

## **Effect of Health Style on Eight Mood States among Adults**

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### **Abstract**

*The purpose of the present investigation was to study the effect of health style on eight mood states among adults. There was one independent variable Health style, varied at three levels Good, Average and Poor. The dependent variable was eight mood states i.e, anxiety, stress, depression, regression, fatigue, guilt, extraversion and arousal. For this purpose, the sample was consisted of 180 subjects of age range 35 to 40 years of age. In this investigation two tools were used, Eight State Questionnaire (8SQ) constructed and standardized by Malaya Kapoor & Dr. Mahesh Bhargava (1990) and Health style a self-test developed by Sheridan & Radmachers (1992). Obtained data were analyzed by using, Mean, SD and one way ANOVA. The results indicate that health style significantly affect the level of anxiety, stress, fatigue and guilt while, not a significant factor for depression, regression, extraversion and arousal among adults.*

**Keywords:** Health style, Mood states and Adults.

### **Introduction**

Mood is described as the prevailing feeling state over a period of time of an individual. On the other hand, affect refers to a cross-sectional feeling tone. Mood is a generalized internal state of feeling. It is closely related to the concept of affect and emotion. Mood is feeling that end to be less intense than emotions and are often (through not always) lack a contextual stimulus. "Mood interruptions in these can be characterized by a change in their nature, range, stability, reactivity, intensity, congruence to thought etc. The major pathologic states are sadness, elation, anxiety, fatigue, guilt and anger etc" (Jain V., 2014).

Moods differ from emotions, feelings or affects in that they are less specific, less intense and less likely to be triggered by a particular stimulus or event. Moods generally have either a positive or negative valence. In other words people typically speak of being in a good mood or a bad mood. A mood swing is simply an observable change in one's mood or emotional state. Every individual has mood swings and it is a natural aspect of life. An individual may get happy, sad, disconnected and have some duration of feeling on top of the world, and after some time then the same day can feel tired and down. Small mood swings are a part of most individual's lives. A person is always experiencing some emotion at any time, since when the present emotion fades away, so another emotion will take its place and be felt by him/her.

Mood states may be positive and negative affect. One way to classify emotions is whether are positive or negative, positive emotions like joy and gratitude, express a favourable evaluation or feeling and negative emotion like anger or guilt express the opposite.

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Anxiety is a mood state characterized by marked negative affect and somatic symptoms of tension in which an individual apprehensively anticipates future danger or adversity (Barlow, 1988). Anxiety is a state of uneasiness and apprehension, as about future uncertainties and multisystem response to a perceived threat or danger. It reflects a combination of biochemical situation.

Stress is a big problem in our Society (Allen & Rapee, 2009). 75 percent of bodily illness and disease is said to be stress related. Stress is a feeling of pressure and strain. Small amounts of stress may be desired, beneficial and fruitful. Healthy positive stress helps to improve athletic performance etc. Stress an emotionally disruptive or upsetting condition occurring in response to adverse external influences and capable of affecting physical health which can be characterized by increased heart rate, irritability, a rise in blood pressure, muscular tension, and depression. According to Selye (1956) stress is the physiological response of the body to physical and psychological demands.

Depression is a common emotional disorder seen in all age groups of both genders all over the world. Depression is the state of helplessness and hopelessness with a feeling of loneliness and poor self-image. It is an affective disorder characterized by a disturbed mood or feeling. Depression affects physical, mental and emotional well-being. In the fourth edition of the Diagnostic and Statistical Manual of Mental disorders (DSM-IV), the presence of depressed mood or sadness, or loss of pleasure in life, is an important diagnostic criterion for depression. Daily fatigue, lack of energy, insomnia and hypersomnia are indicators of a depressed mood.

Regression is another one of the defence mechanisms identified by Freud. According to Freud many times when people are faced with situations that are so anxiety provoking and they can't deal with it so they protect themselves by revisions to an earlier stage of development. According to psychoanalyst regression is a defence mechanism leading to the temporary or long-term reversion of the ego to an earlier stage of development rather than handling unacceptable impulses in a more adult way.

