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IMPACT OF STRESS VULNERABILITY ON ANXIETY AND DEPRESSION

Qudsia Tariq[1], Sumbul Mujeeb[2]

[1] Department of Psychology, University of Karachi,
[2] Sir Syed University of Engineering and Technology, Karachi,
PAKISTAN.

[1]qudsiatariq@yahoo.com

ABSTRACT

The problem of the research was to see the difference in stress vulnerability in patients experiencing anxiety and depression. It was hypothesized that 1) there will be a difference in stress vulnerability levels in state of anxiety and depression 2) there will be gender difference in stress vulnerability in patients experiencing state of anxiety 3) there will be gender difference in stress vulnerability in patients experiencing state of depression. A sample of 100 patients (50 males and 50 females) was selected through purposive sampling from different psychiatric hospitals of Karachi. Age range was from30 years to 50 years. 50 patients (25males and 25 females) experiencing anxiety were selected and 50 patients (25 males and 25 females) experiencing depression were selected. Stress vulnerability scale was administered to see the difference in stress vulnerability in patients experiencing of anxiety and of depression. Then results were calculated. Mean was calculated for scores on stress vulnerability scale. Difference in mean scores was seen in patients experiencing state of anxiety and state of depression and between male patients and female patients experiencing state of anxiety and state of depression.

Keywords: State of anxiety, state of depression, stress vulnerability, mean, purposive sampling

INTRODUCTION

Stress has generally been viewed as a set of neurological and physiological reactions that serves an adaptive function (Franken, 1994). Generally, stress research has been aimed at studies involving the body's reaction to stress and the cognitive processes that influence the perception of stress (Pearlin, 1982).

The stress vulnerability model was proposed by Zubin and Spring (1977). It proposes that an individual has unique biological, psychological and social elements. These elements include strengths and vulnerabilities for dealing with stress.

Many researches have been done on stress vulnerability. A research was conducted to study the prevalence of anxiety and depression in medical students and in humanities students and to assess the relationship between symptoms of anxiety, symptoms of depression and Big-Five personality dimensions and vulnerability to stress in medical students. Results indicated that symptoms of anxiety and depression are widespread in medical students and in humanities students. Severity of symptoms of anxiety and symptoms of depression in medical students is negatively related to emotional stability and positively related to stress vulnerability. (Bunevicius, Katkute and Bunevicius, 1999).

Gender difference also exists in stress vulnerability. Females are found to be more prone to stress as compared to males. In one of the few prospective studies, Pine et al. did investigate a predictive relationship between life events during adolescence and both depressive as well as

generalized anxiety disorder symptoms. Interestingly, the association with anxiety was limited to females, consistent with differential vulnerability to stress across genders.

Another research discovered gender differences for anxiety, depression and stress among survivors of suicide bombings in Lahore, Pakistan. The results point to considerable gender differences in depression, anxiety and stress reported by the survivors of suicide bombings. The result further showed that female survivors scored higher on depression, anxiety and stress than their male counterpart. Moreover, positive significant relationship was found between stress and depression, stress and anxiety, depression and anxiety (Farooqi & Habib, 2010).

In the light of previous researches the objective of this study was to see the difference in stress vulnerability in patients experiencing state of anxiety and state of depression. It was hypothesized that 1) there will be a difference in stress vulnerability levels in state of anxiety and state of depression 2) There will be gender difference in stress vulnerability in patients experiencing state of anxiety 3) There will be gender difference in stress vulnerability in patients experiencing state of depression. The controls were age, gender, material, target population and hospital setting.

METHODOLOGY

This section includes sample, target population, materials, ethical consideration, statistical analysis and procedures.

Sample

A Sample of 100 patients suffering from depression and anxiety disorder were selected through purposive sampling from different hospitals of Karachi including both private and government hospitals. The sample included 50 male patients and 50 female patients. Their age ranged from 30 years to 50 years. The selection criterions was based on the fact that the patient should have some knowledge of English language so that they could better comprehend the items on the scales being used The second criterion for selection was that should have only been diagnostically labeled as either depressions patients or anxiety patients and not diagnosed for any other disorder along with it.

