

Investigating the Efficacy of Interpersonal Psychotherapy on Alexithymia Features

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ABSTRACT

Alexithymia refers to difficulties in experiencing, verbalizing and regulating emotions. The present study aims to apply interpersonal psychotherapy principles (IPT) in reduction of alexithymia symptoms. Implementing the Toronto Alexithymia Scale (TAS-20) on 384 female students of the Shiraz University (Iran) and evaluating the scores distribution of sample group base on the given scale, 30 students who were at least one standard deviation above the mean of the distribution, were randomly selected and divided into control and experimental groups (n = 15 in each group). The experimental group experienced interpersonal psychotherapy program during 12 sessions and the control group received no intervention. The groups were compared to each other by means of TAS scale and during two stages (post-test and three month follow up). MANCOVA results indicated a significant difference between the experimental and control groups in the three alexithymia features: difficulty identifying feelings, difficulty describing feelings and externally oriented thinking. At the follow up stage however, there was a significant difference between the groups only in difficulty identifying feelings and describing feelings components. It seems logical that addressing effective foundations in Alexithymia occurrence (attachment difficulties in early life influencing adulthood) through emotion regulation and modification within an interpersonal space which is one of the interpersonal psychotherapy goals at the present time, can lead to the improvement of Alexithymia symptoms.

Key words: Alexithymia, interpersonal psychotherapy, difficulty identifying feelings, Difficulty describing feelings, externally oriented thinking.

INTRODUCTION

People usually communicate with each other through language. Transferring one's feelings to other people and understanding their feelings and emotions is one of the most important human's abilities to communicate. So the more a person is capable of identifying, distinguishing and describing his feelings and understanding other people's feelings, the more effectively he can communicate. According to "Affection Exchange" theory (Neo-Darwinian theory)^{1,2}, affectionate communications

are considered as adaptive behaviors. Some people having little capacity to experience and express their emotions in form of words, suffer from Alexithymia³, introduced by Nemiah and Sifneos in 1970s⁴: difficulty identifying feelings and distinguishing between received bodily sensations associated with emotions arousal, difficulty describing feelings, limited imagery process and externally oriented cognitive style⁵. Bagby *et al.* (2006) revealed that Alexithymia in fact consisted of two general deficits: decreased affection awareness which is visible at the levels of difficulty identifying feelings and

difficulty describing feelings and operation althinking (acognitive style recognized byreduced objective thinking⁶.

Relationship between Alexithymia and interpersonal problems has been verified by a large number of studies^{4,7-12}. Various studies have also indicated insecure attachment styles in people with Alexithymia¹³⁻¹⁵.

Childhood destructive relationships and learning the insecure attachment style lead to more negative affection experiences and less ability to understand the emotions¹⁶. If parents are not able to evoke infants' emotional cues and fail as an external regulator of infants' emotions, they may distort their normal emotional development¹⁴. Parents not expressing their emotions or not responding appropriately to infants' emotions can have a huge impact on their emotion regulation later in their life. Children comprehend their internal states (through the feeling labeled by others) first through social interactions particularly with their parents and ultimately empowered. Using facial expression and context, self-understanding, internal states perception and expressing them by means of language¹⁶. Children having difficulty in this era are called Alexithymic when grown up¹⁷. Therefore, various factors such as strikes, the neuropsychological-biological deficits, cultural-social influences and quality of attachment (insecure attachment style) are involved in alexithymia etiology.

Most studies so far have been addressing etiology and pathology of alexithymia rather than therapy and interventions. According to controlled studies and clinical observations, alexithymia treatment is too difficult. Implementing a research to provide a treatment framework for such patients, Vanheule *et al.*, (2011) presented a conceptualization of this structure based on interpersonally imbedded affect regulation⁷. It seems that structured Psychotherapy focused on trainingis more effective for these patients¹⁸. A number of researchers recommend the affect regulation based intervention for these patients^{19, 20}.

