

## Assessment of Eating Behavior and Depression, Anxiety and Stress in Young Adults

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### Abstract

The present study was undertaken to observe the depression, anxiety and stress and eating behavior levels in young adults. A total of 100 male and female young adults were part of the study after obtaining the written informed consent. The following criteria were used in recruiting the participants. Depression, anxiety and stress were assessed using DASS-42 questionnaire. The questionnaire was sent through email and obtained the data. There was a significant higher levels of depression scores in females when compared to males ( $P < 0.01$ ). There was a significant higher levels of anxiety scores in females when compared to males ( $P < 0.01$ ). There was a significant higher levels of stress scores in females when compared to males ( $P < 0.001$ ). There was a significant higher levels of EAT-26 scores in females when compared to males ( $P < 0.001$ ). The scores of EAT-26, depression, anxiety and stress are higher in females when compared with males. The study recommends regular assessment of depression, anxiety and stress in young adults and also training them the remedies to overcome stress is necessary.

**Keywords:** Depression; Anxiety; Stress; Young Adults

### Introduction

Stress is "a non-specific and generalized response to stressors" [1]. Stress is not always bad, as positive thinker may experience high stress, in making the efforts to reach the set goal, but this stress helps the individual to achieve the goal. Whereas, negative thinker with no aim or goal may experience low stress, which is a bad stress that is enough to have a bad impact on an individual's physical and mental health status [2]. Hence, "stress is not what happens to a person, but how the person reacts to it" [3]. Stress is integral to life as all individual's experience stress at home, work place and academic environment [4]. In the 21<sup>st</sup> century, people of all age groups are exposed to high stress levels. For instance, approximately 500 million people are affected by mental health disorders worldwide and among these a majority of them are affected with depression, anxiety and stress [5]. In India 10-20 persons out of every 1000 have been reported to be suffering from mental illness [6]. Stress has both positive and negative impact. Up

to a limited level of threshold, stress may be beneficial. However, beyond this level, there will be sharp fall in the productivity. Hence, one should be aware of the indicators of stress. Common indicators of stress are irritability, insomnia, anxiety and/or feeling of giving up. However, the peak level of stress and indicators of stress varies from person to person. Considering these facts, Hans Selye stated that 'eustress' or 'good stress' increases productivity and 'distress' or 'bad stress' decreases the productivity [2]. Eustress is required as it helps to complete a task; in contrast, distress may lead to depression [7]. Stress has effects on eating behavior. Higher levels of stress may have adverse effects on the eating behavior. The present study was undertaken to observe the depression, anxiety and stress and eating behavior levels in young adults.

### Materials and Methods

- **Study participants:** A total of 100 male and female medical professionals were part of the study after obtaining the written informed consent. The following criteria were used in recruiting the participants.

- **Inclusion criteria:** Healthy young adults both male and female participants with in the age group of 18-20 years and willing to participate in the study were recruited in the study.
- **Exclusion criteria:** Participants who are not willing to participate were excluded from the study.
- **Assessment of depression, anxiety and stress:** Depression, anxiety and stress was assessed using DASS-42 questionnaire [17]. The questionnaire was sent through email and obtained the data.
- **EAT-26:** EAT-26 was used to assess the eating behavior. The questionnaire was sent through email and obtained the data.
- **Data analysis:** Data was analyzed using SPSS 2.0. Student t test was used to observe the difference between the male and female participant’s scores. P value less than 0.05 was considered as significant.
- **Ethical consideration:** The study was approved by institutional human ethical committee.

**Results**

Results were presented in table 1. There was a significant higher levels of depression scores in females when compared to males (P<0.01). There was a significant higher levels of anxiety scores in females when compared to males (P<0.01). There was a significant higher levels of stress scores in females when compared to males (P<0.001). There was a significant higher levels of EAT-26 scores in females when compared to males (P<0.001).

Parameter	Males (n=40)	Females (n=60)	P value
Depression	12 ± 4	14 ± 3.22	0.0069**
Anxiety	9 ± 1.44	11 ± 4.15	0.0042**
Stress	12 ± 5.82	19.21 ± 3.26	<0.0001***
EAT-26	14 ± 2.11	16.33 ± 1.88	<0.0001***

**Table 1:** Depression, anxiety and stress levels of the participants (\*\*P<0.01 is significant. \*\*\*P<0.001 is significant).

