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## **The comparison of coping with stress among people with high and low neuroticism: A cross-cultural study**

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### **Abstract**

In order to study the differences on coping with stress among students with high and low neuroticism, data were collected from 200 Iranian males and females and 200 Indian males and females. Among Iranian males Mann-Whitney U test showed that males with high neuroticism scored higher on escape avoidance way of coping with stress ( $z = 2.12$ ,  $p < 0.05$ ), among Indian females those with higher neuroticism scored higher on escape avoidance coping ( $z = 2.15$ ,  $p < 0.05$ ) and accepting responsibility ( $z = 3.43$ ,  $p < 0.01$ ) and among Indian males those with lower neuroticism scored higher on positive reappraisal ( $z = 2.31$ ,  $p < 0.01$ ) than those with higher neuroticism. No significant differences were found on coping with stress among Iranian females with low and high neuroticism.

### **Key Words:**

Stress, Neuroticism, Across cultural, coping

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## 1. Introduction

Neuroticism has been considered as a general tendency to experience negative affects. People high in neuroticism have tendency of having irrational ideas, they are less able to control their impulses and they cope more poorly with stress than other people. Neuroticism as a personality trait is associated with experience of negative affect states which includes some 'facets' such as anxiety, anger, depression, self consciousness, impulsiveness , and vulnerability (Costa & Widiger, 1994). These characteristics often are associated with medical complaints that on careful examination have been proved false (Costa & McCrae, 1987). Neuroticism is stable and heritable personality traits involving temperamental sensitivity to negative stimuli (Tellegan, 1984). It means people with high on this trait are more prone to experience negative moods; it includes not only sadness, but also guilt, anxiety and hostility. Neuroticism not only serves as a vulnerability factor, it is also associated with poor prognosis for complete recovery from depression, it seems any type of chronic negative affect or emotion enhances the risk of disease (Friedman & Booth-Kewely, 1987). According to Eysenck individuals high on neuroticism tend to be emotionally liable, they frequently have complaints of worry and anxiety and body aches (e.g. head aches, stomach disturbance). People high in neuroticism respond quickly to stress and when the danger disappears the stress response decreases at lower speed than people who are stable. The related research has shown that people with high neuroticism are less able to use problem focused way of coping with stress. For instance, Hart and Hittner (1995) investigated situational anger reactivity and episodic coping in relation to

optimism and pessimism. They found that optimism scores were positively correlated with accepting responsibility and confrontive coping but negatively correlated with escape avoidance coping.

In another study also Weintraub and Carver (1986) examined the relationship between dispositional optimism and coping among the undergraduate students. They found positive association between optimism and problem –focused coping, elaboration of coping and seeking of social support and negative association with denial, disengagement and expressing feelings. McCrae and Costa (1986) in a study on relationship between neuroticism and coping mechanisms found that neuroticism was associated with increase in the use of hostile reaction, escapist fantasy , self blame, sedation, wishful thinking , passivity and indecisiveness.

### 1.1. Purpose of the study

This study was designed to find out how people with high and low neuroticism adopt different coping strategies In particular, one hypothesis was tested: students high in neuroticism compared with students low in neuroticism:

- H1. Would differ in coping with stress
- H2. Would use escape avoidance coping more often

## **2. Method**

### 2.1. Participants

100 females and 100 male students studying in the last year of bachelor's degree course in the Azad University of Tabriz, and 100 females and 100 males studying in post graduation in

the University of Pune had comprised the sample. Their age-range was from 20 to 27, and all were unmarried.

## 2.2. Measures

Following tools were used after obtaining a forward-backward translation into Persian language. Both tests were standardized test, they are presented below:

2.2.1. Five Factor Inventory (NEO-FFI) questionnaire developed by Costa & Mc Care (1992), containing 60 items, measuring five personality factors, has to be responded to on a 5-point scale ranging from 'strongly disagree' to 'strongly agree'.

Reliability: The internal consistency coefficient for the five subscales (Neuroticism, Extroversion, Openness, Agreeableness, and Conscientiousness) ranges from .56 to .81 in self reports and from .60 to .90 in observer ratings.

Validity: McCrae and Costa (1985, 1987) administered 80 bipolar adjective scales to BLSA subjects and their peer raters, when factored the five factors appeared and those showed strong support of convergent and discriminate validity with NEO-FFI.

### 2.2.2. Ways of Coping Questionnaire

This Questionnaire was developed by Lazarus and Folkman (1984). It consists of 66 items and eight scales. The scales are

1. confronting coping
2. distancing coping
3. self-controlling
4. seeking social support
5. accepting responsibilities
6. escape-avoidance
7. planful problem solving

#### 8. positive reappraisal.

These items have to be responded to on a 4-point scale ranging from 'not used' to 'used to a great deal'.

