

## The Role of Emotional processing in Predicting Adaptability in Female Students Diagnosed with Oppositional Defiant Disorder

\*Soheila Najafi<sup>1</sup> and Maryam Sedghi<sup>1</sup>

<sup>1</sup> Islamic Azad University, Ardabil, Iran

Gönderilme Tarihi: **Mayıs 2018** Kabul Tarihi: **Haziran 2018**

### Abstract

*This study aimed to determine the Emotional processing in the prediction of adjustment in female students with symptoms of Oppositional Defiant Disorder. In this descriptive-correlational study, the population consisted of all female high school students with symptoms of Oppositional Defiant Disorder in the city of Ardabil. The sample was a group of 180 female high school students with high scores on the Oppositional Defiant Disorder Checklist. Data were collected through the Emotional processing - Short Form, the Adjustment Inventory for School Students and the Oppositional Defiant Disorder Checklist and analyzed via Pearson correlation coefficient and multiple regression analysis. The results indicated a significant relationship between Emotional processing and the adjustment level of students with Oppositional Defiant Disorder ( $r=-0.32$ ,  $p>0.001$ ). Furthermore, the results of multiple regression analysis showed that %7.7 of variances in the students' adjustment level could be predicted by their Emotional processing indicating the low predictive power of Emotional processing for the determination of the adjustment level of students with Oppositional Defiant Disorder.*

**Keywords:** Education philosophy, human nature, reform, change.

### INTRODUCTION

The Oppositional Defiant Disorder (ODD) is one of the most common disorders of childhood and adolescence and one of the main reasons that children are referred to psychology clinics and counseling centers. The ODD is diagnosed when the symptoms of Conduct Disorder (CD), especially too much aggressiveness, are not observed in a child. Children, mostly boys, with ODD barely blame themselves for their social maladjustment. These children claim that irrational requests made by others are the cause of their oppositional behaviors (DSM-5, translated by Seyyed Mohammadi, 2014).

ODD is more common among boys before the age of puberty; thereafter, its ratio is expected to be the same in both sexes. In late childhood, environmental impacts or diseases such as mental retardation may cause oppositional behaviors such as defensiveness, anxiety and loss of self-esteem. Children with ODD usually refer to their oppositional behaviors as a logical reaction to irrational conditions.

\*Sorumlu Yazar E-mail: soheila.najafi@gmail.com

Orcid ID:

It seems that ODD inconveniences people around a child more than the child itself. The experts believe that there are probably two types of ODD: one is very much like the CD and includes specific symptoms such as fighting and bullying while the other is not very much like the CD and includes less aggression and antisocial traits (Pour Afkari, 2002). People with ODD are normally characterized by harassment of family members and low academic achievements. Moreover, destructive behaviors, aggression and delinquency are other features of ODD in adolescents. ODD is related to other problems including Attention-Deficit/Hyperactivity Disorder (ADHD), social isolation (Kone, 1997), depression, anxiety and school refusal, Personality Disorders, decreased psychological functioning (Harpold, et al., 2007), decreased pathological functioning, Impulse Control Disorder (ICD) and drug tolerance. ODD in childhood may lead to CD and antisocial behaviors in adulthood. In other words, ODD is related to childhood and adulthood mental disorders as well as environmental and genetic factors (Boylan, et al., 2007).

Emotional processing is among the variables that seem to be linked with oppositional defiant disorder (ODD). Rachman (1980) considers emotional processing as a process through which the emotional conflicts are absorbed and then declined, so that experiences and behaviors could take place without conflicts. Unlike Rachman, some believe that emotional processing includes integrating new information with an existing memory structure that can decrease or increase the emotional response. Emotional processing takes place automatically during life and it is related to the life experiences. Presence of problem in emotional processing leads to intensity in behavioral and emotional problems, due to which the adaptability of the individual decreases. Children diagnosed with ODD are generally weak in interpersonal relationships, retain attention problems and deficiency in executive functions and generally lack the cognitive, social and emotional skills required for conducting requests of the adults and this factor leads to a decrease in their adaptability (Hommerson et al., 2006). Results from suggested that adolescents diagnosed with ODD show a lower function in emotional processing and decoding social information in comparison with the normal groups. In a study, Graeme et al. (2015) showed that presence of conduct disorder (CD) leads to a decrease in proper process of emotional and nervous progressing in the individuals.

Garcia (2010) expressed that individuals diagnosed with anxiety performed significantly weak in recognition of facial emotional expression, comparing to the normal individuals. Garcia et al. (2011) concluded that the emotional processing process in individuals addicted to alcohol and drugs is damaged and these individuals face problems in recognition of facial emotional expression and low emotional intelligence is among the characteristics of these individuals. In their study, showed that problem in regulating emotions could be a significant factor in anxiety disorders. In their study, showed that emotional failure increases panic anxiety disorder.

