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The Relationship between Emotional Schemas, Differentiation of Self, as well as Mentalization and Borderline Personality Features in a Non-Clinical Population

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The study examines the relationship between emotional schemas, self-differentiation, mentalization, and borderline personality features in order to increase recognition of these features though they are common in a non-clinical population. This study examined 242 students of Iran Kharazmi University, using standard questionnaires; Leahy's emotional schemas, self-differentiation scale, reflective performance questionnaire, and borderline personality scale. We utilized statistical software SPSS (Version 22), Lisrel 8.50, Mplus 7 in order to apply analytical methods such as Structural Equation Modeling (SEM). The participants were 68 men (28.1%) and 174 women (71.9%). According to the Goodness of Fit indices, the structural model presented fit the data well. This study found significant coefficients for all paths in the model. In addition, the coefficients determining the endogenous variables of the model were also optimal. Thus, the current model could explain 53% of borderline personality features. In the analysis, emotional schemas were found to be positively and significantly associated

with borderline personality features as a result of their differentiation of the self and mentalization. Based on these important results, programs and clinical interventions can be developed in order to reduce borderline personality features in the normal population and to prevent borderline personality disorders.

Keywords: emotional schemas, differentiation of self, mentalization, borderline personality features

One of the personality types that has received a great deal of attention is the borderline personality (Leichsenring et al., 2023). Borderline personality patients typically experience intense emotional upheavals and emotional disorganization, which lead to difficulties in regulating emotions and interacting with others. There is a continuum of borderline personality, with borderline personality disorder (BPD) at the extreme end of the spectrum (D'Aurizio et al., 2023). As borderline personality features (BPF) become more severe, they become associated with more problems (Gunderson et al., 2018). Among women, BPD occurs twice as frequently as among men, and it is present in 1% to 2% of the population (Mainali et al., 2020). According to previous studies, approximately 15% of students exhibit BPF (Shenoy & Praharaj, 2019). In interpersonal relationships, borderline personality is associated with emotional vulnerability and instability (Vanwoerden et al., 2023). Individuals with BPF are more likely to exhibit antisocial, self-injurious, and suicidal behavior, as well as depression, anxiety, and low quality of life (Gunderson et al., 2018). While most studies have focused on BPD in clinical populations, few studies have been conducted on BPF in the non-clinical population. BPFs are far more widespread than BPD so much so that non-clinical populations may also suffer from borderline personalities, which may result in problems such as violence, poor academic performance, and

addictions (Fonseca-Pedrero et al., 2011). This type of personality can be explained by the interaction between hereditary, social, and psychological factors, as well as unstable family environments, parental pathology, and inappropriate parenting styles. According to the literature, emotional schemas have gained strong attention in developing borderline personality (Daros & Williams, 2019).

The term "Emotional Schema" refers to a set of beliefs, interpretations, evaluations, and strategies a person has regarding his or her own emotions or the emotions of others (Leahy et al., 2019). This schema includes fourteen dimensions such as incomprehensibility, nonacceptance, simplistic views, low expression, overly rational, loss of control, low consensus, duration, guilt, invalidation, devalued, numbness, rumination, and blame (Veilleux et al., 2021). The negative appraisal of these feelings may lead to maladaptive coping methods such as avoidance, drinking, worrying, etc.

According to many theorists, a borderline personality patient is unable to identify, clean, and integrate his and others' emotions. As a consequence, instead of behaving or coping effectively, he resorts to impulsive and self-destructive actions as a means of escape (Kanwal & Kazmi, 2022). It is due to this difficulty borderline personality patients have in integrating their emotions and others making it difficult to discriminate themselves from others, and not be able to separate their thought and emotional processes from those of others (Jabr, 2021).

It is important to note that systemic approaches refer to the differentiation of self as a person's ability to distinguish his intellectual and emotional processes from those of others when explaining the origins of some personality features (Hainlen et al., 2016). Differentiation of self involves an individual's ability

to distinguish his intellectual and emotional processes from those of others, as well as the ability to maintain his feelings and thoughts under close and intimate relationships (Calatrava et al., 2022). The differentiated person has a clear sense of who he or she is and is able to direct and control his or her emotions in tense and emotional situations (Dolz-del-Castellar & Oliver, 2021). A person who is not differentiated, such as a borderline personality, has difficulty in forming a fixed identity, is unable to regulate their emotions, and is at risk of rejection (Bagheri & Khodai, 2021). As a result of impaired mentalization, the person is unable to understand his own thoughts and emotions as well as those of others (Wang et al., 2021).