**Discussion**

There was a significant higher levels of depression scores in females when compared to males (P<0.01). There was a significant higher levels of anxiety scores in females when compared to males (P<0.01). There was a significant higher levels of stress scores in females when compared to males (P<0.001). There was a significant higher levels of EAT-26 scores in females when compared to males (P<0.001). Stress has negative impact on psychologi-

cal, behavioural, and biological functions [8]. Major psychological changes induced by stress include anxiety, depression, personality disorders, mood disorders, cognitive impairment, and structural changes in the central nervous system and/or early death [9]. Major behavioural changes, those induced by stress like eating disorders, sleep disorders, substance abuse, increased anger, negative affectivity and social inhibition/isolation. Many studies have focused on the major biochemical changes induced by stress like increase in heart rate, blood pressure, secretion of corticosteroids, catecholamines, vasopressin, growth hormone, blood glucose levels and suppression of immune system, secretion of gonadotropins and thyroid hormones [10]. Poorly managed stress in daily life, may decrease the quality of life both subjectively and objectively [11]. Chronic stress may lead to neuronal loss in the brain and shortens the life span by accelerating the cellular ageing mechanisms [12]. Vast research had been done and studied the effects of stress on health and stated that chronic stress suppresses the immune system and results in illness [13]. Common physical illness associated with stress are asthma, gastro intestinal disorders such as peptic ulcer, ulcerative colitis, coronary heart diseases, rheumatoid arthritis, migraine, and diabetes mellitus [14,15]. Strong association was reported between stress and psychiatric illness, which include neuroses, depression, schizophrenia and neurotic disorders [16].

**Conclusion**

The scores of EAT-26, depression, anxiety and stress are higher in females when compared with males. The study recommends regular assessment of depression, anxiety and stress in young adults and also training them the remedies to overcome stress is necessary.

**Conflicts of Interest**

None declared.

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**Bibliography**

1. Selye H. The stress of life. Rev. ed. New York: McGraw-Hill (1978).
2. Selye H. "A Personal message from Hans Selye". *Journal of Extension* 18 (1980): 7–11.
3. Selye H. Stress without distress. 1st ed. Philadelphia: Lippincott (1974).

4. Ekpenyong CE., *et al.* "Associations Between Academic Stressors, Reaction to Stress, Coping Strategies and Musculoskeletal Disorders Among College Students". *Ethiopian Journal of Health Sciences* 23 (2013): 98.
5. Rao S and Ramesh N. "Depression, anxiety and stress levels in industrial workers: A pilot study in Bangalore, India". *Industrial Psychiatry Journal* 24 (2015): 23-28.
6. WHO | India WHO (2017).
7. Behere SP., *et al.* "A Comparative Study of Stress Among Students of Medicine, Engineering, and Nursing". *Indian Journal of Psychological Medicine* 33 (2011): 145.
8. Masthoff ED., *et al.* "The relationship between stress and quality of life in psychiatric outpatients". *Stress Health* 22 (2006): 249-255.
9. Schneiderman N., *et al.* "Stress and Health: Psychological, Behavioral, and Biological Determinants". *Annual Review of Clinical Psychology* 1 (2005): 607-628.
10. Ranabir S and Reetu K. "Stress and hormones". *Indian Journal of Endocrinology and Metabolism* 15 (2011): 18-22.
11. Ebbeskog B and Ekman SL. "Elderly persons experiences of living with venous leg ulcer: living in a dialectal relationship between freedom and imprisonment". *Scandinavian Journal of Caring Sciences* 15 (2001): 235-243.
12. Epel ES and Lithgow GJ. "Stress biology and aging mechanisms: toward understanding the deep connection between adaptation to stress and longevity". *The journals of gerontology. Series A, Biological sciences and medical sciences* 69.1 (2014): S10-16.
13. Salleh MR. "Life Event, Stress and Illness". *Malaysian Journal of Medical Sciences* 15 (2008): 9-18.
14. Liu Bao-Wen., *et al.* "Renal disease and neural circuits: brain-kidney crosstalk". *International Journal of Clinical and Experimental Medicine* 9 (2016): 5326-5333.
15. Liu F., *et al.* "Neuronal responses to vestibular stimulation in the guinea pig hypothalamic paraventricular nucleus". *European Archives of Oto-Rhino-Laryngology* 254 (1997): 95-100.
16. Castine MR Meador-Woodruff JH and Dalack GW. "The role of life events in onset and recurrent episodes of schizophrenia and schizoaffective disorder". *Journal of Psychiatric Research* 32 (1998): 283-288.
17. Lovibond SH and Lovibond PF. Manual for the Depression Anxiety Stress Scales, (2nd. Ed.) (Psychology Foundation, Sydney) (1995).

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