In general Psychotherapy or intervention method that can concurrently consider the lack of emotional regulation, interpersonal problems and

related conditions, can take an effective step toward improving the lives of these individuals. According to mentioned theoretical framework, this study seeks to examine if applying the principles of interpersonal psychotherapy (IPT) can be effective in reducing alexithymia features. Interpersonal Psychotherapy is in fact a type of short-term therapy²¹ which was first invented with the purpose of intervention treatment for depressed patients. Interpersonal psychotherapy is a focused intervention on the internal correlations of interpersonal problems and psychological symptoms²².

This type of therapy, concurrently examine life events, mood disorders self-esteem and interpersonal processes²². Interpersonal psychotherapyis an approachtargeting interpersonal problems, in order to resolve psychological ones²². Examining the usefulness of interpersonal psychotherapy is necessary, as the fundamental logic of this intervention method is compatible with alexithymia characteristics and it's affecting factors. Although mood and emotional disorders and interpersonal problems do not necessarily overlap in all cases, there are complex relationships between them which can be resulted from childhood damages such as lack of parents, being abused or experiencing improper family structure.

Furthermore, althoughIPT based on its title is an intervention method addressing interpersonal relationships, it was first invented and developed as a short-term therapy to treat mood disorders specially depression²¹, concentrating on mood and emotional structures which probably can be effective in moderating alexithymia symptoms.

METHOD

The present study consists of control and experimental groups where the experimental group receives the intervention program but the control group receives no particular experience. In addition, considering the random placement of people in different groups, this plan is graded as true experimental design.

Participants

A total of 384 students from approximately 1000 female students from the Shiraz University

(Iran) during the academic year 2011-2012 were selected based on the availability sampling method, considering the population size and referring to Krejcie - Morgan table (1970). 30 students with at least one standard deviation above the distribution mean were randomly selected and placed into two groups of experimental and control, based on the Toronto Alexithymia Scale (TAS-20) and the distribution of scores. Individuals with no history of mental disorders drug addiction and disability were accepted to the groups. Participants were undergraduate students, and ranged from 18 to 25 years old²³.

Assessment Tool

Toronto alexithymia scale (TAS-20)

This scale was created to measure Alexithymia features by Bagby *et al.*, (1994)²⁴. This scale is a self-report scale including 20 materials. Each material is scored on a 4-point Likert scale. Higher scores indicate a greater presence of alexithymia features with three subscales including difficulty identifying feelings (DIF), difficulty describing feelings (DDF) and externally oriented thinking (EOT)⁴. Psychometric features of this scale have been completely confirmed and the validity and reliability is achieved in different populations¹¹. Internal consistency of this scale is reported in the Persian form 0.85 A²⁵.

The Toronto Structured Interview for Alexithymia

This interview designed by Bgby *et al.* was including 24 questions related to alexithymia four dimensions (difficulty identifying feelings, difficulty describing feelings, externally oriented thinking and limited imagery processes). Items are scored on a three degrees Likert scale by the interviewer⁴. Higher scores indicate a greater presence of alexithymia characteristics. Factorial validity, internal consistency and agreement between the graders have been reported to be good⁶.

Conducting interview along with the TAS-20 has two advantages: first examining imagery processes in addition to three dimensions measured by the scale, second addressing affectionate awareness problems through exploring and searching during the interview in people probably unaware of their difficulty in identifying

and describing feelings while answering the scale questions (on each item the person is asked to describe a stress-causing situation and explain their feelings regarding the situation)⁶. Interview was used in order to complete and confirm the data obtained through the mentioned scale in this research.

Therapeutic Method

Interpersonal psychotherapy (IPT) is a short-term therapy focuses on interpersonal problems. IPT aims to change or modify interpersonal relationships and expectations associated with them. It also help patients and other people improve a social support network in order to more effectively manage their interpersonal problems²⁶. In this research, the therapy was performed once a week, during 12 one-hour sessions. A brief description on the content of the sessions is as follows:

First and Second Sessions

A general interview and creating a personal history, surveying the range of emotional interactions attachment styles and the pattern of emotion expression, communicating and creating therapeutic alliance, using the therapist's emotional capacity and empathy for creating a feeling of security in referee within the therapeutic framework.

