

## Investigating the Relationship between Alexithymia and Early Maladaptive Schema among University Students in Tabriz

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### Abstract

Alexithymia is a problem that shows itself in the emotional and cognitive functioning level and is known as the inability or failure to explain or understand the emotions. This study examined the relationship between early maladaptive schemas and alexithymia in a sample student. This study is descriptive correlational. Sample of 220 undergraduate students of Tabriz University were selected by stratified random sampling and they were administered by questionnaire Toronto alexithymia (TAS-20), and early maladaptive schemas Yang Short Form (YSQ-SF). Data were analyzed using Pearson correlation and simultaneous regression analysis. The results showed that the components of early maladaptive schemas, disconnection and rejection, impaired autonomy and performance, impaired Limits, directedness, and vigilance/inhibition have a significant positive relationship with alexithymia. Also, the findings of the regression analysis show that impaired autonomy and performance, over vigilance/inhibition, are predictors of alexithymia. Therefore, it is essential to predict early maladaptive schemas and treat people with alexithymia.

**Keywords:** Alexithymia, Early maladaptive schemas, students

### Introduction

Alexithymia is a known syndrome in the field of emotional disorders. The term alexithymia was coined in 1973 by Sifneos and derived from the Greek root of Alexi (Lack of words) and thymus (emotion) and show an inability to express emotions (Lesser, 1985 cited in Ghadirisourmanabadi et al,2015). Features of alexithymia comprise inability of symbolic thinking, lack of imagination, emotional coldness, objectively words and thoughts related to external events (Gunzelmann, Kopfer, & Braehler, 2002). People with alexithymia interpret normal bodily agitation as big, physical symptoms of emotional arousal as bad, show emotional distress through bodily complaints and with regard to therapeutic interventions, they are also seeking treatment for physical symptoms (Tylor, Parker, Bagby, Acklin, 2002, cited in Besharat et al., 2008).

People with this trait have problems in understanding the emotional states of others and in interpersonal relationships, demonstrate limited empathy (Bern Baum & Prince, 1979; Hashemi et al., 2012). Childhood experiences with those who fail to show and express their emotions, or do not recognize the evolving and shaping the child's emotions and behave poorly with the emotions of a child can have a profound effect on emotion regulation in the next stages of life (Meins, Harris, Waller, Lloyd, 2008; Humphreys, Wood, Parker, 2009).

On the other hand, Aaron T. Beck (1967, 1976), more than 30 years ago, in his theory about emotional disorders emphasized on cognitive schemas functions as the most basic factors. According to this theory, schemas play a major role in creating and sustaining mental and emotional problems and also recurrence of disease (Riso, Toit, Stein, Young, 2007: 221-223 Translator,

Mouloudi, Ahmadi, 2011). Martin and Young (2010) believed that schemas are the major determinants of people's thinking, feeling, behaving, and socially interacting. One of the proposed theories in the field of schemes, is Young's early maladaptive schema theory. According to Young (2003), early maladaptive schemas are pervasive and deep-rooted patterns. They are themes of memories, emotions, cognitions, and feelings about the body and communicating with others, which are formed in childhood and adolescence and are also highly inefficient

Early maladaptive schemas are formed due to the failure to satisfy the basic emotional needs in childhood (For example, secure attachment, freedom of expression needs, realistic constraints, autonomy, and spontaneity) and through ongoing patterns of adverse experiences with family members and peers, , the mismatch between parents behavior, and the child's innate temperament (Thimm, 2010). Young with respect to 5 basic emotional needs that were mentioned, grouped schemas into 5 areas: 'Disconnection and Rejection,' 'Impaired Autonomy and Performance,' 'Impaired Limits,' 'Other-directedness,' and 'Over-vigilance/Inhibition' (Bosmanns, Breat, & Vleirberghe, 2010).

Early maladaptive schemas act at the deepest level of understanding, and generally act out of consciousness and psychologically vulnerable people to depression, anxiety, dysfunctional relationships, drug addiction, childhood Trauma, social phobia, eating disorders, personality disorders and psychosomatic Disorders. (Thimm, 2010, Young, 1999; Young et al., 2003; Waller, Kennerly, Ohanian, 2007; Jovev, Jackson, 2004; Hedley, Hoffart, Sexton, 2001; Riso, Maddux, & Santorelli, 2007).

