



## Emotional structure and coping strategies in patients with psychogenic non epileptic seizure, epilepsy and control groups

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### ABSTRACT

**Objective:** To compare the emotional structure and coping strategies in patients with psychogenic non epileptic seizures, epilepsy and control group. **Methods:** Among patients with complaining of epilepsy attacks that referred to clinic of Imam Reza (Peace be upon him) in Shiraz, 30 patients with psychogenic non epileptic seizures and 30 patients with epilepsy were selected. A total of 30 patients were considered as the control group. Data were collected via positive and negative affective scale (PANAS), coping strategies questionnaire. Then, they were evaluated by SPSS descriptive and one way ANOVA. **Results:** Indicated that the patients with PNES and epileptics rather to control group had higher negative affect and lower positive affect significantly. A significant difference is shown in the structures of emotional test and coping strategies of people with psychogenic non epileptic seizures, epilepsy and control groups. **Conclusions:** People with epilepsy and psychogenic non epileptic seizures than the control group obtained higher scores on the subscale of negative emotions and positive emotions subscale scores were lower. For the structure of coping strategies patients with psychogenic non epileptic seizures ineffective use of coping strategies so that most of the patients use the withdraw from the everyday stress and steer.

**Keywords:** Psychogenic non epileptic seizures, Epilepsy, Emotional structure, Coping strategies

### INTRODUCTION

Psychogenic non epileptic seizures (PNES), severe confusion and rapid changes in the movements, feelings and experiences that are often confused with epilepsy, but these attacks occur in the context of normal EEG waves. In the past it was thought that these attacks are like seizures but with the development of VIDEO-EEG, it was revealed that there are intense electrical discharges in the brain for epilepsy which are absent in the attacks to be considered as a sign of emotional disturbance (Ruche, Morris, Allen, 2001; Benbadis, Agrawal, Tatum, 2001). Psychogenic non epileptic seizures are

characterized by different terms such as Hysterical epilepsy, Pseudo seizure, Pseudo-epileptic seizure, non-epileptic pseudo seizure, hysterical epilepsy and non-epileptic attack disorder (Bodd, Janssen, CeesTheuns, Vanhoutvin, & Boon 2007). Diagnostic and Statistical Manual of Mental Disorders (DSM IV) of this disorder and somatoform disorders are classified as conversion disorder. Several studies have been conducted on the prevalence of the disorder; these attacks are 2-33 overall prevalence is estimated at 100,000. Research has shown that 20 percent of patients who have been admitted to epilepsy centers as well as 5% of outpatient centers are suffering from psychogenic non epileptic seizure disorder. In this disorder, there are more women than men, and female to male ratio of 1:4 has been reported (Reuber, 2008; Hall-patch, Brown, House, Stephanie, Kemp & Mayor, 2010). The ratio of girls to boys is estimated 1:2 and 1:1 for children aged less than ten years. In 22-38% of children with disorders like epilepsy, seizures are simultaneously. In 13-31% of child sexual abuse has been reported and more than 50 percent of these children have difficulty in school, and 78-94 percent of children encountered with this disorder with environmental stress such as parental conflict, parental addiction, and learning and attention problems (Hall-patch, Brown, House, Stephanie, Kemp & Mayor, 2010; Gates, 2002). 90% of adults with psychiatric disorders PNES have been observed, among the somatoform disorders (22-84%), dissociative disorders (91-22%), posttraumatic stress disorder (49-35 %), depression (85-57%), anxiety (50-11%) and personality disorders (67-25%) noted. Epilepsy affects approximately 15-10% of patients with PNES. In 20-27% of women and 16 - 3.5% of men with PNES, sexual abuse has been reported (Fizman, Viera, Leon & Nunes, 2004; Reuber, 2008). Bauman and Barkend showed that about 92% of patients reported at least one recent stress and defined a lot of stress in their lives. PNES often are considered as a way of coping with stressful events and circumstances beyond the control of the individual (Testa, Krauss, Lesser & Brandl 2012; Frances, Baker & Appleton, 1999). The patients in the face of stress use defense mechanisms such as avoidance of emotion, emotional distancing, and resigning (spinhove, Zitman & Roelofs, 2012). It looks that PNES is an escape mechanism to avoid responsibilities and often be stressful. PNES rather to epileptics and healthy subjects are dealing with more emotion-focused strategies than problem-focused mechanisms (Frances, Baker & Appleton, 1999). Studies states that (PNES) have a pattern of behavior that serves as a mechanism to reduce anxiety. These attacks are used to reduce anxiety, inner and outer, and by secondary gain, such as avoiding responsibility and respect are maintained around (stahop, Goldstein & Kuipe, 2003; Brooks, Baker, Boon & Kamp 2002). Patients who use mechanisms of emotion such as desire, denial and avoidance are in compliance with the disorder are weaker and, conversely, patients who use the problematic mechanisms are more compatible with the disease. The mechanisms with problem orientation negatively and positively oriented mechanisms for the improvement of mental - these patients are associated with their psychological remedy (kord, Will, Fish & et al 1991). Relapse rate and improving emotional well with the atmosphere and the mood is related to these people and their families .Research has shown that negative emotions and anxiety levels are higher in patients with PNES (Hall, 1993). Through the experience occur by negative emotions and unpleasant events. Telgan and Watson found that positive and negative emotions are associated with various disorders including depression and anxiety related disorders are shown negative emotions with positive emotions, positive and negative correlations (Watson, Clark & Tellegen 1988). Researches also show the psychological maladjustment in patients' families and the families of these patients have shown that health problems are more critical stress. (Stahop, Goldstein & Kuipe, 2003; More, Barker, Chadwick & Brown, 1994). Diagnosis of psychogenic non epileptic is very important and if this disorder is not diagnosed correctly lead to inappropriate use of anti-epileptic and anti-depressants in these patients and cause a lot of problems and cost for these patients. It may also be classified as refractory epilepsy patients on long-term prognosis are poor (Brooks, Baker, Boon & Kamp 2002). Effective treatment of patients with PNES are necessary. Among the known treatments for this disorder, cognitive - behavioral therapy and antidepressants are used (Robson, Drew, walker & Reuber, 2012; Deethasantosh, Kumar, Sankarasarma, 2001). Present study attempted to compare between the emotional structures and coping strategies among PNES, epileptics patients and normal control group.

