The Relations between Alexithymia, Negative and Positive Affects with Aggression Symptoms

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ABSTRACT

The purpose of this study was to determine the relationship between alexithymia, positive and negative affects with aggression. To this end, 300 students majoring in different disciplines at Razi University, Kermanshah, Iran, were selected to participate in the study using cluster random sampling method. The design of the research plan is descriptive - correlational. Questionnaires used for collecting data include SCL-90 questionnaire, alexithymia questionnaire (FTAS-20), and positive and negative affect scale (PANAS-X). In order to analyze the data, correlation and regression indicators were utilized. The results of the study reveal that there is a significant relationship between different aspects of alexithymia with aggression. However, only one aspect of alexithymia, "difficulty in identifying feeling", can be used for predicting aggression. The results of the study further indicate that there is a significant relationship between the negative affect with aggression, which can be used to predict the aggressive behavior. Whereas there is a negative relation between positive affect and aggression. Consequently, it can be concluded that emotions play a crucial role in predicting the aggression.

KEYWORDS: Alexithymia, negative affect, positive affect, aggression.

1. INTRODUCTION

Traditionally, psychologists have defined aggression as a behavior which is directed at another person, and its aim is to hurt him (Franken, 2006) [1]. Modern scholars believe that cultural approval for the sexual role persuades the aggressive behaviors. According to the view of "gender role strain", conflicting expectations of the masculine gender role exposes a lot of men in an intolerable situation. Men will be ashamed, unless they show behaviors that are in line with the culture in the society. Such a shame may lead to other behaviors like aggression, which has a strong authoritative feeling. This trend is strengthened by alexithymia, which is common among traditional men [2]. Alexithymia characterization, as a developmental defect, puts this concept in the context of personality traits, which is in a positive correlation with neuroticism, depression, and anxiety [3,4]. Sifneos (1973) [5]proposed the word alexithymia to identify a cluster of behaviors he often observed in individuals going through various mental and physical health problems. Some researchers [3]have assumed that alexithymia can be considered as a sequence of depression or anxiety as well as the impact of mental health and chronic physical disorders. It seems limited emotional awareness and faulty cognitive processes of people with alexithymia, may lead to the prolonged physiological arousal and neural responses to mental stress. Consequently, these factors potentially affect autonomic systems, safety and pituitary - adrenal bus disruptively [3].

The relationship between alexithymia with depression [6], anxiety [7], aggression [8], and a number of other mental and physical disorders [8,9] has been confirmed in many studies. Recent research by Pederson & Denollet [10]suggests that alexithymia is associated with many psychiatric and psychosomatic disorders such as major depression, posttraumatic stress disorder, drug abuse or dependence, physical disorders, the eating disorder and panic disorder. It is believed that alexithymia is a risk factor for many psychiatric disorders, because people with this condition are hardly pressed by correlates of physical excitement that is difficult to describe. This failure prevents the emotions to be adjusted, and consequently makes it difficult to adapt successfully [8].

On the other hand, negative affect (NA) and social inhibition (SI) are two psychological constructs that have been proposed in recent studies. People who have high scores in these two structures are faced with non-assertiveness to express their emotions to others [11]. Negative emotions depend on the tendency to experience negative feelings like hatred and anxiety in different positions. In addition, non-assertiveness refers to the personal trends to avoid expressing negative emotions in social interactions [12]. Due to the nature of positive and negative affects, they are regarded as two independent phenomena. People who have high positive affect are more energetic and succulent and enjoy life more; while people who have high negative affect are usually anxious, worried and have low energy. Existing research evidence suggests a relationship between positive affect and broad social relations, aiding behavior, attention, concentration and high decision-making ability. In contrast, negative affect is associated with subjective complaints, lower ability to cope with stress and anxiety [13]. Nasiri et al. (2010) reported a positive and significant relation between some aspects of

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difficulty in identifying feelings and describing them with aggression [13]. However, in their study, no significant association was found between aspects of thinking objectively with aggression. Regarding the importance of emotions and feelings in person's behavior, current study is performed to determine the relation between alexithymia, positive and negative affects with aggression.

2.   MATERIALS AND METHODS

The present research is a descriptive–correlation study that employs the subscales of positive affect, negative affect and alexithymia to anticipate the aggression. Furthermore, whole alexithymia, positive and negative affects are used in regression equation [14]for determining the criterion variable (aggression) [15,16]. In this study, 288 students at Razi University (located in Kermanshah, Iran) were selected through stratified random sampling. Gender and number of students of each faculty were considered, too. Then, the participants, voluntarily, responded to the questionnaires. The mean age of students was 21.87 (SD 2.22). The population consisted of 148 girls (51.4%) and 140 boys (48.6%). Also, 92.4% of them were single and 7.6% were married. The following questionnaires were used to collect data:

