



# PHYSICAL ACTIVITIES FOR GOOD MENTAL STRENGTH

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## **Abstract**

Research has shown that both single bouts of exercise and regular exercise are beneficial for mood and self-esteem in the general population as well as mental health groups. There is, however, a dearth of studies on effects of exercise in the mental health community. This research looked into the effects of a single exercise such as jogging, on people' emotions and self-worth who have a more comprehensive clinical mental health diagnosis. Design: A 45-minute session of quantitative question and answer in the forms of survey that included 12 questionnaires. These questionnaires were asked to them pre and post workout sessions arranged at the hospital setting. A single session of jogging had largely impacted the participants. 41 patients with a clinical mental health diagnosis who were admitted to a mental health facility filled out the questionnaire. Data were gathered about mental health diagnoses, and levels of physical exercise. In summary, the noteworthy results underscore the significance of promoting physical activity among this demographic and the possible positive impact that even one exercise session might have on mood and self-worth in individuals dealing with mental health issues.

Keywords: Clinical; Exercise; Health; Mental Health; Mood; Self-Esteem

## **1. Introduction**

Government policy is currently prioritising mental health, and researchers are becoming more and more interested in this field. Several researches have shown the facts that exercising regularly allows improving mental health [1]. Doing a single exercise allows reducing depressive symptoms to be reduced.

These exercises include jogging, swimming, cycling, walking, gardening and dancing. Exercise increases in blood flow to the brain and its impact on the hypothalamic-pituitary-adrenal (HPA) axis, which regulates the body's response to stress, are thought to be the causes of these mood changes. The communication between the HPA

axis and various brain regions, such as the limbic system, which regulates motivation and mood, the amygdala, which causes fear in response to stress, and the hippocampus, which is crucial for memory formation and mood and motivation, is likely what mediates this physiological influence [10].

### **1.1 Issues faced by the people who do not perform any physical activity**

**Anxiety:** There was a significant negative correlation between sedentary behaviour and physical exercise. Sedentary behaviour was substantially linked to greater prevalence rates of anxiety, depression, and suicidal thoughts, according to descriptive analysis.

#### ***Depression:***

Researchers discovered that mood swings and depression may be caused by sleep issues, low energy, and physical inactivity. Serotonin and norepinephrine are the neurotransmitters that affect both pain and mood, suggesting that there is more to physical pain and sadness than just cause and effect [3]. Depression and pain are associated with these transmitters' deregulation.

#### ***Panic Disorder:***

A lack of exercise and physical activity can introduce a panic disorder which is harmful for an individual's mental health. A

general population across the younger adults in various parts of the world have confirmed that they often face panic disorder [4]. Upon researching deeply, researchers came across the facts that this panic disorder is induced by the lack of self-activity and having no exercise included in daily routine.

#### ***Obesity and cardiovascular disease:***

With people leading a sedentary lifestyle, obesity is growing at a huge pace. Obesity not only impacts the self-esteem and confidence it also destroys the mental health of a person significantly. Usually, a person starts to confine himself once they face body shaming due to being overweight and do not socialise [9]. The lack of physical activity also gives people a lot of cardiovascular disease and mortality rates have increased over the last few years [3].

### **1.2 Positive impacts of physical activity on mental health**

The positive impacts of exercise on mental health have also been attributed to self-efficacy, social engagement, and diversion, according to other theories [5]. Although formal group programmes can be beneficial for people with severe mental illness, most patients may benefit more from lifestyle modifications that emphasise building up and

increasing moderate-intensity movement throughout the day. It's interesting to note that adherence to physical exercise programmes seems to be similar in the general community vs those with mental illnesses.

Additionally, it has been discovered that exercise helps with symptoms including social disengagement and low self-esteem [7]. Patients with schizophrenia should exercise more because they are more likely to become obese already and because taking antipsychotics, particularly atypical antipsychotics, increases the risk of weight gain [11].

Participants in a previous three-month physical conditioning programme with patients diagnosed with schizophrenia reported improvements in their ability to control their weight, as well as improvements in their fitness, exercise tolerance, blood pressure, perceived energy, and strength of their upper body and hands grip. For these health benefits, thirty minutes of moderate-intensity exercise, like three days a week of brisk walking, is sufficient [6]. Furthermore, it's not necessary for these 30 minutes to run nonstop; three 10-minute walks are thought to be just as beneficial as one 30-minute stroll. Even pregnant women can look for exercise that can reduce their stress.