Fatigue can be described as the lack of energy and motivation (both physical and Mental). This is different from drowsiness, a term that describes the need to sleep. Often a person complains of feeling tired and it is up to the health care professional to distinguish between fatigue and drowsiness.

Guilt is a cognitive or an emotional experience that occurs when a person realizes accurately or not that he or she has compromised his/her own standards or conduct and has violated a moral standard and bears significant responsibility for that violation. It is closely related to the concept of remorse.

Extraversion is the act, state or habit of being predominantly concerned with obtaining participation with outside the self. Extraverts tend to enjoy human interaction and to be enthusiastic, talkative, assertive and gregarious. Extraverts are energized and thrive of being around other people. They take pleasure in activities that involve large social gathering such as parties, community activities, public demonstrations and business or political groups. They also tend to work well in group.

Arousal is a physiological state of being awake or reactive to stimuli. It involves the activation of the reticular activating system in the brain stem, the autonomic nervous system and endocrine system, leading to increased heart rate and blood pressure and condition of sensory alertness, mobility and readiness to respond.

Few important studies have been reported that males having high guilt, use more drugs like marijuana, depressant, stimulant and hallucinogenic drugs in comparison to male having low guilt. These result shows that drug use is related to more likely to have unpleasant experiences resulting from guilt (Evans, 2002). Relationship between extraversion and arousal may be epiphenomenal to interactive effects of extraversion or impulsivity and arousal on performance (Matthews, 1987). Exercise indicate that 20 to 40

minutes of aerobic activity results in improvement in state anxiety and mood that persists for several hours (Raglin, 1990).

Walking and relaxation produce differential effect on self-reported mood (Saklofske G. et.al., 1992) and Supportive of antidepressant, anti-anxiety and mood enhancing affect by exercise programs (Byrne et.al., 2002). Yoga and exercise seem to indicate that both are related to good health, yoga may be better than exercises, at improving a variety of health related outcome measure (Alyson, Ross. & Thomas, 2010). Yeung, (1996) suggest that both clinical and nonclinical subjects may benefit accurately from exercise. Ghatavi, et.al., (2001) found that state expression of guilt, shame and low pride distinguish acutely depressed from all other groups and are highly influenced by severity of depression. Trait-guilt is not different acute from past depression. Data suggest that guilt may represent both enduring and fluctuating feature of depressive illness over its longitudinal cause.

## **Methodology**

### Statement of problem

Is there any effect of health style on eight mood states (anxiety, stress, depression, regression, fatigue, guilt, extraversion and arousal) among adults?

### Hypotheses

There will be no significant effect of health style on eight mood states (anxiety, stress, depression, regression, fatigue, guilt, extraversion and arousal) among adults.

### Sample

180 subjects (adults), age range 35-40 years were selected as the sample, from Baghpat District.

### Design

More than two randomized group design was applied in the present research. There was one independent variable Health style, varied at three levels Good, Average and Poor. Three groups were made on the basis of percentile of health style scores. The dependent variable was eight mood states (anxiety, stress, depression, regression, fatigue, guilt, extraversion and arousal).

### Measuring tools

Following tools were used for the measurement of variables under this study. First, Eight State Questionnaire (8SQ) constructed and standardized by Shri Malaya Kapoor & Dr. Mahesh Bhargave (1990) consisted of 96 items was used. This scale has high reliability and validity. Second, Health Style a self-test developed by Sheridan & Radmachers (1992) consisted of 23 items. page no. 194-195. This test was publish by national health information clearing house P.O. Box. – 7133 DC 2013.

### Procedure for data collection

All the selected subjects were personally contacted and these questionnaires were administered. Verbal consent is taken from the participants and they were given a brief description about the purpose of data collection and were assured that the data collected from them will only be used for research purpose and will be kept confidential. Each item was scored with the help of scoring key.