Third Session

Surveying the referee's style and relationship Network, conflicts appraisal and exploring the cognitive ranges in connection with interaction space.

Fourth and Fifth Sessions

Surveying the emotional interactions with important people, focusing on referee's conflicts with important people, investigating economic dynamics (emotional investments) and their consequences, preliminary interpretations based on diagnosis, examination of referee's feedback and providing acceptance preconditions, creating operational therapeutic plans with the help of the referee.

Sixth Session

Addressing the main communication problems in details, examining the referee's capacity to understand and solve problems.

Seventh Session

reaching alternative solutions for main complaints, reviewing and selecting appropriate solutions during the consultation process.

Eighth Session

Using imagery and role playing in order to implement the solutions in treatment session and planning for solutions performance in real communications spaces.

Ninth Session

Discussing the how of implementing the solutions and reporting their consequences, reviewing the problems and guiding the person to illustrate an emotional and communication space.

Tenth Session

Reviewing the exercises, generalizing successful solutions to other situations and so forth.

Eleventh and Twelfth Sessions

Surveying thereferences emotions and feelings and related expressions about the changes in her communication environment, evaluating the treatment success based on reviewing three emotional performances in emotional distinctions, emotional perception and emotional expression contexts, highlighting the benefits of the treatment.

Implementing process

As mentioned earlier, 30 people having at least one standard deviation above the mean of the distribution, on TAS were selected from a sample of 384 female students. TAS for Alexithymia was then conducted and completed by the therapist. Also these people were considered in terms of entry criteria. They were then divided randomly into two 15-person groups. Then the desired intervention was randomly given to one of the groups.

Experimental group in fact received the interpersonal psychotherapy and control group received no particular experience. The intervention was given to control group once a week, during 12 one-hour sessions. After the treatment at the follow-up (3 months after the treatment), testees were measured by the mentioned scale meaning that both experimental and control group were evaluated in pretest, post-test and follow-up phases.

RESULTS

In this section, findings regarding alexithymia subscales (difficulty identifying feelings, difficulty describing feelings and externally oriented thinking), will be analyzed. First, the descriptive findings are reported and then the data statistical analysis will be discussed. Descriptive indexes associated with subscales of alexithymia in the experimental and control groups at pretest, post-test and follow-up are reported in Table 1.

The results in table 1 indicate that the averages of all Alexithymia subscales scores were significantly low in experimental group comparing with experimental group. This is visible regarding all the subscales.

In the following, the obtained data will be analyzed. Considering this research aims to examine the efficiency of interpersonal psychotherapy method on Linear combination of these two subscales' dependent variables, multivariate analysis of covariance (Manocova) is used for measurement. Also Homogeneity of covariance assumption (box's test) and homogeneity of variances assumption (Levine test) are required before the statistical test. Multivariate analysis of covariance test results on the linear combination of Alexithymia subscales in the post-test is presented in table 2. Results suggest box's (Box's $M=12.78$, $F=1.88$, $p>0.05$) and Levin ($p>0.05$) test are not significant and as a result the assumptions used in this statistical test applies.

Table 2 indicate a significant difference ($P<0.01$) between different levels of the two groups (experimental and control groups) in the post test, regarding Alexithymia combination dependent variable (difficulty identifying feelings, difficulty describing feelings and externally oriented thinking). In order to figure out the levels of Alexithymia components where the difference between the two groups is significant, table 3 should be reviewed.