1. Alexithymia questionnaire (FTAS-20): Toronto Alexithymia Scale-20 measures three subscale through 20 questions. The Subscales include: difficulty in identifying feeling (7 items), difficulty in describing feelings (5 items), and externally oriented thinking (8 items) in five-point Likert scale from grade 1 (totally opposite) to grade 5 (totally agree). A total score is calculated for alexithymia questionnaire. Psychometric properties of the Toronto Alexithymia Scale-20 have been reviewed and approved in several studies. In persian version of Toronto Alexithymia Scale-20[17,18], Cronbach's alpha coefficients are calculated for total alexithymia, difficulty in identifying feeling, difficulty in describing feelings, and externally oriented thinking. Obtained numbers are 85%, 82%, 75% and 72%, respectively. The numbers indicate good internal consistency of the scale. Reliability of Toronto Alexithymia Scale-20 was confirmed by retesting during four weeks in a sample population of 67 people. Obtained numbers for total alexithymia and its subscales are *r=0.80* and *r=0.87.* Toronto Alexithymia Scale-20 concurrent validity in terms of correlation was reviewed and approved, between its subscales, with measures of emotional intelligence, psychological well-being and psychological distress. The Results of Pearson correlation coefficient showed that there is a significant correlation between subjects' scores in total alexithymia scale with emotional intelligence, psychological well-being and psychological distress. Correlation coefficients between alexithymia subscales with these variables were also significant. Confirmatory factor analysis results also approve the existing three factors of difficulty in identifying feeling, difficulty in describing feelings, and externally oriented thinking. In the present study, Cronbach's alpha is obtained 0.76 for this questionnaire.

2. SCL-90 Questionnaire: Early form of the SCL-90 questionnaire was planned by Drogotis, Lipman, & Covi (1973) to show the psychological aspects of physical and mental patients[19]. Drogotis et al. revised the questionnaire and the final form was published under the title "Symptom Checklist-90-Revised (SCL-90-R)" in 1984. This short checklist includes 90 five-option questions (no = 0, a little = 1, some = 2, high = 3, extreme = 4). Questionnaire evaluates 9 different aspects. In this research, only 10 questions of the aggression section are utilized. This test has concurrent validity, convergence, structural reliability and scalability for psychological change. Reliability of the test is reported 0.78 to 0.90 through retest. Also, Cronbach's alpha coefficient was obtained as 0.70 to 0.90. Similar studies were conducted in Iran on 2500 individuals by Mirzaei (1980) and Bagheri (1994) and the measured reliability was more than 0.80 [17]. In the present study, Cronbach's alpha for the subscales of aggression was 80.

3. Positive and Negative Affect Scale (PANAS-X): PANAS questionnaire was introduced by Watson et al. in 1994 [20]. In this scale, 60 feelings are nominated in words. Participants can be evaluated about their feelings in the past few weeks based on a 5-degrees scale (no, a little, some, high, extreme) according to Likert type [21]. The questionnaire not only measures both of first-order PANAS-X scales (positive affect and negative affect), but also it can measure 11 specific emotional states. Most people can answer 60 items in less than 10 minutes. The internal reliability (Cronbach's alpha coefficient) has been obtained more than 0.83 for the two scales [20]. In an Iranian study, reliability and validity of positive affect and negative affect scales has been calculated and verified by Mohammadi (2011). In the present study, Cronbach's alpha for this scale was obtained 0.82.

3.   RESULTS

Table 1 shows the mean age of samples as 21.88 (SD 2.19) and aggression mean as 7.11 (SD 5.51). According to the table, there is no significant relationship between age and aggression in men and women groups. But, educational achievements of women are more than men.

Table 1. Mean and SD of age, educational achievements and aggression in sample

Variable	Female		Male		Total		Significant level
	M	SD	M	SD	M	SD	
Age	21.68	1.78	22.07	2.53	21.88	2.19	*NS*
Educational achievements	15.73	1.38	15.39	1.48	15.56	1.44	*0.03*
Aggression	6.72	5.49	7.48	5.52	7.11	5.51	*NS*

The results showed that there is correlation of 0.41 between difficulty of identifying (first aspect of alexithymia) and aggression, correlation of 0.22 between difficulty in describing emotions (alexithymia second aspect) and aggression, correlation of 0.22 between externally oriented thinking and aggression. Also, correlation of 0.37 was observed between the total score of alexithymia and aggression. The study indicates that the correlations between negative affect with

aggression and positive affect with aggression are 0.37 and -0.18, respectively. The correlations are significant in the statistical classification of P<0.05. The results showed that there is no significant relation between aspects of externally oriented thinking and difficulty in describing emotions with aggression in women, while there is a relationship between first aspect and total alexithymia score with aggression. But in the men group, a significant positive relationship was observed between three aspects of alexithymia and aggression. Table 2 contains the results of the correlation between alexithymia, negative affect and positive affect with aggression. Also, means and standard deviations of men, women and the total samples are presented.