### Analysis of Data

Mean, SD and one-way analysis of variance has been applied to find out the significance of the main effect. For multi-group comparison 'D' value has been calculated.

## Result and Discussion

The present research paper was an attempt to study the effect of health style on eight mood states among adults. Findings of this study are summarized in summary of analysis of variance in the following tables:

Table 1

Summary of Analysis of Variance for Anxiety

Sources of Variation	Sum of Square	Df	Mean Square	F- Value
Among the means of conditions	290.633	2	145.32	7.73**
Within Conditions Total	3326.92	177	18.08	

\*\*Significant at .01 level.

Table 2

Summary of Analysis of Variance for Stress

Sources of Variation	Sum of Square	Df	Mean Square	F- Value
Among the means of conditions	137.88	2	68.94	4.13**
Within Conditions Total	2951.514	177	16.68	

\*\*Significant at .01 level.

Table 3

Summary of Analysis of Variance for Depression

Sources of Variation	Sum of Square	Df	Mean Square	F- Value
Among the means of conditions	17.344	2	8.672	0.5304
Within Conditions Total	2894.05	177	16.3506	

Table 4

Summary of Analysis of Variance for Regression

Sources of Variation	Sum of Square	Df	Mean Square	F- Value
Among the means of conditions	50.0333	2	25.02	1.59
Within Conditions Total	2787.15	177	15.75	

Table 5

Summary of Analysis of Variance for Fatigue

Sources of Variation	Sum of Square	Df	Mean Square	F- Value
Among the means of conditions	295.35	2	147.675	5.91**
Within Conditions Total	4419.2331	177	24.97	

\*\*Significant at .01 level.

Table 6

## Summary of Analysis of Variance for Guilt

Sources of Variation	Sum of Square	Df	Mean Square	F- Value
Among the means of conditions	195.0733	2	97.54	4.62**
Within Conditions Total	3739.37	177	21.13	

\*\*Significant at .01 level.

Table 7

## Summary of Analysis of Variance for Extraversion

Sources of Variation	Sum of Square	Df	Mean Square	F- Value
Among the means of conditions	49.54	2	24.77	2.14
Within Conditions Total	2051.7	177	11.592	

Table 8

## Summary of Analysis of Variance for Arousal

Sources of Variation	Sum of Square	Df	Mean Square	F- Value
Among the means of conditions	36.34	2	18.17	1.514
Within Conditions Total	2128.9	177	12.03	

Table 9

## Showing Mean Score S.D. of eight mood states on three levels of health style

I.V. Health Style			Good Health Style		Average Health Style		Poor Health Style	
S.No.	D.V. Mood States	Mean Score	S.D.	Mean Score	S.D.	Mean Score	S.D.	
1.	Anxiety	13.933	4.5	16.8	4.464	16.42	3.92	
2.	Stress	15.97	4.3508	17.22	3.88	18.1	3.88	
3.	Depression	16.18	3.894	16.93	13.6	16.67	4.19	
4.	Regression	16.05	4.63	17.33	3.4	16.82	3.69	
5.	Fatigue	14.1	5.425	16.85	4.362	16.78	5.005	
6.	Guilt	14.08	4.90	16.3	4.5214	16.28	4.253	
7.	Extraversion	18.183	12.97	16.93	3.19	17.82	3.3	
8.	Arousal	19.78	3.3	18.68	3.702	19.27	3.33	

Table 10

## Showing multi-group comparisons on the basis of mean

S.No.	Group	A <sub>1</sub> A <sub>2</sub>	A <sub>1</sub> A <sub>3</sub>	A <sub>2</sub> A <sub>3</sub>	D.05	D.01
1.	Anxiety	2.867**	2.484*	0.3833	1.9	2.5012
2.	Stress	1.25	2.13*	0.88	1.8	2.3504
3.	Depression	0.75	0.49	0.26	3.8	4.953

4.	Regression	1.28	0.77	0.51	1.755	2.4
5.	Fatigue	2.75*	2.68*	0.07	2.196	2.9
6.	Guilt	2.22*	2.2*	0.02	2.2	2.7501
7.	Extraversion	1.253	0.363	0.89	3.5066	4.63
8.	Arousal	1.1	0.51	0.59	1.58	2.08

\* Significant at .05 level.