Based on the table 3, there is a significant difference between experimental and control groups ($P<0.01$) in the post-test after moderating the pre-test effects in the three Alexithymiasubscales including difficulty identifying feeling difficulty describing feelings and externally oriented thinking. Referring to table 1, it can be found that observed

Table 1: Descriptive indexes of Alexithymia subscales in two sample groups in pretest, post-test and follow-up

Group	Time	Dependent Variable	Minimum	Maximum	Average	Standard deviation
Experimental Group	pretest	Difficulty identifying feelings	2	26	15.13	6.87
		Difficulty describing feelings	3	16	9.4	4.34
		Externally oriented thinking	6	18	12.2	3.7
	Post- test	Difficulty identifying feelings	1	11	5.8	2.62
		Difficulty describing feelings	1	10	6.33	2.64
	Follow-up	Externally mode of thinking	4	15	10.07	2.81
		Difficulty identifying feelings	2	10	7	2.33
Control Group	Pretest	Difficulty describing feelings	2	11	6.4	2.44
		Externally mode of thinking	5	19	10.93	3.39
		Difficulty identifying feelings	11	22	16.13	3.25
		Difficulty describing feelings	4	17	11.20	3.45
		Externally mode of thinking	4	21	20.13	5.27
	Post- test	Difficulty identifying feelings	3	24	15.93	5.47
		Difficulty describing feelings	2	15	10	3.85
		Externally mode of thinking	8	19	14	3.68
	Follow-up	Difficulty identifying feelings	1	24	15.33	6.31
		Difficulty describing feelings	4	17	10.73	4.17
		Externally mode of thinking	9	19	13.27	3.33

Table 2: The results of analyzing one-way multivariate covariance test on Alexithymia subscales at the follow

impact	index	Particular value	F	Degrees of freedom between	Freedom degrees of Error	Significance level groups	Test power
Difficulty identifying Feelings pretest	Pillai's trace	0.16	1.42	3	23	0.26	0.32
	wilks lambda	0.84	1.42	3	23	0.26	0.32
	Hotelling's trace	0.18	1.42	3	23	0.26	0.32
Difficulty describing feelings pretest	Pov-Ray Square root	0.18	1.42	3	23	0.26	0.32
	Pillai's trace	0.12	1.01	3	23	0.41	0.24
	wilks lambda	0.88	1.01	3	23	0.41	0.24
Externally mode of thinking pretest	Hotelling's trace	0.13	1.01	3	23	0.41	0.24
	Pov-Ray Square root	0.13	1.01	3	23	0.41	0.24
	Pillai's trace	0.315	3.53	3	23	0.03	0.71
group	wilks lambda	0.68	3.53	3	23	0.03	0.71
	Hotelling's trace	0.46	3.53	3	23	0.03	0.71
	Pov-Ray Square root	0.46	3.53	3	23	0.03	0.71
	Pillai's trace	0.62	12.31	3	23	0.000	0.99
	wilks lambda	0.38	12.31	3	23	0.000	0.99
	Hotelling's trace	1.61	12.31	3	23	0.000	0.99
	Pov-Ray Square root	1.61	12.31	3	23	0.000	0.99

Table 3: The results of analyzing one-way multivariate covariance test on Alexithymia subscales at the post

Resource	Dependent variable	Sum of squares	Degree of squares	squares freedom	F Mean	Significance level	Test power
Difficulty identifying Feelings pretest	Difficulty identifying feelings in follow-up	25.96	1	25.96	1.44	2.24	0.21
	Difficulty describing feelings in pretest	21.01	1	21.01	2.12	0.16	0.29
	Externally oriented thinking	2.79	1	2.79	0.31	0.58	0.09
Difficulty describing feelings pretest	Difficulty identifying feelings in follow-up	16.57	1	16.57	0.92	0.35	0.15
	Difficulty describing feelings in follow-up	25.28	1	25.28	2.55	0.12	0.34
	Externally mode of thinking in follow-up	1.06	1	1.06	0.12	0.73	0.06
Externally mode of thinking pretest	Difficulty identifying feelings in follow-up	14.79	1	14.79	0.82	0.37	0.14
	Difficulty describing feelings in pretest	2.33	1	2.33	0.23	0.63	0.07
	Externally mode of thinking in follow-up	59.22	1	59.22	6.7	0.02	0.7
Group	Difficulty identifying feelings in follow-up	669.15	1	669.15	37.03	0.000	1
	Difficulty describing feelings in pretest						
	difficulty describing feelings follow-up	76.03	1	76.03	7.68	0.01	0.76
	Externally mode of thinking in follow-up						
	Externally oriented thinking follow-up	82.67	1	82.67	9.36	0.01	0.84
error	Difficulty identifying feelings in follow-up						
	Difficulty describing feelings follow-up	451.79	25	18.07			
	Difficulty describing feelings in pretest						
	Difficulty describing feeling follow-up	247.33	25	9.89			
	Externally mode of thinking in follow-up	220.09	25	8.84			
total	Difficulty identifying feelings in follow-up	4828	30				
	Difficulty describing feelings in follow-up	2407	30				
	Externally mode of thinking in follow-up	4761	30				