Reliability: The alpha coefficient for the eight scales is higher than the alpha reported for most of the other measures of coping process. The alpha confident reported for confronting coping is .70, distancing .61, self controlling .70, seeking social support .76, accepting responsibility .66, escape avoidance .72, planful problem solving .68, and positive reappraisal .79. For the present study forward-backward translation was done for English to Persian and back, the reliability of Persian version was ranged from .60 to .71 respectively. For the Indian sample the original English version was used and the reliability ranged from .67 to .78 for the scales of the coping questionnaire.

### 2.3. Procedure

The NEO-FFI questionnaire along with Ways of Coping Questionnaire was administered to groups of less than 20 students in their class room of two countries sample; the investigator introduced her and briefly explained the purpose of the study. Participants were told to raise their hands if they had any questions so that the researcher could assist them.

### 2.4. Statistical Analysis

Since the data was not normally distributed non-parametric statistic were employed. In the present research Mann-Whitney U was used in order to compare the differences of means in groups.

## 3. Results and discussion

The results obtained mainly confirm the hypothesis except for Iranian female student. In table1. Mann-Whitney U test

shows that there was a significant difference on escape avoidance coping (Mann-Whitney  $U= 2.12$ ,  $p<0.05$ ) between males with low and high neuroticism among Iranian sample. Those with high neuroticism scored higher on escape avoidance coping than those with low neuroticism. t-test also showed significant difference on escape avoidance ( $t= 2.09$ ,  $p<0.05$ ), with males having high neuroticism scores, scoring higher ( $M=1.37$ ,  $SD=.41$ ) than those with low neuroticism ( $M= 1.19$ ,  $SD=.46$ ). In table. 2 Mann-Whitney U test shows that among Indian female students there was significant differences on escape-avoidance coping (Mann-Whitney  $U= 2.15$ ,  $p<0.05$ ), females high on neuroticism scored higher than those with low neuroticism. Accepting responsibility also differed significance (Mann-Whitney  $U= 3.43$ ,  $p<0.01$ ) among these two groups, females with high neuroticism scored higher on accepting responsibility than females with low neuroticism. Data was subjected to t-test also showed that females with high ( $M=1.23$ ,  $SD=.52$ ) neuroticism scores, scored higher on escape-avoidance ( $t=2.05$ ,  $p<0.05$ ) than those with low neuroticism ( $M= .99$ ,  $SD=.64$ ). Females having high scores on neuroticism ( $M=1.85$ ,  $SD=.62$ ) scored higher than females with low neuroticism ( $M=1.34$ ,  $SD=.74$ ) on accepting responsibility ( $t=3.71$ ,  $p<.001$ ). In table3. Mann-Whitney U test shows that there was significant difference on positive reappraisal way of coping (Mann-Whitney  $U= 2.31$ ,  $p<0.05$ ) among males with high and low neuroticism, males with low scores on neuroticism scored higher on positive reappraisal ways of coping than males with high neuroticism. t-test also showed that Indian males scoring lower ( $M= 1.89$ ,  $SD= .54$ ) on neuroticism scored higher on positive reappraisal way of coping ( $t= 2.52$ ,  $p<0.05$ ), than those with high neuroticism ( $M=1.62$ ,  $SD=.53$ )

**Table1. Differences on coping with stress of males with high and low neuroticism in the Iranian sample**

	Neuroticism	Mean	Mean Rank	Sum of Ranks	z
Confrontive coping	low	1.69	50.4	2570.5	0.04
	high	1.69	50.6	2479.5	
Distancing Coping	low	1.46	49.16	2507	0.48
	high	1.51	51.9	2543	
Self Controlling Coping	low	1.74	50.8	2591	0.11
	High	1.7	50.18	2459	
Seeking Social Support	Low	1.74	53.05	2705.5	0.89
	High	1.61	47.85	2344.5	
Escape- Avoidance Coping	Low	1.19	44.5	2269.5	2.12*
	High	1.37	56.74	2780.5	
Planful Problem Solving	Low	1.66	50.18	2559	0.12
	High	1.65	50.84	2491	
Accepting Responsibility	Low	2.03	46.26	2359.5	1.5
	High	2.22	54.91	2690.5	
Positive Reappraisal	Low	1.7	54.54	2781.5	1.42
	high	1.56	46.3	2268.5	