\*\*Significant at .01 level.

Summary of ANOVA (Table 1) indicates that the obtained 'F' value for health style related to Anxiety is 7.73,  $P < .01$ . It means 'F' ratio of factor 'A' (Health Style) is significant at .01 level of confidence. It shows that health style significantly affect the level of anxiety in adults. Table No. 9 indicate that subjects who have good health style show the low level of anxiety in comparison to other two groups. A close look of Table No.10 specify that out of three comparisons, two comparisons are significantly differ,  $A_1 A_2$  at .01 level and  $A_1 A_3$  at 0.5 level of confidence. It shows that mean difference between good & average health style and good & poor health style is significant while difference between average & poor health style is not significant at any level of confidence in context of anxiety.

Stress score are summarized in Table No.2. 'F' value for Health style related to Stress is 4.13,  $P < .01$ . It means 'F' ratio for health style is significant at .01 level of confidence. It shows that health style significantly affect the level of stress in adults. Table 9 indicates that subjects who have good health style show the low level of stress in comparison to other two groups. A close look of Table No.10, specify that out of three comparisons, one comparisons between  $A_1 A_3$  is significant at .05 level. It shows that the difference between good & poor health style is significant, while difference between good & average health style & average poor health style is not significant at any level of confidence in context of stress.

Depression score are summarized in Table No. 3. 'F' value for health style related to depression is 0.53,  $P > .01$ . It means 'F' ratio for health style is not significant at any level of confidence. It shows that health style does not affect the level of depression in adults. Table No.9 presents the mean difference among three groups and found that very minor difference is present among three groups.

Regression score are summarized in Table No. 4. 'F' value for health style related to regression is 1.59,  $P < .05$ . It means 'F' ratio for health style is not significant at any level of confidence. It shows that health style does not significantly affect the level of regression in adults. Table No. 9 presents the mean difference among three groups. It has been found that very minor difference is present among three groups.

Fatigue score are summarized in Table No.5. 'F' value of health style related to fatigue is 5.91,  $P < .01$ . It means 'F' ratio for health style is significant at .01 level of confidence. It shows that health style significantly affect the level of fatigue in adults. Table No. 9 indicates that subject who have good health style show the low level of fatigue in comparison to other two groups. A close look of table No.10, specify that out of three, comparisons, two comparisons between  $A_1 A_2$ ,  $A_1 A_3$  is significant at .05 level. It shows that the difference between good & average health style and good & poor health style are significantly differ at .05 level of confidence in context of fatigue.

Guilt score are summarized in Table No.6. 'F' value for health style related to guilt is 4.62,  $P < .05$ . It means 'F' ratio for health style is significant at .05 level of confidence. It shows that health style significantly affect the level of guilt in adults. Table No. 9 indicates that subject who have poor health style show the high level of guilt in comparison to other two groups. A close look of Table 10 specific that out of three comparisons, two comparisons between  $A_1 A_2$ ,  $A_1 A_3$  is significant at .05 level. It shows that the difference between good

& average health style and good & poor health style are significantly differ at .05 level of confidence in context of guilt.

Extraversion scores are summarized in Table No. 7. 'F' value for health style related to extraversion is 2.14,  $P > .05$ . It means 'F' ratio for health style is not significant at any level of confidence. It shows that health style does not affect the level of extraversion in adults significantly. Table No.9 presents the mean difference among three groups and found that very minor difference is there among three groups.