Material

A Demographic sheet

was designed to gather the information of the participants which Included name, age, gender, qualification, marital status, occupation and the labeled disorder.

Stress vulnerability scale

a subscale of Stress Audit Questionnaire. (Miller and Smith, 1983, 1988) was used. Stress Vulnerability Scale (SVS) is used to test measures the individual's vulnerability to stress that how much a person is prone to physical and psychological stress. It contains 20 items arranged in a 5 point Likert type scale. It entails degrees ranging from 1 (always) to 5 (never) respectively and the subject had to rate each item according to how much of the time the statement was true of him/ her. To get the final score, the score was added up and 20 were subtracted from the actual score. A score below 10 indicates excellent resistance to stress. A score over 30 indicates some vulnerability to stress; and subject is seriously vulnerable if his/ her score is above 50.

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Experimental Design

In this study the Survey co relational research design was used to explore how Stress can make patients vulnerable towards certain disorders. This method was preferred because it is less time consuming and efficient.

Procedure

The study was conducted at different hospitals of Karachi. The initial step was to get the consent forms read and signed by the participants. The participants were clearly communicated their rights to withdraw from the study any time they desired. Then their verbal consent was taken, after taking their agreement and providing them with necessary information, the patients filled in the demographic sheet which comprised of their personal information .After completing the ethical formalities the participants were presented with the scale that measured vulnerability towards stress It was explained to Responses were noted down and later the results were then calculated.

Ethical Considerations

Verbal consent of participants was taken before conducting the research study. The participants of the study were told about their right to withdraw from study any time they felt any kind of threat and they were reassured of confidentiality related to their personal information.

Statistical Analysis

Mean was calculated for scores on stress vulnerability scale. Difference in mean scores was seen in patients experiencing state of anxiety and state of depression and between male patients and female patients experiencing state of anxiety and state of depression.

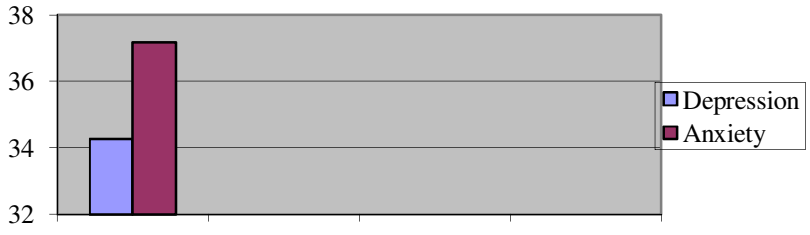
RESULTS

This section included the descriptive statistics, graphs and tables. Refer to the tables and graphs below for results.

Table 1. Table showing mean values for scores on stress vulnerability scale in patients experiencing state of anxiety and state of depression

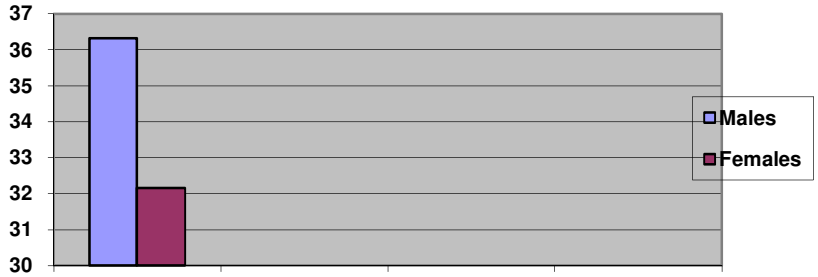
	Male	Female	Both
Depression	36.33	32.166	34.25
Anxiety	37.166	37.166	37.166

Note: Table 1 showing mean values for patients experiencing state of depression is 34.25 and means values for patients experiencing state of anxiety is 37.166.



