 items that measure the early maladaptive schema. Yang et al. (2003) have reported the internal consistency and test-retest reliability of this questionnaire .95 and .81, respectively. In Iran, this questionnaire was standardized by Yousefi et al. (2009) and the split-half and Cronbach's alpha reliability were obtained .96 and .81 for the whole scale, and .87 and .84 in girls and .84 and .81 in boys,

respectively. In their research, Fatehizadeh and Abbasian (2005) calculated the validity of Yang's SQ-SF as .34 by correlating it with the irrational beliefs test (Karami et al., 2013). Also, the short form was used in the present study and its reliability was calculated at .81 using Cronbach's alpha method.

In order to analyze the data collected from the research tools, in addition to descriptive statistics, the statistical method of path analysis and structural equation modeling were used in SPSS-24 and AMOS-5 software.

Results

The mean (and standard deviation) of the students participating in the study was 26.43 (and 8.97) with minimum age of 18 and maximum age of 48 years. The mean age of female students participating in the study was 25.74 (and 8.95) and male students participating in the study were 28.15 (8.83). Among the participants, 252 (71.4%) were girls and 101 (28.6%) were boys.

The aim of the current research was to determine the model fit of abnormal personality traits based on maladaptive schemas, nature and character, and dark personality traits with regard to the mediating role of emotion regulation difficulty. Since the structural equation model of a special causal structure between a set of latent variables and observed variables has been used in this research. The relationships between latent variables and the measurement items of each latent variable with the relevant variable was investigated using the structural equation model. Before using this statistical method, the main assumptions were checked according to Klein (2016). The normality of the data distribution was established using skewness and kurtosis statistics. In this research, the absolute values of skewness and kurtosis coefficient were less than 3 and 10, respectively, which

indicates the normality of the data distribution in the present research. Absence of outliers was established using a box-whisker plot. The results of the scatter plot showed that the assumption of linearity between the research variables is established. In the present study, tolerance statistics and variance increase factor were not smaller than 0.1 and larger than 10, respectively for any of the variables. Therefore, multicollinearity was not found among the predictors of this research. In Table 1, the mean and standard deviation of the research variables along with the assumption of normality are presented using skewness and kurtosis test.

Table 1
The Means, Standard Deviations with Assumption of Normality

Variables	M	SD	Skewness	Kurtosis
Machiavellianism	13.12	3.57	-.77	.29
Psychopathy	6.89	3.54	1.60	2.42
Narcissistic	9.26	3.56	.69	.28
DT3	29.28	8.16	.56	.47
Disconnection & rejection	55.16	21.60	1.10	1.60
Impaired self-regulation and performance	37.77	15.29	.91	.06
Impaired limits	29.24	9.34	.04	-.35
Other-directedness	28.24	8.02	.36	1.41
Over-vigilance & inhibition	30.01	9.23	.01	.34
SQ-SF	180.45	52.12	.48	.17
Emotional response	17.12	5.32	-.13	-.49

Goals	15.36	3.59	-.37	-.15
Impulse control	18.22	4.66	-.22	-.89
Emotional awareness	17.45	4.55	-.18	-.44
Strategies	23.79	6.34	-.30	-.59
Emotional clarity	13.52	2.70	.39	.60
DERS	104.41	18.75	-.25	.14
Negative affectivity	4.35	2.09	.08	.09
Detachment	3.90	2.032	.23	-.23
Antagonism	3.51	2.15	.52	.02
Disinhibition	3.08	2.39	.82	.11
Psychoticism	3.08	2.25	.44	-.56
PID-5-SF	17.93	8.09	.04	-.33

The matrix of the correlation coefficient of the direct relationship between the variables of early maladaptive schemas and the dark personality triad with difficulties in emotional regulation is given in Table 2.