Table 2. Results of the correlation between alexithymia, negative affect and positive affect with aggression

Anticipant variables		Female			Male			Total		
		M	SD	r	M	SD	r	M	SD	r
alexithymia	Difficulty in identifying feelings	16.04	6.77	0.38	15.12	6.11	0.47	15.58	6.45	0.41
	Difficulty in describing feelings	13.34	3.53	0.10	13.28	3.24	0.36	13.31	3.38	0.22
	Thinking objectively	23.67	4.45	0.06	24.50	3.50	0.18	24.07	4.01	0.12
	Total	53.02	11.03	0.29	52.90	9.95	0.47	52.96	10.48	0.37
Negative affect		83.37	17.05	0.59	83.96	17.14	0.48	83.67	17.07	0.53
Positive Affect		76.11	20.75	-0.23	74.56	21.07	-0.14	75.32	20.89	-0.18

For predicting the aggression by alexithymia, negative and positive affect, regression was used. Results showed that regression model was meaningful and it could be done in two steps. The first step of the model can explain 28% of aggression variance. Value 0.53 of beta of negative emotion can predict aggression. In the second step, the model can explain 32% of the variance in aggression, and values 0.42 and 0.23 of negatively affect beta and difficulty of describing feelings can predict aggression, respectively.

Table 3. Results of regression analysis to predict the aggression by alexithymia, negative affect and positive affect

Step	R	R^2	F	sig	Anticipant variables	B	β	t	sig
1	0.53	0.28	113.53	0.001	Negative affect	0.14	0.53	10.64	0.001
2	0.57	0.32	83.69	0.001	Negative affect	0.11	0.42	7.72	0.001
					Difficulty in describing feelings	0.20	0.23	4.29	0.001

4. DISCUSSION AND CONCLUSION

The Current study aimed to determine the relationship between alexithymia, negative affect and positive affect with aggression. The Results of the study indicated that there is a significant relation between some aspects of alexithymia with aggression. In other words, the rate of aggression is related to alexithymia and it will increase by increasing the alexithymia. But, just the first aspect of alexithymia (difficulty in identifying feelings) is able to predict the aggression.

It is possible to illustrate the results neurons-psychologically. According to G. Ledoux (2003) stimuli cognitive components that are presented to the right hemisphere can be directly transferred to the left hemisphere by the corpus callosum. While, at the first, stimuli emotion load gets to the limbic system, then goes to the left hemisphere through anterior graft place. Thus, blocking the function of the corpus callosum can lead to alexithymia. In these circumstances, the person may still experience emotional feelings, but it is not aware of the cognitive components of feelings [22]. On the other hand, the right hemisphere often plays a role in emotion perception, too. Deficits in emotion perception is often seen in patients with right hemisphere damage [22]. Researchers believe that the limbic system is constructed from several structures that are involved in aggression. Amygdala is involved in the experience of anger. It seems the temporal lobe is involved in integration of memory, because of sharing in some of the limbic system structures. A part of memory which is related to insulting plays an important role in cognitive appraisal of threats when confronted with new stimuli. It seems LH frontal cortex inhibits responses and adjusts behavior according to social context [23, 24]. In comparison with previous studies, this research is consistent with an Iraniam study that was done by Ahadi (2010) [8].

On the other hand, the results showed that there are significant positive relationships between negative affect and aggression which can be used to anticipate the aggressive behavior. It means that the development of negative affect increases the aggression. Also, there is an inverse relationship between positive affect and aggression. When the amount of positive affect is more, aggression is less. But the results showed that positive affect cannot predict aggression.

In recent years, considerable interests have been shown by theorists and researchers about the role of emotion and emotional states, especially in workplaces. Naturally, positive and negative affects are two independent phenomena. People who have high positive affect are usually energetic and fresh and enjoy the life. On the opposite side, people who have high negative affect are commonly anxious, worried and have low energy. Many research evidences show a relationship between positive affect with broad social relations, aiding Behavior, attention, concentration and good decision-making ability. On the other hand, Negative affect deals with subjective complaints, lower ability to cope with stress and anxiety [13]. Positive and negative emotions raise individuals' sensitivity in response to environmental events due to their nature. It causes individuals to react with negative feelings such as negativity, anxiety and anger when exposing to negative emotions [25]. Regarding the relationship between emotions with mental disorders, it is seen that symptoms of inefficiency and failure to regulate emotions appeared in more than half of axis I disorders and all axis II

personality disorders which are mentioned in fourth reviewed of Diagnostic and statistical Manual of Mental Disorder (DSM) [26].

Practically speaking, the results of this research can be used for intervention plans and emotional management in order to treat disorders such as aggression. Limitation of this study lies in the use of statistical model. Therefore, generalization of results should be treated with caution. For future works, discussing the relation of alexithymia, positive and negative affects with other clinical disorders is suggested. Last, but not least, it should be argued that people with strong alexithymia are suffering from a lack of emotional expression. Thus, such people don't lay out their emotions which may lead to the incidence of aggression.

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