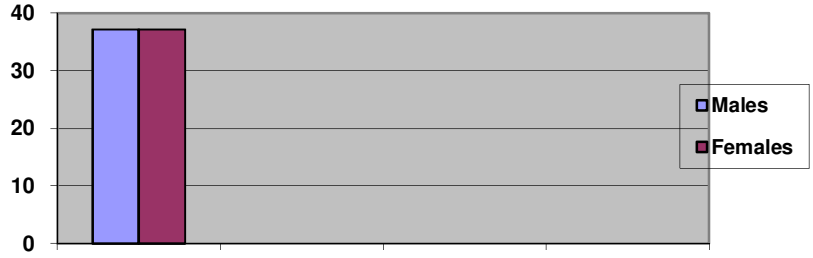
Graph 1. Showing mean values for stress vulnerability in patients experiencing state of anxiety and state of depression

Note: as shown in graph 1, mean values for patients experiencing state of depression is 34.25 and means values for patients experiencing state of anxiety is 37.166



Graph 2. Showing gender difference in stress vulnerability in patients experiencing state of depression

Note: As shown in graph 2 mean value for male patients experiencing state of depression is 36.33 and means value for female patients experiencing state of depression is 32.166 hence there is significant difference found



Graph 3. Showing gender difference in stress vulnerability in patients experiencing state of anxiety

Note: As shown in graph 3 mean value for male patients experiencing state of anxiety is 37.166 and means value for female patients experiencing state of anxiety is 37.166 hence no difference is found

DISCUSSION

The first hypothesis was there will be a difference in stress vulnerability levels in state of anxiety and depression. According to the results difference is found between stress vulnerability level in state of anxiety and depression. There might be several reasons for this difference in stress vulnerability level in state of anxiety and depression.

One reason for this difference might be the role of personality characteristics. The role of stress vulnerability factors in the long-term course of anxiety and depressed mood Specifically, the role of personality characteristics (neuroticism, extraversion), physical and psychological stressors (clinical status, disease influence on daily life, major life events), and coping and social support at the time of diagnosis predict changes in anxiety and depressed mood 3 and 5 years later. (Evers, Kraaimaat, Geenen, Jacobs and Bijlsma, 2002)

Other reason could be the perceived level of stress experienced during the state of anxiety and state of depression. Along with the perceived stress the gender and age differences also play a significant role in determining the stress level. According to Bergdah, 2002 women in the 30 to 39-year age group are exposed to high stress and are therefore a vulnerable group.

Another reason could be due to the differences in AMPA receptor function may be linked to individual variations in stress vulnerability. Duels to differences in APMA receptors, some

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individuals are more prone to stress while others are less prone to stress. Increased vulnerability aversive experiences are one of the main risk factors for stress-related psychiatric disorders as major depression. However, the molecular bases of vulnerability, and stress resilience are still not understood. Increasing clinical and preclinical evidence suggests a central involvement of the glutamatergic system in the pathogenesis of major depression. (Schmidt, M. V. et al, 2010)

Individual's reactivity to stress also determines vulnerability to stress in different conditions. Reactivity is the likelihood that an individual will react emotionally or physically to daily stressors and depends on the individual's resilience or vulnerability (Bolger & Zuckerman, 1995). The stressor-reactivity path illustrates that socio demographic, psychosocial, and health factors modify how daily stressors affect daily well-being. Individual's personal resources (e.g., their education, income, feelings of mastery and control over their environment, and physical health) and environmental resources (e.g., social support) affect how they can cope with daily experiences (Lazarus, 1999).