Table 2
Matrix Correlation Coefficient of Research Variables

Variable	Emotional response	Goals	Impulse	awareness	Strategies	Clarity	DERS	Negative affectivity	Detachment	Antagonism	Disinhibition	Psychoticism	PID-5-SF
Machiavellianism	.39**	.45**	.49**	0.071	.47**	.25**	.40**	.54**	.49**	.46**	.31**	0.49**	0.57**
Psychopathy	0.076	0.079	0.086	.15**	*.13	0.076	0.063	0.087	0.103	0.068	0.085	0.013	0.099
Narcissistic	.37**	.35**	.35**	0.033	.31**	.44**	.31**	.42**	.32**	.38**	.26**	0.43**	0.46**
DT3	.43**	.44**	.46**	*.11	.45**	.37**	.40**	.53**	.46**	.46**	.33**	0.48**	0.57**
Disconnection & rejection	.57**	.61**	.69**	.20**	.71**	.35**	.58**	.76**	.79**	.53**	.53**	0.52**	0.78**
Impaired self-regulation and performance	0.62**	.66**	0.70**	0.18**	0.74**	0.26**	0.62**	0.72**	0.78**	0.56**	0.52**	0.51**	0.77**
Impaired limits	0.59**	0.63**	0.71**	0.17**	0.70**	0.30**	0.58**	0.68**	0.73**	0.48**	0.46**	0.45**	0.70**
Other-directedness	0.63**	0.65**	0.71**	0.22**	0.74**	0.22**	0.62**	0.68**	0.75**	0.50**	0.48**	0.49**	0.72**
Over-vigilance & inhibition	0.56**	0.57**	0.58**	0.033	0.61**	0.27**	0.62**	0.52**	0.55**	0.57**	0.43**	0.40**	0.61**
SQ-SF	0.63**	0.67**	0.74**	0.20**	0.76**	0.31**	0.64**	0.75**	0.80**	0.56**	0.54**	0.53**	0.79**

P<0.01**

P<0.05*

As shown in Table 2, there is a relationship between dark traits and emotional regulation difficulties ($r = .40$, $P < .01$). Also, there was a positive and significant relationship between dark traits and Personality inventory for DSM-5 ($r = .40$, $P < .01$). Also, there is a positive and significant relationship between early maladaptive schemas and difficulties in emotional regulation with ($r = .64$, $P < .01$) and abnormal personality traits ($r = .79$, $P < .01$). As can be seen in the table, there is a positive and significant relationship between dark personality traits and early maladaptive schemas with emotional regulation difficulty and abnormal personality traits. In other words, higher scores in dark traits and early maladaptive schemas are associated with emotion regulation difficulty and abnormal personality traits.

Table 3
Global Fit Indices for the Factor Analyses

Model	χ^2	df	CMIN/DF	P	RMSEA	Lower	Upper	CFI	NFI	TLI	GFI	IFI
Basic model	1230.76	286	4.303	0.001	0.08	0.06	0.09	0.86	0.83	0.84	0.78	0.86
95% CI Modified model	414.263	288	3.941	0.001	0.04	0.03	0.06	0.91	0.90	0.91	0.81	0.90
Acceptable fit	>5%	-	<3	0.001	0.05	0.03	0.07	0.9	0.9	0.9	0.9	0.9

We constructed and examined the mediating effect of difficulties in emotional regulation between dark traits and maladaptive

schemas with Abnormal personality. The data fit the model well ($df = 286$, $\chi^2/df = 4.303$, $CFI = .86$, $TLI = .84$, $NFI = .83$, $RFI = .80$, $RMSEA = .08$). Figure 1 presents the standard coefficients of the direct paths. As Wu (2009) suggested, if goodness-of-fit indices for baseline comparisons including normed fit index (NFI), incremental fit index (IFI), comparative fit index (CFI) are closer to 1, the model fit is more optimal. The values of NFI, IFI, CFI obtained by CFA were 0.83, 0.86, and 0.86 respectively were all close to 1. However, according to Wu (2009), by modifying the model, the fit indices of the model were in the desired range. Therefore, the corrective and final model with two fault spheroids had a good fit.

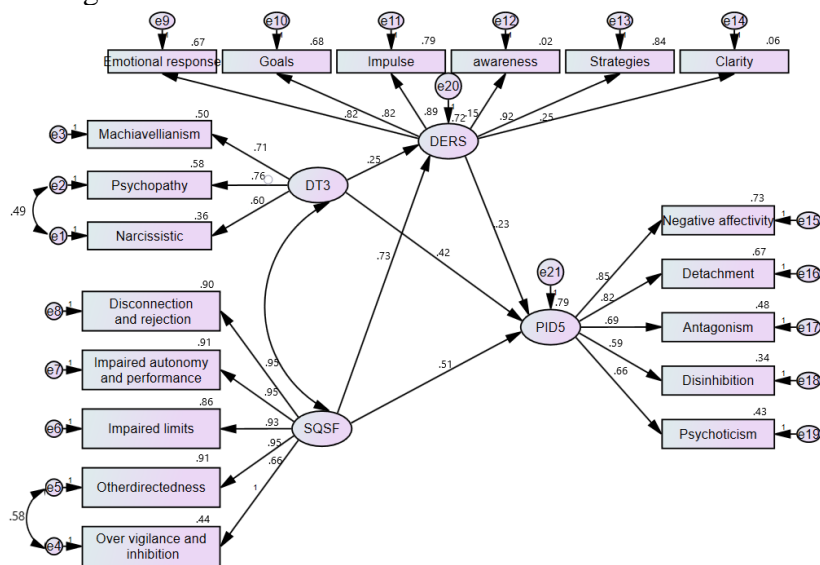


Figure 2. Structural equation model of difficulties in emotional regulation between dark traits and maladaptive schemas with Abnormal personality.