Arousal score are summarized in Table No.8 'F' value for health style related to arousal is 1.51,  $P > .05$ . It shows that 'F' ratio for health style is not significant at any level of confidence. It shows that health style does not affect the level of arousal in adults. Table No. 9 presents the mean difference among three groups. There are very minor difference is present among three groups.

Life style or health style is one of the most significant factor for affecting bio-psycho-social health. Lalonde (1975) defines life style as the health-related decisions and behaviours that are, to an extent, controlled by individual. Unhealthy life style may be the cause of many type of disease like hypertension, accidents, stroke, cirrhosis, and osteoporosis. Researchers have also shown that adults with spiritual practices have positive impact on physical health, coping with stress and mental health (Koenig, 2012). Assessment of anxiety levels after a brief life style modification, education program based on the principle of yoga have shown reduction in anxiety levels (Sharma, Manjunath & Bijlani, 2008 and Gupta, Khara, Vempati, Sharma & Bijlani, 2006). Yogic and respiratory practice has a special strengthening effect on mental and physical experience and increases the high positive mood (Bud, 1993).

Breanna et.al. (2013) studied the self-forgiveness shame and guilt in recovery from drug and alcohol problem often experience feelings of shame and guilt while have been associated with poorer recovery. Self-forgiveness has the potential to reduce these negative experience. These findings emphasize the importance of targeting acceptance when trying to reduce the effects of shame and guilt on self-forgiveness. A spiritually based intervention programme decreased anxiety and depression (Rajagopal, Mackenzie, Bailey & Lavizzo-Muourey, 2002). Exercise is associated with improvement in mental health including mood state and self esteem. Exercise indicate that 20 to 40 minutes of aerobic activity results in improvement in state anxiety and mood that persists for several hours (Raglin, J.S., (1990). Much as with headaches and hypertension, relaxation has generally positive effects on acute and chronic pain, although the results are relatively modest (Taylor, 1991). Paluska, et.al., (2000) found that physical activity may play an important role in management of mild to moderate mental health disease, especially depression and anxiety.

All mood states are correlated with each other like anxiety, stress, feeling of guilt, fatigue etc. On the basis of above findings it may be said that exercise, smoking drug addiction, eating habits are the part of health style and significantly affect the physical and psychological health both. It may be the possible cause of these findings that the level of anxiety stress, fatigue and guilt decreases with the good health style and increased with the poor health style. Previous findings show that physical exercise like Yoga, aerobic improves the stamina and help to reduce the level of anxiety and depression, findings of this investigation also present these results.

## **Conclusion**

The result can be summarised in the following manner-

- 1) Effect of health style on the level of anxiety has been found significant at .01 level of confidence.

- 2) Effect of health style on the level of stress has been found significant at .01 level of confidence.
- 3) Effect of health style on the level of depression has not been found significant at any level of confidence.
- 4) Health style does not affect the level of regression at any level of confidence among adults.
- 5) Health style also affect the level of fatigue. It has been found to be significant at .01 level of confidence.
- 6) Effect of health style on the level of guilt has been found to be significant at .01 level of confidence.
- 7) Effect of health style on the level of extraversion has not been found significant at any level of confidence.
- 8) Arousal is also not significantly affected by the level of health style among adults.