This research was conducted to examine the relationship between alexithymia and early maladaptive schemas, however, in the background, we also examined the relation between the schema and some of the factors associated with emotional distress. Waller and Barter (2005) in their study reported that activation of the schemas of abandonment leads to increased food intake as a way to avoid the negative emotions associated with that. Rijkeboer and De Boo(2009) have expressed that people who have used the compatible scheme, have a better ability to cope with the stress and when encountered with stressful event were less likely to experience mental health problems. Ball and Young (2000) in an experimental research studied the relationship between emotional arousal and irrational thinking with life satisfaction between male and female students. The results showed that people who have highly irrational thinking, report more emotional distress and lower life satisfaction. Because of the clinical and theoretical significance of alexithymia, more research is needed in various fields. Also due to the interaction between maladaptive schemas with alexithymia and the lack of research in this area, this study was conducted to determine the relationship between alexithymia and maladaptive schemas more precisely. In addition, in this study, we attempted to determine the possibility of prediction of alexithymia using the early maladaptive schemas.

## **Methods**

The research is a descriptive study. The research population comprised all undergraduate students of Tabriz University who were enrolled in 2013-14 academic year. Using Morgan table and considering the number of undergraduate students, 220 students were selected through stratified random sampling. Because of incomplete responses to the questionnaires, 20 subjects were excluded from statistical analysis, thus the final sample was reduced to 200 male and female students. After explaining the purpose of the study and assuring the confidentiality of the research, Toronto Alexithymia Scale (TAS-20) questionnaire, and the Young Schema Questionnaire-Short Form (YSQ-SF) were distributed among them. Data were analyzed using Pearson correlation and simultaneous regression analysis.

### Instruments

*Young's early maladaptive schema questionnaire (short form)*: This questionnaire has 75 questions, and was designed to measure the 15 early maladaptive cognitive schemas, including emotional deprivation, abandonment, mistrust, defectiveness, social isolation, dependence, vulnerability, undeveloped self, self-sacrifice, failure, insufficient self-control, entitlement, subjugation, emotional inhibition, and unrelenting standards. Each of 75 items of the questionnaire is scored on a 5-point Likert scale from completely false to completely true. The person's score in each schema will be calculated by adding the scores of 5 questions pertaining to the same scheme. High score indicates a strong presence of dysfunctional schemas and the minimum score for each schema is 5 and maximum is 25 (Kameli et al., 2011). Ahi (2006) translated and administered this questionnaire in Iran. The internal consistency has been reported by Cronbach  $\alpha$  in females as 0.97 and in males as 0.98 (Yousefnejad & Peivastegar, 2011).

*Toronto Alexithymia Scale (TAS-20)*: It is a 20-question test and measures 3 subscales of difficulty in identifying feelings, difficulty in describing feelings, and externally oriented thinking with a 5-point scale (Score 1 for strongly disagree and 5 for strongly agree). Total score is calculated as the sum of 3 subscale scores for alexithymia (Bagby, Parker, and Tylor, 1994). In Farsi version of the Toronto Alexithymia Scale (TAS-20), (Besharat, 2007), Cronbach  $\alpha$  coefficients were calculated for total alexithymia and its 3 subscales of difficulty in identifying feelings, difficulty in describing feelings, and externally oriented thinking as 0.85, 0.82, 0.75, 0.72, respectively, indicating good internal consistency of the scales.

### Results

This study was held among students of Tabriz University at the undergraduate level and demographic data of the participants are shown in Table 1.

**Table 1: Demographic data of the study's participants**

Gender	Frequency	%	Age
Male	103	51.5	25
Female	97	48.5	24.67
Total	200	100	24.85

Before examining the role of alexithymia independent variable in the regression model, we searched the correlation of the variables. As it can be seen in Table 2, among the components of early maladaptive schemas, 'Disconnection and Rejection,' 'Impaired Autonomy and Performance,' 'Impaired Limits,' 'Other-directedness,' and 'Over-vigilance/Inhibition' have a significant positive relationship with alexithymia.

**Table 2: Simple correlation of component early maladaptive schemas with alexithymia**

Component	mMean	SSD	11	22	33	44	55	66
1.Alexithymia	56.68	10.60	11					
2.Disconnection and Rejection	51.65	16.95	0.42**	11				
3.Impaired Autonomy and Performance	38.62	12.63	0.28**	0.77**	11			
4.Other/Directedness	44.20	6.49	0.42**	0.52**	0.52**	11		
5.Over vigilance/Inhibition	28.80	6.90	0.44**	0.51**	0.47**	0.45	11	
6.Impaired Limits	26.84	7.52	0.44**	0.57**	0.59**	0.40	0.66**	11

\*\*Significant at  $P < 0/01$ ; \*Significant at  $P < 0/05$

Before performing a separate regression analysis to examine the assumptions of this study, we evaluated the independence of independent variables by multiple linear assumptions. Software

acquired tolerance and variance inflation. Variable tolerance was in the range of 0.65 to 0.93 and the variance inflation factor was in the range of 1.2 to 1.67. Hence, we can assume that the predictor variables are independent of each other and the multiple linear did not happen. In addition, the natural diagram showed no deviation from normality. In order to determine which variables are maladaptive schemas are predictors of alexithymia, we used simultaneous regression analysis.

