

## **Alexithymia in relation with emotional express styles in chronic pain**

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**Abstract:** Emotional express is a key concept in social communication. Considering the significant role of emotional expression in social and individual life this study aimed to study the relationship between alexithymia and emotional express. This research was a descriptive cross sectional study included patients with chronic pain (N= 100 male and N= 100 female). The samples assessed by standard Alexithymia Scale (TAS) and Emotional Express Questionnaire (EEQ). Data analyzed using descriptive statistics and inferential statistics (Pearson and T-test).The results indicated positive relationship between alexithymia with emotional inhibition, positive expression, aggression control and benign control. According results there is relationship between alexithymia and emotion express styles this awareness regarding expression style may help during treatment of these patients.

**Keywords:** Alexithymia, emotional expression styles, chronic pain.

### **INTRODUCTION**

Alexithymia refers to people who have trouble identifying and describing emotions and who tend to minimize emotional experience and focus attention externally. Sifneos [31] coined the term alexithymia to designate a group of cognitive and affective characteristics typical of many patients with psychosomatic illnesses. It is thought to be a personality trait that is characterized by a decreased ability to communicate feelings, a decreased ability to identify feelings, a cognitive tendency toward detail and external operations or events, and a paucity of imaginative thought, dream recall, or fantasy [1].

Mattila et al. [3] estimated 10% prevalence of alexithymia in general population. On study in Iran estimated that the general prevalence of behavioral emotional disorders in the children based on the parent's report was 15.8% and this disorder was 24.9% among teachers [4]. It was about 16.84% in older studies [5]. Researchers divided domains of alexithymia as follows: difficulty in describing feelings, difficulty in distinguishing feelings and bodily sensations caused by emotional arousal the lack of introspection, social conformity, impoverished fantasy life and poor dream recall [2].

Several reasons presented in description of alexithymia. Quinton and Wagner [7] reported significant relationship between alexithymia and emotional ambivalence. Emotional expression has a key role in mental health [7]. According to Emotional, discharge theory, which can be traced to Freud's dynamic theory [1], posits an inverse relationship between the outward expression of emotion and the inward autonomic response. In the context of this theory, emotion is seen as a form of energy, which must follow the basic dynamics of energy conservation. Therefore, if a person gets emotionally aroused, this arousal must be discharged either through expression (e.g., facial movements), or through internal pathways (e.g., sympathetic activity) [8]. Anxiety and stress was positively correlated with alexithymia and negatively with self-regulation, when accounting for depression [6]. It follows from the theory that alexithymics would have a higher probability for excessive sympathetic activity during emotion, given that the ability to communicate emotions includes an outward expression of affect to others and that alexithymics are characterized by a deficit in emotional communication.

Le et al. [14] indicated there is association between demotions of alexithymia i.e. difficulties in identification of emotions and difficulties in expression of emotions with anxiety [15].

Reviewing literature indicated probably there is potential link between alexithymia and emotional express style, which neglected in native studies. Therefore, we aimed to survey the relationship of alexithymia and emotional express style among patients with chronic pain.

## METHODS

### Samples and setting

This cross sectional study included all patients who referred to Imam Khomeini hospital in Rasht (N=1200). According Morgan table 182 (Male =91 and Female =91) people selected through quota sampling. Inclusion and exclusion criteria comprised involving with pain in last 6 months, age between 20-50, no history of psychotherapy

### Measurement

The measurement tools including demographic characters comprised from four standard questionnaires, which explained below:

- Alexithymia scale :

The TAS is a 20-item instrument that is one of the most commonly used measures of alexithymia. The TAS-20 has 3 subscales:

- 1- Difficulty Describing Feelings subscale is used to measure difficulty describing emotions. 5 items – 2, 4, 7, 12, 17.
- 2- Difficulty Identifying Feeling subscale is used to measure difficulty identifying emotions. 7 items – 1, 3, 6, 11, 9, 13, 14.
- 3- Externally-Oriented Thinking subscale is used to measure the tendency of individuals to focus their attention externally. 8 items – 5, 8, 10, 15, 16, 18, 19, 20.

The TAS-20 is a self-report scale that is comprised of 20 items. Items are rated using a 5-point Likert scale whereby 1 = strongly disagree and 5 = strongly agree. There are 5 items that are negatively keyed (items 4, 5, 10, 18 and 19). The total alexithymia score is the sum of responses to all 20 items, while the score for each subscale factor is the sum of the responses to that subscale. The TAS-20 uses cutoff scoring: equal to or less than 51 = non-alexithymia, equal to or greater than 61 = alexithymia. Scores of 52 to 60 = possible alexithymia.

Demonstrates good internal consistency (Cronbach's alpha = .81) and test-retest reliability (.77,  $p < .01$ ). Research using the TAS-20 demonstrates adequate levels of convergent and concurrent validity. The 3 factor structure was found to be theoretically

congruent with the alexithymia construct. In addition, it has been found to be stable and replicable across clinical and nonclinical populations [16].