In a research entitled “The Relationship between Emotional and Nervous Progressing and Recognition of Facial Emotional Expression in Adolescents Diagnosed with CD (Correlated to ODD), Graeme et al. (2015) indicated that there is a relationship between the state of emotional and nervous progressing and recognition of facial emotional expression response in adolescents diagnosed with CD. In their conclusion they expressed that the presence of CD that leads to anger, aggression and deception in the individual leads to a decrease in proper emotional and nervous progressing in such individuals.

Margaret et al. (2015) studied the relationship between emotional processing and emotional adaptation among adolescents. In this research, 151 adolescents were studied in the form of a longitudinal study. The research results suggested that there is a relationship between emotional processing and emotional adaptation and emergence of problematic behaviors, so that low emotional processing accompanied high anger, low regulation, problematic behavior and lower social-emotional behavior.

All in all, this research tries to determine whether emotional processing has a significant role in predicting the adaptability of female students.

## **METHOD**

This descriptive-correlational study was conducted on a population of 3947 female high school students in the 2013-2014 school year. Sampling in this study was done In two stages:

- 1) Six high schools were selected from district 1 of Ardabil and 600 students were investigated through the ODD Checklist.
- 2) Out of the whole 266 identified students with ODD symptoms (cutoff score=40), 180 students were randomly selected for the analysis.

### ***Data Collection Tools***

***The Oppositional Defiant Disorder Checklist (ODD Checklist):*** The ODD Checklist has been developed based on the DSM-IV-TR classification and related symptoms. This 12-item checklist is answered and scored based on a 5-point Likert scale, including the options of very little, little, moderate, very and very much. Cronbach's alpha and parallel-form reliability of this checklist have been reported as 0.79 and 0.75 respectively.

***The Adjustment Inventory for School Students (AISS):*** The 60-item AISS has been developed by Sinha and Singh (1993) to assess students' adjustment in three domains of emotional, social and educational. The Persian version of AISS has been prepared by Karami (1998). Each of the three subscales of emotional adjustment, social adjustment and educational adjustment is measured through 20 items. Each item is answered and scored based on a 2-point scale of 0 (adjustment) and 1 (maladjustment). The correlation coefficient between the AISS scores and managers ratings has been reported 0.51. In Iran, both content and face validity of this inventory have been confirmed by three professors in the fields of counseling, psychometrics and statistics. The parallel-form reliability of the AISS for the total scale has been reported 0.95; for the emotional adjustment, 0.94; for the social adjustment, 0.93; and for the educational adjustment, 0.93 (Karami, 1998).

***Emotional Processing Scale (EPS):*** The Emotional Processing Scale (EPS) of Baker (2007) is a 25-item self-reporting scale that is used for measuring the emotional processing styles. Each item is scaled in a 5-point Likert scale (Strongly disagree to strongly agree). This scale includes 8 components (harassment, suppression, lack of awareness, lack of control, detachment, avoidance, disturbance and external factors). The psychometrics on the revised version, especially in relationship with the distinguishing the difference between the groups, is promising. The Cronbach's alpha coefficient and retest of this scale were reported to be 0.92 and 0.79, respectively. In order to determine the reliability of the test, this scale was correlated with emotion regulation. The results suggested that there is a negative and

significant correlation between these two scales. ( $r=-0.54$ ) In the basic studies carried out on 40 students, the reliability was determined to be 0.77. The Cronbach's alpha was calculated to be 0.95 (Lotfi, 2010).

**Table 1.** Emotional Processing Mean and Standard Deviation

Emotional Processing	mean	Standard Deviation
Emotional suppression	14.02	5.14
Emotional Emotion	15.75	3.76
Positive emotional experience	13.76	4.48
Unprocessed emotions	14.56	4.08
Emotional Avoidance	16.77	4.47
Total	74.87	14.75

As it could be observed in Table 1, the emotional processing mean (and standard deviation) in students diagnosed with ODD is 74.87 (14.75).