Mentalization is also crucial in determining personality features as it is the ability to comprehend and recognize the inner states of oneself and others (Tanzilli et al., 2021). A person with this ability is able to gain a deeper understanding of themselves and others (Wagner-Skacel et al., 2022). The ability to mentalize is the key to self-regulation and emotions (Schwarzer et al., 2021).

As a result of above-mentioned issues, we found out there is a gap in addressing mediating role of self-differentiation and mentalization between emotional schemas and BPF. To the best of our knowledge, the most recent studies closely related to the current research are discussed in the following paragraphs.

Although there have been numerous studies on BPD (D'Aurizio et al., 2023; Waite et al., 2024), studies aimed at BPF were rare. Contrary to BPD, BPFs are also observed in non-clinical populations. BPD is easier to diagnose than BPF, and numerous studies have been conducted on its development. Consequently, it is essential to study BPF in normal people,

particularly students, since they face a wide range of problems, including academic, occupational, social, and self-harm issues.

One example of studies in the field is a study of Esmaealian et al. (2022) which explored the association between BPF, early maladaptive schemas, and schema modes using a network analysis of 989 Iranian undergraduate students (Esmaeilian et al., 2022).

In another study in Iran by Vahidi et al. (2021), the relationship between mentalization and borderline personality was investigated in adolescents with the mediating role of emotion regulation. They found that BPFs were significantly associated with mentalization, emotion regulation, and emotional regulation. Emotion regulation difficulties mediate mentalization and BPF. BPF in adolescents is marked by a deficit in mentalization and emotional dysregulation (Vahidi et al., 2021).

In another study by Hope et al. (2018), in a cross-sectional study of 328 university students (non-clinical sample), they assessed LOC, BPF, depression, and anxiety, as well as difficulties in emotion regulation and cognitive emotion regulation as potential mediators (Hope et al., 2018). In studies such as those above, target groups usually were BPD instead of focusing on BPFs. Additionally, most of the research have been conducted in clinical populations rather than non-clinical ones. It is important to note that there has been no research using a structural equation model to investigate the impact of emotional schemas with the mediating role of self-differentiation and mentalization on BPF in a non-clinical population.

It is the purpose of this study to examine the relationship between emotional schemas and BPF based on the mediating

role of self-differentiation and mentalization. This study was conducted in response to the problems mentioned above and due to the lack of research into BPF in the normal population. It was aimed at answering the question of whether emotional schemas, mediated by self-differentiation and mentalization, could predict BPF in the normal population. Based on the hypothetical model depicted in Figure 1, we are able to determine a relationship between variables for which no research has been conducted.

Figure 1 illustrates that emotional schemas related to borderline personality features through the mediating roles of self-differentiation and mentalization.

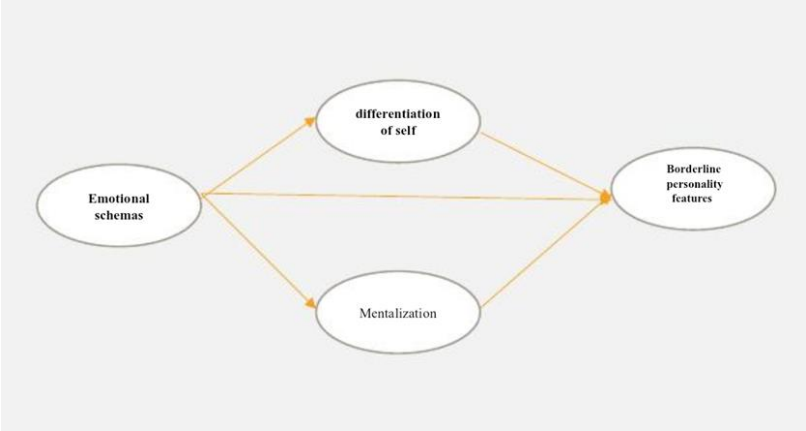

Figure 1. The conceptual model of the research

Method

This research was basically descriptive-correlational in both data collection and method, which involved Structural Equation Modeling (SEM).