The socio demographic features like education that also plays a role in how an individual cope with stressful situations. Consistent with research on socio economic inequalities in health, study indicated that better educated adults reported fewer physical symptoms and less psychological distress than less-educated adults (Grzywac, Almeida, Neupert, & Ettner, 2004). In contrast to studies of life-event stressors, this study found that college-educated individuals reported more daily stressors than those with no more that high-school educated. However, college educated respondents were less reactive to stressors, which indicate that socio-economic differentials in daily health could be attributed to differential reactivity to stressors rather than to differential exposure to stressors. Participants who experienced chronic stressors were more likely than those who did not to report psychological distress on days when they experienced daily stressors (Serido, Almeida, & Wethington, 2004). For women, the interaction of home hassles and chronic stressors was significant; for men, it was the interaction of work hassles and chronic stressors that was significant.

The difference found between stress vulnerability level in state of anxiety and depression could be due to etiological factors. Anxiety and depression are related to each other at the level of symptoms and disorder. A study tested the etiological factors from two cognitive vulnerability-stress models of depression (Hopelessness theory and Beck's Theory). The Comparison of the two theories implies that their cognitive vulnerability-stress components overlap largely in the prediction of depression. (Hankin, Abramson, Haeffe and Miller, 2004)

Different people adopt different coping strategies to deal with stress so people experiencing state of anxiety and state of depression use different ways of coping with stress. Some methods of coping with life's difficulties seem to be more effective than others. People who use effective coping skills seem to deal with stress better than those who do not. They can handle much more stress before they develop symptoms of mental disorder. (Warner R. 1994)

Another reason might be that different people have diverse ways of thinking about themselves and world around them so people experiencing state of anxiety and state of depression have different ways of thinking about themselves and world around them, which could have affected their vulnerability to stress. This is more than simple being optimistic or pessimistic-there are certain thinking methods which help people to cope better than others(Thomas P. 1997) (Warner R. 2000)

Individual differences play a major role in stress vulnerability. Stress is not caused by a single factor it can be used by different other factors. Some stressors are unhealthier than other

stressors, and some individuals are more prone to the effects of stressors than other individuals. To understand these processes one must consider both the objective characteristics of daily stressors and, include their frequency, type (e.g., interpersonal tension, being overloaded or overwhelmed at work), focus of involvement (e.g., whether the stressor involves other persons, such as a sick family member and objective severity (e.g., degree of unpleasantness and disruption for an average person). Individuals evaluate stressors in terms of their perceived severity and in terms of how much they are perceived as disturbing daily goals and commitments. Both objective and subjective components of daily stressors affect daily well-being (Cohen, Kessler, & Gordon, 1997)

The second hypothesis was there will be gender difference in stress vulnerability in patients experiencing state of anxiety. The third hypothesis was there will be gender difference in stress vulnerability in patients experiencing state of depression. The results indicated that there is a gender difference in stress vulnerability in state of depression but there is no gender difference in stress vulnerability in state of anxiety. There might be several reasons for this gender difference

One reason might be self-esteem. Many researchers showed gender differences in self-esteem (Kearney, 1999). Girls face more challenges to their self-esteem and more problems in living in early adolescence than boys do (Petersen, Sarigiani, & Kennedy, 1991). That is, girls must deal with more stressors simultaneously.

One significant reason for this difference could be the gender roles in our society. By age 11 children are aware that the female gender role is less valued than the male role. They believe that there are greater restrictions on behavior for females and that there is gender-based discrimination (Intons-Peterson, 1988). As they integrate these beliefs into their self-concept, girls may begin to feel less worthwhile than boys, or at least less appreciated. Many studies have found a decline in self-esteem in girls after age 9, whereas boys; self-esteem tends to stabilize (Ruble & Martin, 1998). Gender role also influences how children and early adolescents cope with problems (Broderick & Korteland, 2002).The females appear to be more concerned with failures and have lower expectation of success. Although both boys and girls are concerned about body image girls also worry more than boys about appearance and weight after puberty (e.g., Barker & Galambos, 2003; Jones, 2004; Smolak, Levine, & Thompson, 2001). Girls more often have lower expectations of success than boys (Ruble, Gruelich, Pomerantz, & Gochberg, 1993).

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