## INFERENCE FINDINGS

**Table 2.** Correlation Coefficient between Students' Emotional Processing and Adaptability

Sov	Statistics	Emotional adjustment	Social adjustment	Academic Adjustment	Compatibility
Emotional suppression	correlation coefficient	-0.086	-0.241**	-0.177**	-0.219**
	significance level	0.254	0.001	0.018	0.003
Emotional Emotion	correlation coefficient	-0.118	-0.084	-0.118	-0.069
	significance level	0.115	0.264	0.115	0.360
Positive emotional experience	correlation coefficient	-0.254	-0.237	-0.196**	-0.304**
	significance level	0.001	0.001	0.008	0.000
Unprocessed emotions	correlation coefficient	-0.095	-0.011	-0.129	-0.094
	significance level	0.208	0.882	0.084	0.211
Emotional Avoidance	correlation coefficient	-0.080	-0.061	-0.137	-0.047
	significance level	0.288	0.418	0.067	0.530
Emotional Processing	correlation coefficient	-0.139	-0.150*	-0.229**	-0.226**
	significance level	0.063	0.045	0.002	0.002

As it could be observed in Table 2, there is a negative and significant relationship between emotional processing and adaptability ( $r=-0.226$ ,  $p<0.01$ ).

**Table 3.** Multiple Regression Analysis Results for Components of Emotional Processing in Predicting Students' Adaptability

Model	SS	df	MS	F	P			
regression	1156.074	5	231.215					
Remaining	10007.591	173	57.847	3.997	0.002			
Total	11163.665	178						
Forecast variables	R	RS	ASR	Non-standard coefficients B	SE	standard coefficients Beta	p	t
Constant				16.888	3.145	-	0.000	5.037
Emotional suppression	0.219	0.048	0.042	0.336	0.113	0.219	0.003	2.979
Emotional Emotion	0.220	0.048	0.037	0.046	0.159	0.022	0.771	0.292
Emotional experience	0.316	0.100	0.085	0.475	0.150	0.269	0.002	3.175
Unprocessed emotions	0.316	0.100	0.079	0.019	0.149	0.010	0.897	0.130
Emotional Avoidance	0.322	0.104	0.078	-0.120	0.147	-0.068	0.417	-0.814

In order to determine the role of any of the emotional processing components as a predicting variable and students' adaptability as criterion variable in the equation, the components were analyzed in multiple Regression equation. As it could be observed in Table 3, the observed F value is significant and 10.4 percent of the variance of students' adaptability is determined by the components of emotional processing. Considering the  $\beta$ -values, emotional suppression ( $\beta=0.219$ ) and emotional experience ( $\beta=0.269$ ) could predict the changes related to the students' adaptability.

## CONCLUSION

The objective in this research was to determine the role of emotional processing in predicting adaptability of female students diagnosed with ODD. The findings of this study are discussed below.

The main research question was to determine whether there is a relationship between emotional processing and students' adaptability. Results derived from data showed that there is a negative and significant relationship between emotional processing and social adaptability. ( $p<0.01$ ) Hence, the research hypothesis is approved. The research findings are in accordance with the results from Petridis et al. (2004), Besharat (2008), Crinberg (2009), Garcia et al, (2011), Reilly et al. (2013) and Marchesi et al. (2014). To explain the above-mentioned findings, it could be expressed that individuals diagnosed with ODD retain a lower self-awareness due to the lower emotional processing and in fact, they lack a deep understanding of their emotions, and weak and strong points and are not able to evaluate, guide or control the events in their lives. This inability leads the individual to lack the required insight towards themselves and their environment and be unsuccessful in adaptability

with emotions, and this factor influences all aspects of adaptability in such individuals., since students with low motional processing could not survive negative emotions such as anxiety, depression and irritability, and confront more problems in life. In case they face such hardships, they cannot survive the difficult situations fast enough and they cannot reach emotional stability and desirable situations (golmen, 2000). As a result, they will not have a desirable emotional and social adaptability.

Additionally, in order to explain the latter, it could be said that, based on Rachman (1980), emotional processing is a process through which the emotional conflicts are absorbed and subsequently declined, so that the other experiences and behaviors could perform without conflict. In fact, the emotional processing process is in accordance with adaptability, so that decrease in emotional problems and conflicts could help the individual with alignment with the society, proper interactions and relationships with others, and adaptation with the physical and mental environment. According to Barlow (1992), adaptability includes a useful and effective behavior of the individual in adapting with the physical and mental environment and influencing the environment so that they can change the environment properly. Moreover, adaptability is the complete balance between the organism and the environment and high emotional processing enables the individual to use their positive mood and tolerance level in confronting others so that they can perform the best reaction and behavior with them and reach a desirable emotional adaptability. This adaptability paves the way for other aspects of adaptability.

Ultimately, the last part of the research findings was related to this question that whether emotional processing could predict adaptability and its components in female students diagnosed with ODD. The results from this research suggested that these variables were able to predict 5 percent of educational adaptability, 3.9 percent of social adaptability, 7.4 percent of emotional adaptability and 7.7 percent of the total adaptability.