The research data were analyzed using SPSS22, Lisrel 8.50, and Mplus 7 software, and the significance level was set at 0.05. In addition to SPSS22 being the best available software for checking descriptive and inferential statistics, Lisrel 8.50 and Mplus 7 are very suitable for obtaining path analyses, structural equations, and confirmatory factor analyses as well.

The ethical number of this study was approved by the Kharazmi university ethical committee on the 24\10\2023 with the number of IR.KHU.REC.1402.049. All participants participated in this study voluntarily, with full consent and knowledge. The informed consent form is attached to the Appendix files.

The purpose of this study was to investigate whether differentiation of self and mentalization played a mediating role in the relationship between emotional schemas and borderline personality features. Study participants were students enrolled at Kharazmi University in 2023. A sample of this research was collected using the convenience sampling. Due to the possibility of dropping out of the sample, 250 students were selected in a convenience sampling, after collecting and reviewing the questionnaires of eight participants, they were removed from the research due to the outliers of the data, and finally, 242 questionnaires were analyzed. There were 68 men (28.1%) and 174 women (71.9%) who participated in this study. Among the boys, the average age was 22.79 years and the standard deviation was 2.36 years, whereas among the girls, the average age was 21.72 years and the standard deviation was 2.73 years. In terms of education, 138 individuals (57%) had a bachelor's degree, 63 individuals (26%), 11 individuals (4.5%) had a doctorate, and 30 others (12.4%). Furthermore, 211 individuals (87.2%) were single, and 31 individuals (12.8%) were married.

Instruments

Borderline Personality Scale

By adapting the edited version of this test to meet the diagnostic and statistical criteria of the DSM, Mohammedzadeh, Guderzi, Tagvi, and Molazadeh (2005) added 20 items fulfilling the DSM diagnostic and statistical criteria, including hopelessness, impulsivity, and dissociative and paranoid symptoms associated with stress, which are borderline personality features. Additionally, it measures normal people's use of the test. Twenty items are answered with yes or no. Mohammadzadeh et al. (2005) found the reliability of this questionnaire for the entire borderline personality scale and the subscales of despair, impulsivity, and dissociative and paranoid stress-related symptoms to be .84, .53, .72, .50, respectively, and with a Cronbach's alpha coefficient of .77, .64, .58, and .57 have reported (Mohammadzadeh et al., 2005).

Leahy Emotional Schema Standard Questionnaire

The emotional schemas scale was developed by Leahy in 2002 based on his schemas model as a self-report scale (Leahy, 2002). The scale consists of 28 items and is scored on a Likert scale of 1 to 6. There are 14 subscales within this scale (Incomprehensibility, Nonacceptance, Simplistic views, Low expression, overly rational, Loss of control, Low consensus, Duration, Guilt, Invalidation, Devalued, Numbness, Rumination, Blame). Hamidpour and Biranvand (2013) prepared the Persian version of this scale in Iran. A questionnaire's validity is determined by its content validity, according to Biranvand's (2013) research. Cronbach's alpha was .84 in Biranvand's (2013) research (Hamidpor, 2013).

Differentiation Of Self Scale

A 20-item scale has been developed based on the revised questionnaire of skowrn and Schmitt (2003). This questionnaire is scored on a six-point Likert scale from completely false to completely true. It consists of four subscales: I-position (IP), emotional reactivity (ER), emotional cutoff (EC), and fusion with others (FO). There is a high level of differentiation indicated by the total score in this questionnaire, where higher scores indicate a higher level of differentiation. This questionnaire was found to be 0.88 reliable by Drake (2011) utilizing Cronbach's alpha (Drake, 2011).