Table 4: The results of analyzing one-way multivariate covariance test on Alexithymia subscales at the follow

Resource	Dependent variable squares	Sum of freedom of freedom	Degree Mean	squares level	F power	Significance	Test
Difficulty identifying Feelings pretest	Pillai's trace	0.22	2.22	3	23	0.11	0.49
	wilks lambda	0.77	2.22	3	23	0.11	0.49
	Hotelling's trace	0.29	2.22	3	23	0.11	0.49
Difficulty describing feelings pretest	Pov-Ray Square root	0.29	2.22	3	23	0.11	0.49
	Pillai's trace	0.32	3.60	3	23	0.03	0.72
	wilks lambda	0.68	3.60	3	23	0.03	0.72
Externally mode of thinking pretest	Hotelling's trace	0.47	3.60	3	233	0.03	0.72
	Pov-Ray Square root	0.47	3.60	3	23	0.03	0.72
	Pillai's trace	0.35	4.20	3	23	0.02	0.79
Group	wilks lambda	0.65	4.20	3	23	0.02	0.79
	Hotelling's trace	0.55	4.20	3	23	0.02	0.79
	Pov-Ray Square root	0.55	4.20	3	23	0.02	0.79
Group	Pillai's trace	0.45	6.37	3	23	0.01	0.93
	wilks lambda	0.55	6.37	3	23	0.01	0.93
	Hotelling's trace	0.83	6.37	3	23	0.01	0.93
	Pov-Ray Square root	0.83	6.37	3	23	0.01	0.93

Table 5: The results of analyzing one-way multivariate covariance test on Alexithymia subscales at the follow-up

Resource	Dependent variable	Sum of squares	Degree of squares	squares freedom	F Mean	Significance level	Test power
Difficulty identifying Feelings pretest	Difficulty identifying feelings in follow-up	33.06	1	33.06	0.23	1.48	0.22
	Difficulty describing feelings in follow-up	13.17	1	13.17	0.26	1.3	0.19
	Externally mode of thinking in follow-up	0.45	1	0.45	0.83	0.05	0.05
Difficulty describing feelings pretest	Difficulty identifying feelings in follow-up	25.01	1	25.01	0.3	1.12	0.17
	Difficulty describing feelings in follow-up	56.61	1	56.61	0.03	5.59	0.62
	Externally mode of thinking in follow-up	4.56	1	4.56	0.49	0.48	0.1
Externally mode of thinking pretest	Difficulty identifying feelings in follow-up	0.07	1	0.07	0.95	0.01	0.05
	Difficulty describing feelings in follow-up	0.02	1	0.02	0.96	0.01	0.05
	Externally mode of thinking in follow-up	72.33	1	72.33	0.01	7.65	0.75
Group	Difficulty identifying feelings in follow-up	411.48	1	411.48	0000.000	18.42	0.98
	Difficulty describing feelings in follow-up	99.35	1	99.35	0.01	9.81	0.85
	Externally mode of thinking in follow-up	33.32	1	33.32	0.07	3.52	0.44
Error	Difficulty identifying feelings in follow-up	558.31	25	22.333			
			25	10.13			
			25	9.46			
			30				
			30				
			30				

differences are in favor of the experimental group. Actually, interpersonal psychotherapy has been effective in reducing Alexithymia features.