Additionally, emotional processing is considered as a positive variable since it helps the individuals' experiences and behaviors to form without conflicts in a more adaptable path. Hence, presence or lack of his process has a determining role in adaptability aspects of individuals. Individuals diagnosed with ODD have issues in identifying and describing feelings and the difficulties in identifying and describing feelings leads to failure in the individual's cognitive and emotional processing system. The individual becomes desperate in cognition and the cognitive style of the individual is limited to objective, pragmatic and reality-oriented thinking. These students limit their attention and basic activities to the objective affairs and do not consider their or other feelings and this leads the students diagnosed with ODD have a high level of emotional failures. Consequences of emotional failures are beyond intrapersonal problems and lead to disorders in interpersonal issues, since the individual diagnosed with emotional failure shows deficiencies in understanding and reacting towards other individuals' emotions. Their ability for sympathy is disrupted (Varma, 1994). Moreover, such individuals experience deep cognitive in capabilities as well. Individuals retaining emotional failures are generally objective and rational individuals, lacking sympathy, isolated in interpersonal relationships with weak imaginative lives and these factors influence their adaptability.

## REFERENCES

- Barlow, Richard E.; Irony, Telba Z. Foundations of statistical quality control. Current issues in statistical inference: Essays in honor of D. Basu, 99--112, Institute of Mathematical Statistics, Hayward, CA, 1992. doi:10.1214/lnms/1215458841. <https://projecteuclid.org/euclid.lnms/1215458841>
- Besharat, M.A (2008). Emotional deficits and defensive styles. *Journal of Research on Principles of Mental Health*, Year 10 (3), 181-190.
- Pourafkari, N. (1994). A comprehensive English-Persian psychology and psychology dictionary. first volume. Tehran: Farhang Contemporary Publishing.
- Pi, Varma. (1994). Inconsistency and children's emotional and behavioral problems. Translated by Simin Hosseinian. (1995). Al-Zahra University Press.
- Saduk, B and Saduk and V. (2010). Habib Handbook of Clinical Psychiatry. Translation by Mohsen Arjmand, Farzin Rezaee, Nadia Faghani. (2011). Tehran: Arjmand Publication, Farda Generation.
- Saduk, B and Saduk, V. (2013). The fifth Diagnostic and Statistical Manual of Mental Disorders. Translation by Sayyid Mohammadi, Yahya. (2014). Tehran: Ravan publishing house.
- Lotfi, S. (2010). The role of social judgment and social processing in predicting the reactivity of women with social phobia. Master thesis, General Psychology, University of Mohaghegh Ardabili.
- Backer, R. (2007). *Development of Emotional processing*. *Journal of Psychosomatic research*, 10 (2), 167-178.
- Boylan, K., Vaillan, T., Boyle, M. & Szatmari, p. (2007). Comorbidity of Internalizing Disorder in Children with Oppositional Defiant Disorder. *Eur Child Adoles Psychiatry*, 16 (4), 484 – 494.
- Fashimpar, G. (1992). *An Evaluation of three parent training program*. The university of Texas at Arlington, in Partial fulfillment of the requirements for the degree of doctor of philosophy.
- Golman, J. (1995). *Emotional intelligence*. NewYork: BantamBooks.
- Graeme, F., Cindy, C., Hagan, L., Nicholas, D., Walsh, F. & Andrew, J. (2015). *Atypical Neural Responses During Face Processing in Female Adolescents With Conduct Disorder*. *Journal of Am Acad Child Adolesc Psychiatry*, 54(2): 677–687
- Hommersen, P., Murray, C., Ohan, J. & Johnston, C. (2006). *Oppositional Defiant Disorder Rating Scale: Preliminary Evidence of Reliability and Validity*. *Journal of Emotional and Behavioral*, 14(2), 28- 34.
- Karami, A. (1998). *Normalization of adjustment inventory for high school students*. Tehran: Sina Psychological Institute Publication
- Marchsic, G., Parggioc, O. & Tonnam, D. (2014). Premorbi-dalexithymia in panicdisonder ;acohorts udy. *Psychiatry Res*, 215(1), 141-5.
- Margret, R., Lisa, B., & Gunilla, B. (2015). *Emotion Processing, and Adaptation Emotionality in Children*. *American Psychological Association*, 13(2), 47- 56.
- Rachman, S. (1980). *Emotional processing*. *Behavior Resech and Therapy*, 18(1), 51-60.
- Sadock, B, G. & Sadok,V. A. (2003). *Synopsis of psychiatry philade lphia*: Lippincott williares wikins.