**Table 3: Regression analysis to predict alexithymia through maladaptive schemas**

Variable	Index									
	B	$\beta$	T	P	R	R <sup>2</sup>	2 RA	E.S	F	P
Model					0.52	0.31	0.28	8.96	10.04	0.0001
Disconnection and Rejection	0.03	0.059	0.55	0.57						
Impaired Autonomy and Performance	0.17	0.20	1.90	0.04						
Other/Directedness	-0.09	-0.05	0.73	0.46						
Over vigilance/Inhibition Impaired Limits	0.30	0.19	2.24	0.02						
Predictors: Component of maladaptive schemas dependent variable: alexithymia										

Information of Table 3 shows that multiple correlation for the regression model is equal to 0.52 and its square is equal to 0.31. Also, the correction coefficient is 0.28. In other words, 0.28 of the change in alexithymia is explained by early maladaptive schemas (Impaired Autonomy and Performance, Over vigilance/Inhibition). Other components of the study had no significant role in predicting alexithymia.

### Discussion

Findings of our study suggest that areas of ‘Disconnection and Rejection,’ ‘Impaired Autonomy and Performance,’ ‘Other-directedness,’ ‘Over-vigilance/Inhibition,’ and ‘Impaired Limits’ have significant positive correlations with alexithymia. This means that, whatever be the schema of these areas more incompatible, alexithymia is more. Young et al. (2003) argued that schemas arise due to failure in satisfying basic emotional needs of children and act as a filter to prove or confirm the experiences of children. For this reason, the negative schemas in individuals who have experienced a difficult childhood cause negative emotions, in contrast, optimistic view calls positive emotions and improves a person’s quality of coping with stress.

In addition, regression analysis shows that areas of ‘Impaired Autonomy and Performance,’ and ‘Over- vigilance/Inhibition’ are important predictors of alexithymia. ‘Impaired Autonomy and Performance’ domain contains 4 exclusive schemas: vulnerability, failure, undeveloped self, and dependence. People who have difficulty in these schemas, their expectations of self and environment interfere with their concrete ability to separate, function or survive independently, and successfully complete tasks. Typically, schemas of this domain form in households that reduce a child’s self-esteem, is overly protective of children or not to encourage children to do things outdoors (Young et al., 2011).

Another area that has the ability to predict alexithymia is ‘Over-vigilance/Inhibition’ area. This field contains the schema of negativity, emotional inhibition, unrelenting standards, and punitiveness (Zolfagari et al., 2008). According to Young et al. (2011), people who have these schemas have a superficial relationship, and are distant and cold towards others. Also, negativism, ignoring the positive aspects of life, not to express excitement, affection and love, can lead to problems in their lives. For example, in interpersonal relations, they are afraid of allowing to express their emotions, lest completely lose control of theirs.

On the other hand, patients with alexithymia have characteristics such as difficulties in processing emotional information (Suslow & Junghanns, 2002), difficulty in understanding facial expressions (Parker, Taylor, and Bagby, 1993) and less capacity for empathy (Guttman & Laporte, 2002). This feature troubles the people with alexithymia in interpersonal relationships because of apathy and indifference to others (Besharat, 2009; Vanheule, Desmet, Rosseel, Verheaghe, & Meganck, 2006). They have difficulty in expressing their needs to others and unable to deal with interpersonal challenges in social situations (Besharat, 2009; Vanheule, Desmet, Meganck, & Bogaerts, 2007). This study confirms the findings of Weinryb, Gustarsson, Hellstrom, Andersson, Broberg, & Rylander (1996) about the relationship between alexithymia and difficulties in interpersonal relations as a key feature of the 'Over-vigilance/Inhibition.' And given that the scope of the scheme has many common features with alexithymia, it can be a good representation for the alexithymia.

In summary, the results of this study showed that, there is a correlation between alexithymia with early maladaptive schemas. Also 'Impaired Autonomy and Performance,' and 'Over-vigilance/Inhibition' schemas have the greatest ability to predict alexithymia. Accordingly, there are two sets of theoretical and practical implications for this study. In practical level, we can enhance the ability of normal subjects with respect to their emotional experience and inform them of the existence of probable maladaptive schemas. Ask them to inoculate against mental disorders, and take necessary measures such as training interventions. The theoretical implications of research findings provide new insights about the predictors of alexithymia. This predictor (maladaptive schemas) not only enrich theoretical models of alexithymia, but also lead to the strengthening of relations among the 2 theories: the theory of alexithymia, maladaptive schemas.

The population and sample pose some restrictions on the findings, interpretations, and attributions of cognitive variables that should be considered. Also, the study sample was a student sample, so one must be cautious in generalizing the findings to other populations.

In future researches, it is recommended that larger samples be examined and research be done on people with psychological disorders, personality disorders, or emotional problems.

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