N= 100      \*= p<0.05

**Table2. Differences on coping with stress of females with high and low neuroticism in the Indian Sample**

	Neuroticism	Mean	Mean Rank	Sum of Ranks	z
Confrontive Coping	Low	1.14	45.87	2156	1.51
	High	1.34	54.6	2894	
Distancing Coping	Low	1.32	50.87	2391	0.12
	High	1.3	50.17	2656	
Self Controlling Coping	Low	1.56	51.22	2407.5	0.24
	High	1.54	49.86	2642.5	
Seeking Social Support	Low	1.46	45.56	2141.5	1.61
	High	1.67	54.88	2908.5	
Escape- Avoidance Coping	Low	0.99	43.9	2063.5	2.15*
	High	1.23	56.35	2986.523	
Planful Problem Solving	Low	1.52	48.94	2300	0.51
	High	1.63	51.89	2750	
Accepting Responsibility	Low	1.34	39.99	1879.5	3.43***
	High	1.81	59.82	3170.5	
Positive Reappraisal	low	1.81	49.48	2325.5	0.33
	High	1.87	51.41	2724.5	

N=100      \*=p<0.05      \*\*\*=p<0.001

**Table 3. Differences on coping with stress of males with high and low neuroticism in Indian sample**

	Neuroticism	Mean	Mean Rank	Sum of Ranks	z
Confrontive Coping	Low	1.39	51.29	2462	0.26
	High	1.37	49.77	2588	
Distancing Coping	Low	1.46	56.04	2690	1.84
	High	1.26	45.38	2360	
Self Controlling Coping	Low	1.64	55.09	2644.5	1.53
	High	1.49	46.26	2405.5	
Seeking Social Support	Low	1.5	50.72	2434.5	0.07
	High	1.5	50.3	2615.5	
Escape-Avoidance Coping	Low	1.12	48.66	2335.5	0.61
	High	1.18	52.2	2714.5	
Planful Problem Solving	Low	1.62	51.32	2463.5	0.27
	High	1.58	49.74	2586.5	
Accepting Responsibility	Low	1.49	49.93	2396.5	0.19
	High	1.52	51.03	2653.5	
Positive Reappraisal	low	1.89	57.47	2758.5	2.31*
	High	1.62	44.07	2291.5	

N= 100 \* = p&lt;0.05

Escape- avoidance way of coping was high among Iranian males with high neuroticism (table.1). Among Indian female students those with higher scores on neuroticism scored higher on escape avoidance way of coping (table.2), these findings are in the same line with studies done by McCrae and Costa (1986), also Kardum and Krapic (2000) on their study about personality traits, stressful life events and coping styles in early adolescence coping, found that neuroticism and psychoticism have significant positive effects on avoidance coping style. Among Indian female students those with higher neuroticism scored higher on accepting responsibility (table.2), it suggests that those with higher neuroticism blame themselves more than those with lower neuroticism, this finding also comes in the same line with McCrae and Costa's (1986) findings in which they claimed neuroticism is related

with increase in the use of self-blame as a coping mechanism. Among Indian male students those with lower neuroticism scored higher on positive reappraisal way of coping which indicates that those with lower neuroticism are more optimistic in their view about current hassles. Among Iranian female students no significant difference was found among those with high and low neuroticism, this can be due to the nature of sample, as a group they have higher neuroticism in comparing with Iranian males the perception of stress is not confined to just the individual level but concerns the entire community. Perhaps the awareness of common fate has resulted in homogeneity.

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مقایسه مقابله با استرس در بین افراد با نورو تیسم بالا و پایین:  
مطالعه بین فرهنگی

دکتر نعیمه محب

چکیده

به منظور مطالعه تفاوت در مقابله با استرس در بین دانشجویان با روان رنجورخویی بالا و پایین، داده ها از ۲۰۰ نفر دانشجوی مرد و زن ایرانی و ۲۰۰ نفر دانشجوی مرد و زن هندی در دامنه سنی ۲۰ الی ۲۷ جمع آوری گردید. در بین دانشجویان مرد ایرانی تست من ویتنی-یو نشان داد مردانی که نمرات روان رنجورخویی بالایی داشتند در روش مقابله ای اجتناب- فرار ( $z = 2.12$ ) ( $p < 0.05$ ) نمرات بالاتری کسب کردند. در بین زنان هندی کسانی که نمرات روان رنجورخویی بالایی داشتند در روش مقابله ای اجتناب- فرار ( $z = 2.15$ ) ( $p < 0.05$ ) و قبول مسئولیت ( $z = 3.43$ ,  $p < 0.01$ ) نمرات بالاتری آوردند. در بین دانشجویان مرد هندی آنهایی که نمره روان رنجورخویی پایینی داشتند نمرات بالاتری در شیوه مقابله ای ارزیابی مجدد مثبت ( $z = 2.31$ ,  $p < 0.01$ ) به دست آوردند. هیچ تفاوت معناداری در مقابله با استرس بین دانشجویان زن ایرانی که نمرات پایین و بالایی در روان رنجورخویی داشتند به دست نیامد.

واژه های کلیدی: استرس، روان رنجور، بین فرهنگی، راههای مقابله.