



EFFECT OF AEROBIC EXERCISE ON PSYCHOLOGICAL WELL BEING OF YOUNG ADULTS

Physiology

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ABSTRACT

Aim of this study is evaluation the effect of aerobic exercise on psychological well beings of young adults. Psychological well being of the subjects were assessed by 22 questionnaires developed by MAPI Research institute, 2004. Assessment of the subject is done by scoring before exercise and after the exercise 6 weeks duration in 46 young adults. Mean \pm standard value subjects before the jogging is 77.65 ± 11.65 and after the jogging is 84.91 ± 9.87 . P value is 0.000 which is statistically significant. Aerobic exercise of 6 weeks duration has positive effect on psychological well being of the subjects.

KEYWORDS

Aerobic exercise, jogging, psychological well beings.

INTRODUCTION:

In this era of competitive world, profession with sedentary life and excess work pressure may lead to many mental illness and chronic illness. Inclusion of aerobic exercise in morning as lifestyle modification could be a cost-effective way to improve health and quality of life. Aerobic Exercise may be good intervention for prevention of many mental and physical illnesses.

Exercise is prescribe as a medicine in the treatment of 26 different diseases including psychiatric diseases like depression, anxiety, stress etc.¹ Exercise and physical activity have been shown to prevent or delay the onset of several mental disorders and to have therapeutic effects in different groups of psychiatric disorders.²

Aerobic exercises like walking, jogging, running, swimming, cycling, gardening, and dancing, have been proved to reduce anxiety and depression. Exercise improves mental health by reducing anxiety, depression, and negative mood by improving self-esteem and cognitive function.² Thirty minutes of exercise of moderate intensity, such as brisk walking for 3 days a week, is sufficient for these health benefits.³

Study of Guskowska showed that there is positive effect of exercise on emotional state of normal and diseased persons. Aerobic exercise like jogging for 15-30 minutes at the frequency of 3 times in a week is responsible for improvement in depression and anxiety.⁴

Study of CR Richardson suggested that exercise is well accepted by people with serious mental illness and is often considered one of the most valued components of treatment.⁵

Exercise is beneficial for mental health; it reduces anxiety, depression, and negative mood, and improves self-esteem and cognitive functioning was seen in the study of P Callaghan.⁶

Study of Mc can et al. showed that exercise is effective for reducing depression in addition to the treatment.⁷

Many studies showed that benefits of exercise. Exercise has effect on various system of body like cardiovascular, respiratory, endocrine, autonomic nervous system. Exercise has role in prevention and treatment of psychiatric diseases. Relation between the effect of exercise and psychological well beings is less studied scientifically in central India context. So, purpose of this study is see the effect of exercise on psychological well being of young healthy adults in central India context.

MATERIAL AND METHODS : The 22 item questionnaires developed by MAPI Research Institute (2004). It includes six dimensions Anxiety, Depressed Mood, Positive Well-being, Self-

Control, General Health and Vitality. The 22 items are frequently used to generate an overall Index or total score for general well-being. The questionnaire takes 10 minutes or less to administer and is generally well-accepted. The scoring for each item was 0-5, giving a possible score range of 0-110. This is useful for medical conditions, and to quantify impact on the quality of life of individuals. It may explain the effect of diseases on well being of subjects.

Table – 1: Number of questions in six dimension and their score

Dimension	Item number	Item cluster	Range
Anxiety	5	5,8,17,19,22	0-25
Depressed mood	3	3,7,11	0-15
Positive well being	4	1,9,15,20	0-20
Self control	3	4,14,18	0-15
General health	3	2,10,13	0-15
Vitality	4	6,12,16,21	0-20
Global score	22		0-110

OBSERVATION: In the present study, psychological well being of the subject was studied by 22 questionnaire of general well being. Well being of subject is measured by Score obtained in the questionnaire scale before starting the aerobic exercise and then, after the 6 weeks of aerobic exercise.

Table – 2: Psychological well being score of study subjects

PGWB (Score)	Pre jogging	Post jogging
51-60	5	1
61-70	6	4
71-80	14	7
81-90	14	21
91-100	7	12
101-110	0	1

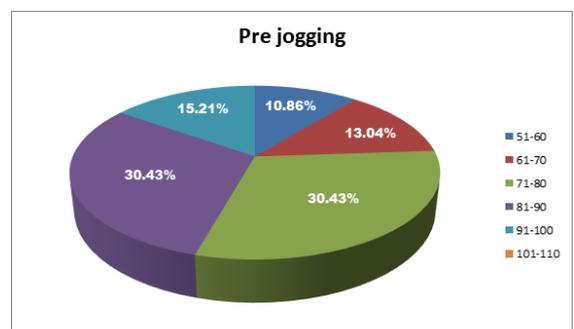


Fig. 1

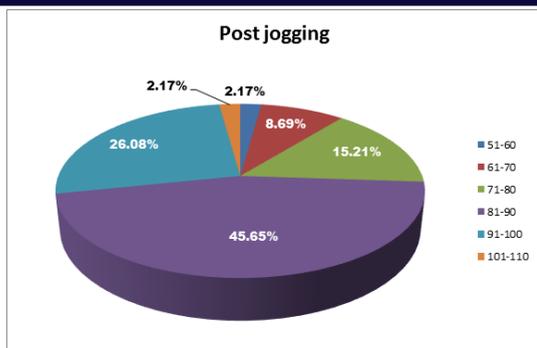


Fig. 2

Above table depicts change in the number of subjects from the lower range to higher range. This is due to improvement of score after jogging of 6 weeks. Mean score value is raised from the 77.65 ± 11.65 to 84.91 ± 9.87 . The increased in score was statistically significant ($p=0.00$)

DISCUSSION:

This instrument is used for evaluating psychological well being of life. Improvements in psychological well being is reflected by increased in the score of subjects. Thus changes in well-being achieved over period of 6 weeks. It shows that there is influence of aerobic exercise on Anxiety, Depressed Mood, Positive Well-being, Self-Control, General Health and Vitality.

The changes in anxiety, depression and mood states after exercise are explained most frequently by the endorphin and monoamine hypotheses. Exercise may also increase body temperature, blood circulation in the brain and impact on hypothalamic-pituitary-adrenal axis and physiological reactivity to stress. The possible psychological mechanisms include improvement of self-efficacy, distraction and cognitive dissonance⁴

Study of Broman-Fulks et al in 2004 concluded that aerobic exercise has effect on the anxiety.⁸ James study show that aerobic exercise is effective for improving the symptoms of major depression in patients⁹ Martinsen found that regular exercise reduced depression.¹⁰

CONCLUSION: Duration of 6 weeks aerobic exercise has positive effect on the psychological well being of the subject. So, aerobic exercise might be prescribed for treatment of various psychiatric diseases.

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