Reflective Performance Questionnaire

Reflective Performance Questionnaire (RFQ) was developed by Fonagy, Lawton, Moulton, Lee, Warren, Howard, Chai Nye, Fay Aaron, and Lavesk in 2016 to assess mentalization abilities (Fonagy & Luyten, 2009). A Persian version with 14 questions and two subscales was developed by Drogar, Fathi Ashtiani, and Ashrafi (2019) (Drogar et al., 2020). First, there is confidence (RFQ_C), and second, there is uncertainty (RFQ_U). It is scored using a Likert scale of seven points. According to this questionnaire, a higher score indicates a high level of mentalization. This questionnaire was found to be reliable based on Cronbach's alpha method of .88 for the confidence subscale and .66 for the uncertainty subscale.

Results

There are two types of statistics used in this study: descriptive statistics and inferential statistics. The following information relates to descriptive statistics. The descriptive indices for the research variables are presented in Table 1.

Table 1

Descriptive Indices of Research Variables

Variable	Dimensions	At least	Maximum	Average	Standard Deviation	Skewness	Kurtosis
Emotional Schemas	Distrust	2	12	59.6	24.2	31.0	53.-0
	Incomprehensibility	2	12	79.5	13.2	22.0	27.-0
	Guilt	2	12	81.5	46.2	19.0	53.-0
	Simplistic Views	2	9	66.4	66.1	30.0	65.0
	Devalued	2	12	20.5	04.2	55.0	11.0
	Loss of control	2	12	85.6	45.2	04.-0	50.-0
	Numbness	2	12	49.5	34.2	48.0	41.-0
	Rationality	2	12	58.8	43.2	47.-0	54.-0
	Continuity Of Feeling	2	12	06.7	09.2	18.-0	16.-0
	Poor Consciousness	2	12	08.7	33.2	14.0	50.-0
	Nonacceptance	2	12	50.6	94.1	06.0	26.0
	Rumination	2	12	71.8	91.1	12.-0	57.-0
	Low Expression	2	12	26.7	87.1	02.0	12.-0
	Blame	2	12	10.7	21.2	01.0	37.-0
	Total score	54	136	74.92	46.15	16.-0	41.-0
Differentiation Of Self	IP	9	36	90.24	83.4	31.-0	13.0
	FO	5	30	28.15	89.4	24.0	03.-0
	EC	3	18	86.10	90.3	05.-0	67.-0
	ER	6	33	57.17	43.5	07.0	29.-0
	Total score	31	109	62.68	82.13	04.-0	30.-0
Mentalization	Item 10	1	7	88.2	48.1	76.0	40.0
	Item 11	1	7	13.3	70.1	48.0	72.-0
	Item 12	1	7	90.2	40.1	61.0	01.0
	Item 13	1	7	21.3	52.1	32.0	43.-0
	Item 14	1	7	38.3	65.1	32.0	60.-0
	Total score	5	31	49.15	17.5	20.0	02.0
Borderline	Disappoint	7	14	93.10	16.2	21.-0	10.-1

Personality features	ment						
	Impulsivene ss	7	14	97.10	80.1	07.-0	81.-0
	Dissociative /paranoid symptoms related to stress	7	12	59.10	43.1	80.-0	28.-0
	Total score	22	40	50.32	40.4	25.-0	77.-0

As reported in Table 2, the correlation matrix and correlations of the variables examined in this study are presented. According to this Table, all correlations are within acceptable ranges (r≥ .568 - .426). According to this Table, the following information is revealed:

- The association between emotional schemas and BPF is positive and significant.
- There is a negative and significant association between emotional schemas and differentiation of self and mentalization.
- Differentiation of self and mentalization are positively associated.
- There is a negative and significant association between the differentiation of the self and BPF.
- The relationship between mentalization and BPF is negative and significant.

Table 2

Correlation Matrix of Latent Variables in the Research

	Variables	1	2	3	4
1	Emotional Schemas	1			
2	Differentiation Of Self	**-555.0	1		
3	Mentalization	**-426.0	**314.0	1	
4	Borderline Personality Features	**568.0	**-447. 0	**-0.405	1