Table 3 presents the results of the path analysis of the four variables and shows the standardized coefficients, standard errors (SEs), 95% confidential intervals (CIs), and p values. The effect

of dark traits on DERS was significant ($\beta = .253$, $p = .001$), and so was the effect of maladaptive schemas on DERS ($\beta = .732$, $p = .001$), DERS on abnormal personality ($\beta = .233$, $p = .002$), dark traits on abnormal personality ($\beta = .423$, $p = .001$), maladaptive schemas on abnormal personality ($\beta = .512$, $p = .001$), was significant.

The results showed that 72% of variance of difficulties emotional regulation is explained by dark traits and early maladaptive schemas. Also, 79% of the variance of abnormal personality is explained by dark traits, early maladaptive schemas and difficulties in emotional regulation.

Table 4

The Indirect Effects Standardized Coefficients of Early Maladaptive Schemas, and the Dark Triad with Abnormal Personality Traits Through Difficulties in Emotion Regulation

Paths	Indirect effect	Bias	S. E	Lower	Upper	P
maladaptive schemas → DERS → PID	.17	.013	.002	.067	0.31	.003
Dark traits → DERS → PID	.05	.001	.071	.025	.111	.002

As Table 4 shows, the lower and limits of the confidence interval for the variables of early maladaptive schemas and dark triad of personality are equal to .025 and .313, respectively (the upper limit and the lower limit do not include zero). The confidence level is .95 and the number of bootstrap resampling is 2000. Accordingly, early maladaptive schemas and dark triad of personality have a positive and significant indirect effect on abnormal personality traits through difficulties in emotion

regulation. Therefore, this indirect relationship of these variables is confirmed in the proposed model.

Discussion

The results of investigating the direct effects of the variables showed a positive and significant relationship between early maladaptive schemas, dark personality traits, and abnormal personality traits with difficulties in emotion regulation, which is consistent with studies by Rahmani, Abdi and Chalabianlu (2022), Abdi & Pak (2017), Yousefi, & et al (2019), Esbec & Echeburúa (2015), Rogir, & et al (2020) and Gamchel et al. (2023), Bilge & Balaban (2021), Doerfler, et al (2021). Personality and its disorders can lead a wide range of psychological and interpersonal problems (Lahy, 2009). In the classification systems of previous mental disorders (3 and 4) with the 'all or nothing' approach, it was believed that a number of personality disorders have a common basis and core and are placed in the same class, that the presence of several characteristics at the same time can lead to a certain diagnosis. But DSM-5, in addition to diagnosing the previous ten personality disorders, specifies special traits (25 traits in 5 main dimensions), which are a subset of morbid personality traits defined as higher traits. These traits efficiently explain the clinical levels of psychopathology (Krueger & Eaton, 2010) and predict other psychological characteristics and personality traits, which are not morbid. Harkness, Finn, McNulty & Shields (2012) showed a strong relationship between these traits and big five personality traits (NEW). That is general and abnormal traits are under the umbrella of five factors, which can be interpreted as five normal or abnormal personality factors.

For example, Watson, et al (2013) showed a direct and strong relationship between negative affectivity with conscientiousness and agreeableness, agreeableness with extraversion, and a strong negative relationship between psychoticism and openness. This overlap between normal and abnormal traits can implicitly indicate the common content between these two groups of traits (Wright et al., 2012, Abdi & Chelibanlou, 2016). Therefore, it can be stated that morbid personality traits have worked in line with other psychological traits and characteristics, which shows the high validity of these traits in measuring general and specific personality pathologies and unique psychological aspects of people. Yousefi, et al (2019) believe that dark personality traits can be rooted in maladaptive dimensions and aspects of personality. In their research, they showed that the five morbid personality dimensions, including negative affectivity, detachment, antagonism, disinhibition, and psychoticism are related to the traits of Machiavellianism, antisociality, narcissism, and sadism. Machiavellianism was significantly predicted through the dimension of antagonism; anti-sociality through the dimensions of antagonism and detachment; narcissism through antagonism- detachment and negative affectivity; and sadism through antagonism. Moreover, they found that antagonism as one of the morbid personality dimensions can predict all four dark personality traits. On the other hand, Tieman (2010) states that early maladaptive schemas manifest psychopathology by affecting the deepest levels of cognition through cognitive distortions and self-destructive life patterns. Young, Klosko & Weishaar (2009) believe that maladaptive early schemas are the core of personality disorders, cognitive behavioral problems, and many chronic psychological disorders. Early maladaptive schemas often cause and perpetuate personality disorder through