## MATERIALS AND METHODS

### Participants:

Of all the people who complain about epilepsy visited the clinic of Imam Reza (Peace be upon him) after physician (epileptologist) participated in the research evaluated the patients. 30 patients with epilepsy, 30 patients with PNES and 30 normal were selected. All the participants had inclusion criteria such as, aged between 15 -60; at least 6 years education, had no major psychiatric and neurologic disorders. Besides all the participants signed informed consent and their participation were optional; moreover before data gathering research proposal approved by the research ethic committee of Shiraz University of Medical Sciences (SUMS).

### Tools:

Positive and negative affective scale (PANAS): is used to assess participants' affective states at a particular time. This scale is composed of twenty words that any words are describing different affect. Positive affect score is obtained from the sum of the positive ten words and the negative is too (Watson, Clark & Tellegen, 1988). The scale has acceptable psychometric characteristics in Farsi ( the native language of Iran), according Kaviyani et al (1382) validity coefficient of the scale were .77 and .83 for positive and negative respectively and internal consistency equal to .84 to .97.

Coping Strategies Questionnaire collection (Lazarus, Folkman, 1984). is asset of the cognitive and behavioral efforts to translate that is used to interpret and modify a stressful situation, and leads to the reduction of suffering and evaluated a wide range of thoughts and actions that people take when facing stress conditions underside or exterior stressful situations. This questionnaire has been designed by Lazarus and Folkman that includes and evaluates 66 items of methods for coping strategies, avoiding thrift, temperance, seeking social support, accountability; avoid resolving the issue prudent measures and positive reappraisal.

## RESULTS

Control group, and group with psychogenic non epileptic seizures (PNES) and epileptic group fit relative to the mean age and sex ratio of females to males in the psychogenic non epileptic seizures (PNES) is more than two control and epileptic groups. The control group and the group with epilepsy compared to patients with psychogenic non epileptic seizures have a higher level of education.