** **P <0.01**

As a result of the factor analysis, the components with a factor load lower than 0.30 were removed from the total indicators. There are five components in emotional schemas, including a simplistic view, devalued, overly rational, low expression, and blame. The differentiation of self includes a component, of emotional cut, in mentalization including items; it ranged from one to nine. Since all of the components in the variable of borderline personality features had a factor load greater than .30, they were selected as Observed variables.
The next step involved reviewing the assumptions of structural equation modeling. Among these assumptions, sample size, outlier data, univariate normality, multivariate normality, and multiple collinearities were examined.
It was recommended that a sample size of 200 to 300 people be used in this study, and after removing outliers, 242 individuals

were examined, which was a satisfactory sample size. To identify multivariate outliers, Mahalanabis distances, which can be defined as the distance between two distributions, were calculated for each individual, resulting in the exclusion of eight participants. For checking the normality of a single variable, the skewness and kurtosis of each obvious variable were calculated. There was a skewness range of -.80 to .76 in the conceptual model, and a kurtosis range of -10.10 to .65 in the observable variables.

Chou and Bentler considered the cutoff point of ±3 as appropriate for the skewness value (Chou & Bentler, 1995). In structural equation modeling, kurtosis values greater than ±10 are generally considered problematic. As outlined in Table 1, the values for the skewness and kurtosis of the variables support the presumption of univariate normality. To check the normality of the multivariable, a relative multivariate skewness quantity was calculated, and its value for the conceptual model was 1.269. According to Cho and Bentler (1995), multivariate normality is observed when this Indices is not more than three. It was determined that there is no multiple collinearities between the obvious variables by checking the correlation matrix between them, which indicated the absence of multiple collinearity. A hypothetical model of the current research has correlation coefficients within the range ($.642 \geq r \geq -.507$). As a result of multiple collinearity, correlation coefficients higher than .85 create problems in the correct estimation of the model (Kline, 2023). Therefore, it has also been assumed that multiple collinearity does not exist (Kline, 2023).

According to Table 3, the fit indices for the measurement model are appropriate. Thus, except for GFI, whose value is near acceptance, all other indicators are within acceptable limits.

The GFI, however, is greatly influenced by the sample size and thus cannot be used as a valid indicator for assessing the model's fit. Therefore, it can be concluded that visible variables can measure their immediate correlates.

Table 3

Fit Indices

Goodness of Fit	Cut-Off Value	esultsیR
P-Value for Chi- Square Fit Test(χ^2)	> .05	365.33
Degrees of Freedom(DF)	-	164
χ^2/df	< 5	2.22
Normed Fit Indices(NFI)	≥.90	.90
Comparative Fit Indices(CFI)	≥ .90	.93
Incremental Fit Indices(IFI)	≥ .90	.93
Goodness of Fit Indices(GFI)	≥ .90	.89
Root Mean Square Error of (RMSEA) Approximation	≤ .08	.071
rdized Root Mean Square Residual (SRMR)	≤ .08	.076

In addition, the measurement model of the research with standard coefficients is presented in Figure 2, and the non-standard coefficients, standard coefficients, and T values for each obvious variable in the measurement model are provided in Table 4.

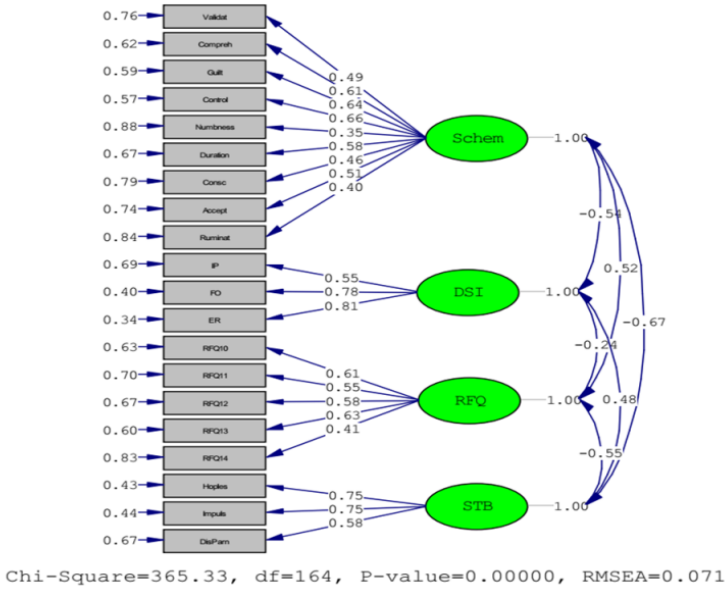

Figure 2. Research measurement model with standardized coefficients

Table 4

Unstandardized Coefficients, Standard Coefficients, and T-Values of Obvious Variables in the Measurement Model