- The AEQ-G18 includes 18 out of the 28 items of the original English AEQ [19] offering five response options (0 = "never" to 4 = "always"). In addition to the two scales effect ambivalence and competence ambivalence, we also calculated a total score. The ten items of the scale effect ambivalence pertain to consequences of expressed emotions and refer mostly to negative emotions, whereas the eight items concerning the scale competence ambivalence describe the ability to express feelings. For a clinically normal sample of 164 participants that had been recruited from professional and private contacts of university employees, the internal consistencies (Cronbach's  $\alpha$ ) were 0.80 for the scale competence ambivalence, 0.77 for the effect ambivalence and 0.77 for the total scale [20]. To our knowledge, the test-retest-reliability has not been verified yet. Rafiyenia reported appropriate reliability for this questionnaire Cronbach's  $\alpha$  0.87 [21].
- Emotional Expressiveness Questionnaire (EE) [15] comprised 17 items, 5 item for intimacy, 7 items load highest on the Expression of Positive Emotion factor, and 4 items on the Expression of Negative Emotion factor. Rafiyenia reported Cronbach's  $\alpha$  0.68 for total scale, 0.65, 0.5 and 0.68 for subscales.

## PROCEDURE

The proposal of study approved and permission for data collection obtained the samples selected through quota sampling. Then standard questionnaire distributed among samples. The aim of study explained and they asked to fill the questionnaire

## Statistics

First, we have checked the normality of data's and then T-test test have been used to compare the scores of male and females in alexithymia, emotional expression style. In addition, the study used SPSS as analysis software to find out correlation of variables i.e. alexithymia and emotional express.

## RESULTS

The descriptive results indicated 57% of participants aged between 30-40, 38.5% were in 4-50 age ranges and rest aged below 30. Regarding birth order, 21% were first child, 24.7% second, 22.8 third and rest fourth order. 85.6% of students were married and 14.4 % were single.

**Table-1: Correlation between alexithymia with emotional expression style**

Factors	Alexithymia
Alexithymia	1
Positive emotions	.01/.
Intimacy presentation	./182*-
Negative emotion	./119
ambivalence	221./**

\*significant

**Table-2: Comparing male and female in alexithymia and emotional expression**

Variables	Levenes Test for quality of Variance		T	df	sig	Mean diff	Std. Error Difference	95% Confidence interval of the difference	
	F	Sig.						Lower	Upper
Alexithymia	0.494	0.483	1/404	180	0.162	1.84	1.31	0.74-	4/43
Positive emotions	0.220	0.640	1.08	180	0.282	0.85	0.79	0/7-	2/42
Intimacy presentation	4.24	0.41	0.824	177	0.100	0	0.504	1.86-	0.16
Negative emotion	1.31	0.253	1.00	177	0.316	0.42	0.41	406-./	1.25

The results of T-test indicate there are no significant differences between male and females in term of alexithymia and emotional expression styles.

## DISCUSSION AND CONCLUSION

Present study aimed to investigate relationship of alexithymia, emotional expression styles in male and female patients with chronic pain. The results showed there is significant relationship between alexithymia and emotional express styles. This implies higher alexithymia was related to higher negative emotions and lower intimacy presentation. This result was not surprising as alexithymia refers to a disturbance in emotional processing, especially reduced capabilities in verbalizing and realizing emotion which is due to emotional arousal in autonomic nervous system. In fact clinical sign of alexithymia included increase or lack of conscious emotional experience [23]. In possessing theory, alexithymia considered as a dissociation. This study also showed there is positive relationship between ambivalence and alexithymia. Hermerse & Mente [24] believed when comparing measurement tools of ambivalence and alexithymia there is much similarity. Although there is some differences also but totally ambivalence implies to trend and disability for presentation of the feeling in same time or present a feeling without real emotion which is overlapping with some features of alexithymia such as disability and trend to present a feeling and difficulty in identifying and presentation of feeling. Ambivalence commonly leads to deficit interpretation from feedbacks, which is related to low ability in disclosing emotions and communications [25].

High levels of alexithymia have been associated with impoverished emotion awareness,

which may be compromised by cognitive demands [26-27]. Indeed, emotion awareness and specification may be a requirement for adaptive emotion regulation [28]. Shahgholian *et al.* [10] conducted a study on 210 university students of Northern Iran. Alexithymia was significantly correlated with all emotional control subscales: significantly positive correlation with the emotional inhibition and rumination subscales, and significantly negative correlation with the aggression control and benign control subscales. Alexithymia had also a significantly direct correlation with the style of ambivalence over emotional expressiveness. Levant *et al.* [29] examined the assumption normative male alexithymia hypothesis that men with alexithymia would show the greatest deficits in identifying words for emotions discouraged by masculine norms that expressed vulnerability and attachment. Study on 258 college men, showed that scores on measures of alexithymia and normative male alexithymia were more strongly and uniquely predicted by suppression than repression and dissociation, while controlling for positive and negative affect and depression.

Especially about alexithymia the common believed expect higher alexithymia in males compare to females but Salminen *et al.* [3] reported same prevalence in both gender while Matilla *et al.* [8] in 2006 reported that prevalence of alexithymia was 9.9%. Men (11.9%) were more commonly alexithymic than women (8.1%). Alexithymia was associated with male gender, increasing age, low educational level, poor perceived health, and depression. Shahgholian *et al.*

[10] also reported no significant difference in alexithymia of students in Iranian population which is similar to our findings.

Finally, the results revealed there is relationship between alexithymia and emotional expression styles. Despite of potential relationship between alexithymia and emotional expression dimensions there is no comprehensive study in this area and the results are in contrast. These differences in results attributed to several reasons such as different kind of samples, different level of alexithymia, and disability of people with alexithymia in understanding emotional and cognitive questions, long questionnaire, ambivalence for expression of real feeling and attitudes in these peoples, different level of age groups. This is suggested to future studies to include homogeneous sample regarding screening for other disease, age, discipline, economy level, family education etc.

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