cognitive distortions, pessimistic life patterns and ineffective coping styles (Bach & Bernstein, 2019). In this regard, results of studies by Valipour, Sheidanbrani et al (1401) show that the variables of comprehensibility, disinhibition, consensus, psychoticism and morbid hostility are significantly capable of predicting antisocial personality disorder, the variables of comprehensibility, disinhibition, control, negative affectivity, blame, duration, simplistic view of emotion, rumination, and numbness are significantly capable of predicting borderline personality disorder, the variables of morbid hostility, detachment, impaired limits, blame, higher values, psychoticism, and consensus are significantly capable of predicting narcissistic personality disorder, and the variables of consensus, disinhibition, morbid hostility, detachment, negative affectivity, over-vigilance and other-directedness are significantly capable of predicting histrionic personality disorder.

Also, with regard to the relationship between morbid personality traits and psychological disorders with emotions, it can be stated that personality traits may often act as maladaptive strategies in emotion regulation (Azizi, et al., 2018). For example, high levels of abnormal dimensions of personality are often associated with interpersonal problems such as violence (Holden et al, 2015). Therefore, in fact, problems related to emotion and emotion dysregulation act as metadiagnosis (Widiger, 2011). Berking & Whitley (2014) believe that emotion regulation and subsequent difficulties and problems often better explain psychopathology and abnormal dimensions of personality. In this regard, Abdi & Pak (2016) showed a positive relationship between abnormal dimensions of personality with emotional dysregulation. That is, there is a strong correlation between negative affectivity with lack of emotional clarity; antagonism

with reluctance to accept emotional responses; disinhibition with difficulty in impulse control and psychoticism with difficulty in performing purposeful behaviors. Therefore, to explain this relationship, it can be stated that the morbid personality traits, such as negative affectivity, can activate maladaptive strategies in a person by creating a state of vigilance and perceiving the threat of danger and not clearly accepting emotional responses, which perpetuate the personality disorder. Or this morbid personality trait makes the person unable to review, evaluate emotional experiences and change and interpret emotions, and subsequent lack of awareness of emotions makes ineffective problem-solving strategies and eliminates the opportunities to adopt effective strategies to change the situation and regulate emotions. With regard to the indirect relationship of the variables, the results of the present study revealed that the early maladaptive schemas and the dark triad personality traits have a positive and significant indirect effect on abnormal personality traits through difficulties in emotional regulation.

The findings of Rahimi et al. (2022) indicate a direct and strong relationship between emotional deprivation, mistrust, and emotional inhibition from the variable of early maladaptive schemas, with the variables of limited strategies, difficulty of performing a purposeful behavior, lack of emotional awareness, and difficulty of impulse control from the variable of difficulties in emotional regulation. Gratz & Roemer (2004) states that emotional regulation includes four components: awareness and understanding of emotions, acceptance of emotions, and the ability to control impulsive behaviors and behave in accordance with the desired goals when negative emotions are experienced and the ability to use situationally appropriate emotion regulation strategies flexibly to modulate emotional responses as desired in

order to meet individual goals and respect environmental demands. On the other hand, it is assumed that the emotional dysregulation is the underlying mechanism of mood and anxiety disorders (Campbell-Sills & Barlow, 2007). Therefore, to explain this finding, it can be stated that people with early maladaptive schemas such as instability/abandonment, mistrust/misbehavior, emotional deprivation, defect/shame, social isolation/alienation, often fail to establish a proper and logical emotional relationship with their relatives, therefore they use coping styles that fit their maladaptive schema such as submission, avoidance or extreme compensation, and in this way morbid personality traits such as negative affectivity detachment, antagonism, and disinhibition are formed and developed in them during the transformation process and can manifest themselves as personality disorders.

The limitations of the current study included the use of a single and common method, self-assessment based on paper-pencil tools, failure to use other sampling methods such as interviews or clinical evaluations, lack of accurate screening of mental disorders in the research sample, the use of only the general population and the non-clinical nature of the sample, considering that the tool was designed to measure abnormal dimensions of personality. It was advisable to have used both clinical and non-clinical populations. The sample was not matched in terms of gender. It is suggested that this research be carried out in other study populations using other research and diagnostic tools. It is also suggested to measure and evaluate the effectiveness and fit of the model of 5 morbid personality factors in the Iranian population in a mixed (quantitative-qualitative) study.

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