Variable	Dimensions	Unstandardized coefficient	standard coefficient (Factor Loadin)	T-value
Emotional Schemas	Distrust	10.1	49.0	40.7
	Lack Of Comprehensibility	31.1	61.0	61.9
	Feel Guilty	57.1	64.0	11.10
	Lack Of Control	62.1	66.0	49.10
	Numbness	81.0	35.0	05.5
	Continuity Of Feeling	21.1	58.0	94.8

	Poor Consciousness	07.1	46.0	81.6
	Rejection	99.0	51.0	74.7
	Rumination	76.0	40.0	85.5
Differentiation Of Self	IP	68.2	55.0	43.8
	FO	81.3	78.0	30.12
	ER	42.4	81.0	92.12
Mentalization	Item 10	91.0	61.0	83.8
	Item 11	94.0	55.0	88.7
	Item 12	81.0	58.0	29.8
	Item 13	97/0	63/0	25.9
	Item 14	68.0	41.0	75.5
Borderline Personality Features	Disappointment	63.1	75.0	97.11
	Impulsiveness	35.1	75.0	85.11
	Dissociative/paranoid symptoms related to stress	83.0	58.0	74.8

According to the results of the bootstrap test presented in Table 5, emotional schema significantly influences borderline personality features through the mediation of self-differentiation (p< .05= .098). Furthermore, the relationship between emotional schemas and BPF is also significant through the mediation of mentalization (p< .01= .150). The sum of indirect coefficients is 0.248, which indicates a good fit. The results depicted in Figures 3 and 4 indicate that all paths of the model are significant. Furthermore, the coefficients used to determine the endogenous variables are optimal. The results of the study, in general, indicate that 53% of BPF can be explained by the current model.

Additionally, the independent variable of emotional schemas explains 29% of self-differentiation and 27% of mentalization, respectively; thus, the structure of the research model fits optimally. On the other hand, emotional schemas as exogenous variables have a standard coefficient of -.54 (t-values = -5.72) and -.52 (t-values = -5.48). There is a significant effect of the mediation of self-differentiation and mentalization. The final dependent variable of BPF is significantly influenced by emotional schemas as exogenous variables with a standard coefficient of .42 (t-values = 3.88). Additionally, self-differentiation and mentalization were found to be mediating variables for BPF with standard coefficients of -.18 (t-values = -2.04) and -.29 (t-values = -2.98).

Table 5

Bootstrap Test Results for Mediating Effects

independent variable	Mediating variable	The dependent variable	Standard coefficient	Standard error	Low range 95%	Above range 95%	Significance level
Emotional Schemas	Differentiation Of Self	Borderline Personality Features	.098	.060	.001	.197	.048
Emotional Schemas	Mentalization	Borderline Personality Features	.150	.056	058.	.241	.007
Sum of indirect coefficients			.0248	.085	248.	.085	.109

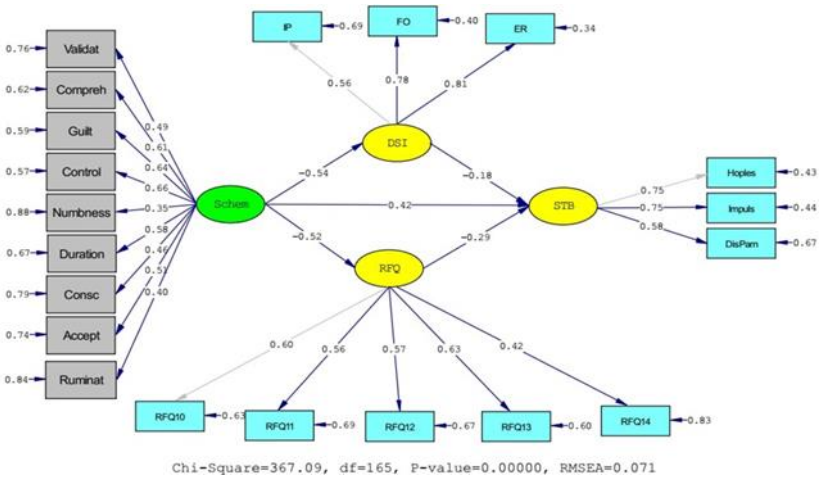

Figure 3. The model of the research along with the standard coefficients of the model