### **Bibliography**

- Allen, J. L., & Rapee, R. M. (2009). Life events for anxious children and controls due to comorbid disorders? *Journal of Anxiety Disorders*. 23(4), 511-518. Doi: 10.1016/j.janxdis.2008.10.005
- Alyson, R. & Thomas, S. (2010). The health benefits of yoga and exercise: A review of comparison studies. *The journal of alternative and complementary medicine*. 16 (1). <http://doi.org/10.1089/acm.2009.0044>
- Barlow, D. H. (1988). *Anxiety and its disorders the nature and treatment of anxiety and panic* Barlow. D. H. *Anxiety and Its Disorders: The Nature and Treatment of Anxiety and Panic*. Xxi+698p. Guilford Press: New York, New York, USA; London, England, Uk. Illus (pp. XXI+698P).
- Breanna J., McGaffin, Geoffrey C. B., Lyons, & Frank P. (2013). Self-Forgiveness, Shame, and Guilt in Recovery from Drug and Alcohol Problems, *Substance Abuse*. 34(4), 396-404.DOI: 10.1080/08897077.2013.781564
- Bud (1993). Positive and negative mood (condition of mood, emotional stage) and mental and physical energy. *Bartleby research*. <https://www.bartleby.com/essay/Positive-Effects-Of-Pranayama-FJY8KAT3G>
- Byrne, D.G., & Byne A. (2002). The effect of exercise on depression, anxiety and other mood states: A review. *Journal of psychosomatic research*. 37 (6), 565-574.
- Evans (2002). Aspects of Guilt and Self-Reported Substance Use in Adolescence. *Journal of Drug Education*. 32(4), 343-62. DOI:10.2190/VN3D-5M0A-47BN-3Y3T
- Ghatavi, K.,Nicolson, R., MacDonald, C., Osher, S. & Levitt A. (2001). Defining guilt in depression: a comparison of subjects with major depression, chronic medical illness and healthy controls. 68(2-3), 307-15. doi: 10.1016/s0165-0327(01)00335-4.
- Gupta, N., Shveta, K., Vempati, R., Sharma, R., Vijlani, R. L. (2006). Effect of yoga based lifestyle intervention on state and trait anxiety. *Indian Journal of Physiologic Pharmacologic*. 50, 41-7.
- Jain, V. (2014). Effect of yogic intervention pranayama on mood states anxiety stress depression. URI: <http://hdl.handle.net/1063/26452>
- Koenig, H. G. (2012). *Religion, Spirituality, and Health: The Research and Clinical Implications*. National library of medicine. doi: 10.5402/2012/278730, PMID: PMC3671693
- Lalonde, B. J. (1975). Management of Purchasing in an Uncertain Economy. *Journal of purchasing and materials management*. 11 (4), 3-8. <https://doi.org/10.1111/j.1745-493X.1975.tb00339.x>
- Mathews, G., (1987). Personality and multidimensional arousal : A study of two dimensions of extraversion. *Personality and individual differences*, 8(1) 9-16.
- Paluska, S.A.,(2000). Physical activity and mental health : Current concepts. *Sports med.*, 29 (3), 167-80.



- Raglin, J.S., (1990). Exercise and mental health beneficial and detrimental effects. *Sports Med.*, 9(6), 323-329.
- Rajagopal, D., Mackenzie, E., Bailey, C., & Lavizzo-Muourey, R (2002). The Effectiveness of a Spiritually-Based Intervention to Alleviate Subsyndromal Anxiety and Minor Depression Among Older Adults. *Journal of Religion and Health.* 41(2),153-166 . DOI:10.1023/A:1015854226937
- Saklofske, D. H., Blomme, G. C., & Kelly, I. W. (1992). The effects of exercise and relaxation on energetic and tense arousal. *Personality and Individual Differences*, 13(5), 623–625. [https://doi.org/10.1016/0191-8869\(92\)90204-3](https://doi.org/10.1016/0191-8869(92)90204-3)
- Selye, H.(1956). *The Stress of Life*. New York: McGraw-Hill.
- Sharma, R., Gupta, N., Bijlani, R. L. (2008). Effect of yoga based lifestyle intervention on subjective well-being. *Indian Journal of Physiologic Pharmacologic.* 52,123–31.
- Taylor (1991). Positive effects of pranayama. Bartleby research. <https://www.bartleby.com/essay/Positive-Effects-Of-Pranayama-FJY8KAT3G>
- Yeung, R.R., (1996). The acute effects of exercise on mood state. *Journal of Psychosomatic Research.* 46(2), 123-141.