In the next phase, the effect of interpersonal Psychotherapy was examined in comparison with control group on Alexithymia subscales in follow-up. The results of Box (Box's $M=12.78$, $F=1.88$, $p>0.05$) and Levin ($p>0.05$) confirms the assumptions of variance and covariance homogeneity, therefore using multivariate analysis of the covariance is allowed.

Table 4 indicates a significant difference ($P<0.01$) between experimental and control groups in Linear combination of the dependent variable (Alexithymia subscales) at the follow-up. In fact, the results demonstrate the maintenance of Psychotherapy effects during three months after the intervention. Table 5 determines this effect is significant in which dependent variables.

As seen in table 5, there is a significant difference ($p<0.01$) between the two groups regarding difficulty identifying feelings and difficulty describing feelings after moderating the pre-test scores at the follow-up. With respect to table 1, average score of these factors in experimental group is lower at a significant level comparing with control group. The significant results indicate the maintenance of Psychotherapy effects during three months after treatment regarding mentioned factors while there is no significant difference in terms of externally oriented thinking.

CONCLUSION

As mentioned before, this study aimed to assess the efficacy of interpersonal psychotherapy in reducing Alexithymia features. The results revealed a significant difference between the experimental group (the group received the intervention) and the control group (the group received no intervention) after the psychotherapy (in the post- phase), in regard with the three characteristics of Alexithymia including difficulty identifying feelings, difficulty describing feelings and externally oriented thinking.

This means that interpersonal psychotherapy is effective in reducing Alexithymia features. There was a significant difference between

the control and the experimental groups only in difficulty identifying feelings and difficulty describing feelings at the follow-up (three months after the end of intervention). According to surveys, no study has been conducted on examining the efficiency of interpersonal psychotherapy for improving Alexithymia features, also according to controlled studies and clinical observations, curing Alexithymia people is too difficult.

Higher levels of Alexithymia, predict more serious therapeutic consequences^{5,27}, however a number of researches have mentioned the efficacy of psychotherapy on Alexithymia, according to a number of researches, if psychotherapy methods are performed focusing on the prominent characteristics of these people, it is likely to achieve a successful outcome. According to Vanheule *et al.* (2007), since Alexithymia people, clinically and practically tend to withdraw from others and refrain from sharing their experiences, one of the key activities of the therapist in order to identify provoking, describing related feelings and developing explanations associated with them is to reflect the patient's feelings without imposing his own explanations²⁸. Considering this, Vanheule *et al.* (2011) offered a conceptualization of this structure in a research based on interpersonally imbedded affect regulation in order to provide an appropriate treatment for these people⁷. A number of researches recommend interventions based on emotional regulation for treatment of these people^{19, 20}.

Due to the low ability of imagery in Alexithymia people, visual techniques are frequently used in treatment of Alexithymia²⁹. A number of researchers have examined the efficiency of other therapeutic methods on this personality variable.

Framarzi *et al.* (2013) Research aimed to investigate the efficacy of short-term Dynamic therapy emphasizing on Core Conflictual Relationship Theme in patients with functional dyspepsia, indicated indigestion symptoms improvement as well as reducing Alexithymia features³⁰. Stingl *et al.* (2008) research found short-term Dynamic therapy effective in reducing Alexithymia symptoms³¹. The findings of Simson *et al.* (2006) also confirms the effectiveness of psychotherapy on Alexithymia scores³².

Reducing Alexithymia symptoms with interpersonal psychotherapy and considering theoretical basis of this therapeutic model and Alexithymia which both emphasize on attachment concept, seems to be debatable. The most important theory IPT is based on attachment theory. According to this theory humans have an inner drive to interpersonal relationships³³. Attachment establishment is an important element to form sustainable patterns of interpersonal behavior which leads to seek care and reassurance in a specified way by the person. According to this theory disruption in attachment process leads to distress in people.