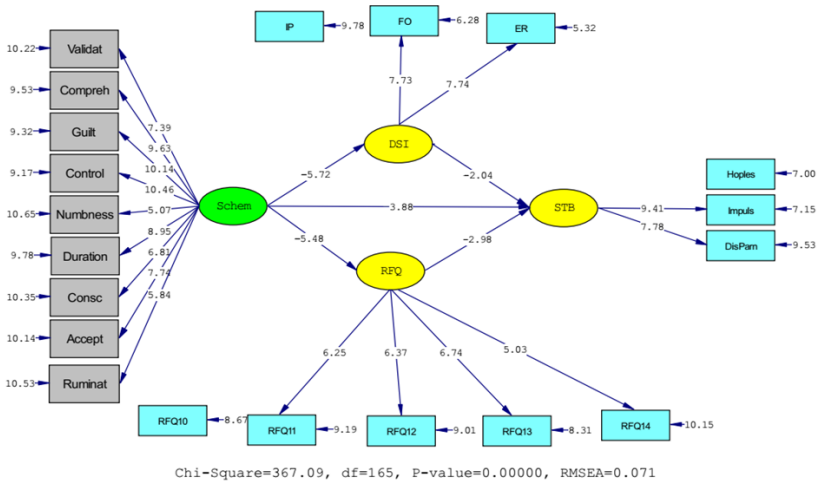

Figure 4. The model of the research along with the critical values of T

Discussion

The purpose of the present study was to determine whether emotional schemas and BPFs are mediated by self-differentiation and mentalization in non-clinical populations. As an important point, BPFs were examined rather than BPD and that a non-clinical population was examined rather than a clinical population. This study examined 242 normal students between the ages of 18 and 25 using appropriate questionnaires. In Figure 2, one can see the final research model. These results indicate that the current model can explain 53% of borderline personality features. In addition, the independent variable of emotional schemas is able to explain 29% of self-differentiation and 27% of mentalization. Thus, the research structure fits optimally. As a result of self-differentiation and mentalization mediating the relationship between emotional schemas and BPF, Table 5 and Figure 4 demonstrate direct and indirect effects of emotional schemas. According to Table 2, self-differentiation and mentalization are significantly correlated with BPF. It is possible for a low mentalization level and a low level of self-differentiation to contribute to the development of BPF. In the final analysis, some components of emotional schemas have been removed as they have a factor load of less than 0.30 and were selected as observable variables of emotional schemas as mistrust, incomprehensibility, guilt, loss of control, numbness, persistence of feelings, low consciousness, non-acceptance and ruminating. According to Figure 4, all of these components are non-adaptive, and they have a positive and significant association with BPF. Therefore, whenever emotional schemas are mentioned in the following, they refer to emotional schemas with the components stated. In order to explain the results, we can state that emotional schemas are fundamental mental

structures that are associated with a variety of emotional disorders, including BPD. Since borderline personality is characterized by emotional dysregulation, unstable relationships, and impulsivity, emotional schemas play a significant role in the development and maintenance of borderline personality since they are associated with difficulties in self-differentiation and mentalization.

As presented in Table 5 and Figure 4, emotional schemas are associated with BPF in the non-clinical population through the mediating role of their self-differentiation. As a consequence of emotional schemas, self-differentiation can be reduced, and low self-differentiation can generate borderline personality. Nevertheless, emotional schemas alone are directly related to the development of borderline personality. Indeed, emotional schemas are related to their differentiation in terms of emotional reactivity and emotion regulation. Consequently, people with incompatible emotional schemas have difficulty regulating emotion as well as fusing thoughts and emotions due to inconsistent emotional schemas causing people to recognize or not recognize emotions, resulting in difficulties in recognizing emotions in people with incompatible emotional schemas. This is also in line with the research of Duch-Ceballos et al., (2021) (Duch-Ceballos et al., 2021). When a person lacks self-differentiation, he is unable to enter into intimate relationships on an independent basis, as he does not have an independent identity. When someone lacks self-differentiation, he cannot enter into intimate relationships. There is a strong correlation between this feature and borderline personality. People with BPF often have difficulty maintaining healthy intimate relationships, having an independent identity, and generally

dealing with identity issues. People with low differentiation have difficulty separating cognition from emotion, and they are generally unable to differentiate between their cognition and emotions. This finding is supported by the research of Mooney-Reh (Mooney-Reh, 2011).