Table1: Participants demographic factors

	HC	PNES	EPIL
<b>N</b>	30	30	30
<b>Age</b>	35.65	39.90	36.67
<b>Sex (F:M)</b>	12:18	22:8	9:21
<b>Education</b>			
Primary & Guidance school (%)	11(36.6)	20(66.6)	4(13.3)
High school (%)	7(23.3)	6(20)	8(26.6)
College education	12(40)	4(13.3)	18(60)
<b>Age at onset of seizure</b>	-	19.48	30.47

People with epilepsy and psychogenic non epileptic seizures than the control group obtained higher scores on the subscale of negative emotions and positive emotions subscale scores were lower

Table2: Positive and negative emotions in patients with PNES, epilepsy and control group

	HC		PNES		EPIL		P
	M	SE	M	SE	M	SE	
<b>Positive Emotion</b>	35.60	4.19	22.66	3.11	23.40	3.78	.000
<b>Negative Emotion</b>	16.83	2.33	41.10	4.38	39.3	3.51	.000

**Post Hoc**

Positive HC&gt;PNES&amp;EPIL

Negative HC&lt;PNES&amp;EPIL

According to the findings, people with epilepsy and psychogenic non epileptic seizures received higher scores in Distancing and Escape-Avoidance subscales than the control group. The two groups compared with the control group received lower scores for positive reappraisal, Planful Problem Solving, Accepting Responsibility, Seeking Social Support and Self-Controlling. In the face of Confrontive Coping subscale is no significant difference between groups.

Table 3: Coping strategies in patients with PNES, epilepsy and control group

	HC		PNES		EPIL		P
	Mean	SD	Mean	SD	Mean	SD	
<b>Confrontive Coping</b>	8.56	2.8	8.20	2.9	7.30	2.1	.176
		4		9		1	
<b>Distancing</b>	7.43	2.6	9.20	3.5	8.10	3.0	.039
		8		1		3	
<b>Self - Controlling</b>	13.60	3.3	10.20	2.9	11.40	3.0	.000
		7		6		5	
<b>Seeking Social Support</b>	12.00	2.8	10.00	4.0	10.10	3.5	.050
		1		4		6	
<b>Accepting Responsibility</b>	8.16	1.7	6.96	2.2	6.10	2.1	.001
		4		3		3	
<b>Escape - Avoidance</b>	6.22	2.1	10.28	3.0	7.10	2.8	.008
		0		0		3	
<b>Planful Problem Solving</b>	10.63	2.6	8.73	3.0	8.50	2.6	.007
		5		3		2	
<b>Positive Reappraisal</b>	13.56	4.3	9.96	3.3	10.53	2.8	.000
		2		0		0	

## DISCUSSION

The main objective of this study was to investigate the emotional structure and coping strategies in patients with psychogenic non epileptic seizures, epilepsy and control groups. Research findings indicate that people with epilepsy and psychogenic non epileptic seizures than the control group experience more negative emotions. The amount of positive emotions in these two groups compared with the control located is in the lower levels. The productive factor of negative affect are negative experiences and unpleasant events, and the productive factor for positive emotions are the pleasant events and experiences events and people with psychogenic non epileptic seizures experience much more unpleasant emotional experience that are consistent with research Tojek et al (Tojek, Barkley, Mahr, Thomas, 2000). and Philip L.France (Frances, Baker & Appleton, 1999). It also showed that people with psychogenic non epileptic seizures, use the avoid and avoid saving and with problems show a little responsibility and try to use the steer to deal with problems. Effective mechanisms like the prudent resolution of the issue, positive reappraisal and seeking social support are complex reactions that people react emotionally and try to avoid dealing with the problems, accepting the personal role to support the intelligence services and

emotional in solving the problem and create positive implications with regard to the degree of individual development takes. These mechanisms in patients with psychogenic non epileptic seizures rarely used, and the findings are consistent by research of Marc testa (testa, krauss, Lesser & Brandl 2012). The research showed that people with seizures as well as the inefficiency of the mechanisms used to avoid saving and avoidance much more, and experienced more negative emotions compared to the control group.

### Conclusion

We investigated the emotional and coping strategies in patients with psychogenic non epileptic seizures, epilepsy and control group. People with epilepsy and psychogenic non epileptic seizures than the control group obtained higher scores on the subscale of negative emotions and positive emotions subscale scores were lower. For the structure of coping strategies patients with psychogenic non epileptic seizures ineffective use of coping strategies so that most of the patients use the withdraw from the everyday stress.

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