Insecure attached people are more susceptible to distress while involved in interpersonal conflicts, after the loss of a relationship or looking to change the role; they have experienced less security in early life attachments as well as weaker social support networks³³. IPT most focuses on the ways patients exchange their attachment needs and create a social support network rather than trying to change the patient's attachment style. IPT works on the patients' current relationships considering their attachment style and help them exchange needs more effectively. On the other hand, there are various theories in terms of Alexithymia and problems relating that. One of the theories addressing these problems, inspired by psychodynamic concepts, seeks for the root of these problems in childhood and within Object Relations. Bowlby's attachment theory (1988), is one the most important theories which consider the basis of such problems in the concepts of undeveloped emotional capacities and difficulty in emotional investment during childhood⁵.

Theorists like Bowlby (1988) and other theorists of psychoanalysis refer to early attachment experiences on internal representations of oneself and others. In fact they try to examine the impact of Internal working model of attachment on future relationships and emotional regulation strategies in adolescence and adulthood. Attachment theory assumes that people use internal working models in order to regulate emotions. These models are motivational-affective-cognitive schemas which are made based on interpersonal experiences and later attachment events strengthen and moderate these primary schemas⁵.

Attachment experiences in early life can be internalized to provide a prototype for later relationships as the primary attachment relationships do. These primary internalized attachment patterns remain stable throughout life and affect child's future life⁵. Primary caregiver sensitivity and responsiveness to the child's emotional states, is a mainly determinant in learning distressing affect and communicating with others people^{5,11}.

Children with secure attachment received coordinated and optimum responds from tenders and learned that expressing regulated emotions leads to positive outcomes. These children are more capable of performing symbolic games and expressing positive affections and indicated more adaptability and competency in later relationships than children with insecure attachment⁵.

On the other side, deficient care may lead to insecure attachment pattern and prevent development of effective regulating skills of emotion⁵. Therefore it seems logical that addressing features effective in Alexithymia (problems experienced in terms of attachment during childhood and lasting impact to adulthood) can lead to its improvement through regulating and modifying emotions in an interpersonal space which is one of the interpersonal Psychotherapy goals.

In fact, interpersonal psychotherapy has been able to suggest an effective method to reduce these people's problems by using interpersonal principles, addressing individual feelings and particularly offering appropriate solutions for identifying feelings, expressing and applying them in interpersonal situations. In this method of therapy, awareness of feelings, confronting them, and the courage to express them are conducted in a communicative space which is an effective element in treatment efficiency. As mentioned above, providing required conditions for treatment are in consistent with known problems of Alexithymia people.

Differences between control and experimental groups in difficulty identifying feelings and difficulty describing feelings have remained significant after three months of therapy. In other words, changes occurred due to the therapy have

been remained even after three months of therapy. But this difference is not significant in terms of externally mode of thinking.

As noted earlier, the study conducted by Faramarzi and colleagues (2013) short-term dynamic psychotherapy emphasizing the core conflict relationship was not able to modify the style of externally mode of thinking³⁰. Bgby and colleagues (2006) showed that alexithymia generally include two deficits: Reduced affective awareness which is visible in the levels of difficulty identifying feelings and difficulty describing feelings and operative thinking (a cognitive style is determined by objective thinking and visual processes)⁶.

The deficiency is determined through affections symbolization and intellectualization, (reducing symbolic thinking)³⁴ or processing and regulation of emotions (5). A number of researchers consider Alexithymia on two components: emotional (difficulty identifying and describing feelings) and cognitive (externally mode of thinking)^{5, 35-37}.

Melin *et al.* (2010) consider externally mode of thinking as a hereditary trait (while considering the other features as state-dependent phenomena). Therefore, changes in the two Alexithymia emotional components are more likely to remain stable over time. Considering the fact that externally mode of thinking is a cognitive component, it is more unlikely to achieve sustainable results through therapeutic methods that focus on emotions regulation and variation (comparing with therapies focusing on individual cognitions and their variation).

Limitations of this research included implementation of the plan only in female groups, student population and a non-clinical population. Hence it is recommended to conduct the research on other groups such as non-student population, male population and groups with psychological diagnosis as well. Other limitation was implementing in a non-clinical population.

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