Further, based on Figure 4 and Table 5, this study found that mentalization mediates the relationship between emotional schemas and BPF in the non-clinical population. People who did not experience a secure attachment in childhood were not allowed enough freedom and security to explore their environment, so they were unable to understand and interpret others' intentions and behaviors. Having an inappropriate childhood environment leads to the creation of inconsistent emotional schemas, and as a result, children are unable to comprehend and interpret their own and others' mentality. Regarding the theory of mind, when a child is born, he does not have the ability to recognize meaningful internal states, but upon reflecting emotions by caregivers, he is able to develop this understanding, which is in agreement with the research of Gergely and Watson (1966) (Gergely & Watson, 1996). In the absence of a caregiver who is capable of labeling the baby's emotions and reflecting them back to him like a mirror, the baby will not be able to understand and deal with his emotions. In other words, the mentalizing capacity is guided by the emotional schemas. Thus, if the emotional schemas are incompatible, the mentalization capacity will be compromised. Mentalization is required to strengthen effective social cognition, communication skills, and adaptive interpersonal relationships, which are the main features of borderline personality, as documented in the research of Sharp and Kalpakci (2015) (Sharp & Kalpakci, 2015). Based on these findings, the findings of this study are in

line with those of Condino et al. (Condino et al., 2022). Childhood maltreatment, specifically emotional abuse and neglect, which leads to unhealthy emotional schemas and mentalization problems, is a major contributing factor to BPD.

As a significant mediator in the relationship between emotional suppression, simplification of emotions, disconfirmation, and uncontrollability of emotional schemas have been identified. Accordingly, emotional schemas contribute to BPD symptoms, and this study is in accordance with previous research by Leahy (2011), Sabri et al. (2021), and Faustino and Vasco (2021) (Faustino & Vasco, 2021; Sabri et al., 2021). Several aspects of emotional schema have been identified by Leahy et al. (2011) such as the lack of understanding, approval, numbness, blame, simplicity, control, futile values and rationality, as well as Sabri et al (Leahy et al., 2011). study demonstrated that duration and agreement are predictors of BPF (Sabri et al., 2021). In this study, it was found that mistrust, ignorance, guilt, simplistic views, devalued, loss of control, numbness, rationality, continuity of feeling, low consciousness, non-acceptance, rumination, weak expression, and feeling ashamed of emotional schemas have indirect and significant correlations with BPF.

According to the results of this article, self-differentiation and mentalization are crucial for determining the relationship between emotional schemas and borderline personality features in normal samples. These important issues provide key insight into and explanations of individual psychology and personality differences studied in non-clinical populations. Researchers and psychologists can use these findings to develop better understanding of the social and psychological effects on human

personality, which will be useful for developing counseling and intervention programs in this area. Thus, the study can contribute to the development of psychological knowledge.

Future research can investigate the role of social and cultural factors. In the current research, the focus was on psychological factors, and it is suggested to explore cultural and social factors as well. For example, gender, nationality, etc. are among these factors.

Although this research can be helpful in the treatment policies, in the sense that more emphasis should be placed on borderline personality features in health institutions, it is better to carry out laboratory research to investigate the role of various psychological, cultural, and social factors in revealing borderline personality features.

Since this issue is new in Iran and there has not been much research in this field in general, according to the previous research, the sample size of this research has been 242 people; in subsequent research, a larger volume should be studied so that we can make a more accurate generalization.

Ethical Approval and Consent to participate

The participants in this study provided informed consent and participated voluntarily. Kharazmi university's ethics committee approved the study's ethical number, IR.KHU.REC.1402.049, on 24/10/2023.

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