An overall view of health benefits are gained by regularly engaging in physical activities. In summary the results of exercise are as follows:

- Increased stamina
- Reduction of stress
- An upliftment in mood and improved sleep
- Enhanced vitality and endurance [8]
- Less fatigue, which can improve mental clarity
- Losing weight
- Decreased cholesterol and enhanced heart health [13]
- Managing the non-insulin dependent diabetes

## 2. Literature Review

In today's era, when obesity and the "metabolic syndrome" are on the rise, changing one's lifestyle may be a more affordable means of enhancing one's well-being. Changes in lifestyle might be particularly significant for those suffering from severe mental illness. Many of these people have an increased risk of developing chronic conditions like diabetes, hyperlipidemia, and cardiovascular disease, which are linked to sedentary behaviour and pharmaceutical side effects. Exercise is a vital component of changing one's lifestyle. Both patients and mental health experts do not fully recognise or understand the value of exercise [11]. Research

indicates that physical activity can be a frequently disregarded treatment option for mental health issues. Regular exercisers have reduced incidence of mental disease and improved mental and emotional wellbeing [1]. People with mental illnesses should get regular exercise because it not only improves mood, focus, and alertness but also cardiovascular and general physical health [12]. However, benefits from exercise don't have to come from rigorous, regimented, or time-consuming exercise it can be small efforts such as spot jogging or 30 minutes fast walk as well. While doctors advise adults to be active most days and aim for 2.5–5 hours of moderate physical activity or 1.25–2.5 hours of intense physical activity per week, any exercise is better than none at all [13]. Many individuals are unaware that allowing oneself to sit and think can frequently lead to worry and anxiety attacks since the mind will eventually turn to unpleasant thoughts [2]. Being active offers the mind plenty of diversions, and diversions provide a person a mental vacation that can lessen anxiety symptoms in the future. In this study, the focus will be on the mentioned mental health issues specifically and their cure with an intervention of exercise.

### 3. Method

#### 3.1 Participants

A total of 41 participants both male and female, are engaged in this current research. All of them were inpatients of the mental hospital setting. They were from different states of India and consented to answer survey questionnaires. All the participants were of above the age 18 and aware of the fact they were sharing. The people were from different backgrounds with zero physical activity. The participants completed questionnaires based on pre and post workout mental wellbeing were asked. These questions had different dimensions as tension, depression, manager, vigour, fatigue and confusion. They will be giving answers in yes or no format.

#### 3.2 Procedure

There were questionnaire asked to the candidates as follows:

1. Have you had trouble keeping your mind on things you were reading, or watching on television when you do not engage in any physical activity?
2. Have you been less self-confident than usual when you do not perform any physical activity?
3. Have you been more anxious, nervous or worried than usual when you do not engage in any physical activity?
4. Have you been more easily annoyed or more impatient than

usual when you do not do any physical activity?

5. Do you always feel fatigued and down when you do not perform any physical activity?

6. Have you been sleeping more when you do not engage in any physical activity?

7. Have you had less trouble keeping your mind on things you were reading, or watching on television after engaging in physical activity?

8. Have you been less self-confident than usual after performing a physical activity?

9. Have you been less anxious, nervous or worried than usual after engaging in a physical activity?

10. Have you been less annoyed or less impatient than usual after physical activity?

11. Do you feel less fatigued after a physical activity session?

12. Have you been sleeping optimally after engaging in physical activity?

All the questionnaires designed here have a relevance to mental health issues. Participants have given their answers in yes or no and all answers were recorded in an excel sheet to keep track.

#### 4. Results

The result included information on how the mental health is being impacted by no-physical activity among participants and how much

depressed they are currently in. The honest answers of the survey question allowed researchers to know that approximately 30 people feel troubled while watching tv or reading if there are no physical activities done by them in a day. 32 people felt that they were more anxious or feeling conscious and less confident when they were not having any activity. 23 people said they are more impatient than usual as they were sitting idle all day and not doing any exercise or activities. A hefty number of people around 40 have accepted the fact that they feel even more fatigued if they do not participate in physical activity.

31 people agreed that they faced sleep issues as they did not participate in any physical activity. An approximate of 35 people agreed to the fact that they were feeling good about themselves and confident in their own body after exercise. Moreover, 29 people said that after coming back from an exercise session they felt more refreshed. 38 people have agreed to the fact that they want to go for more exercise sessions to reduce anxiety. Approx 40 people had confirmed that after a workout session they felt less fatigued and less impatient than before. 25 of the samples confirmed the fact that they had optimal sleeping after doing exercises.

## 5. Discussion

Overall the questionnaires allowed the researchers to understand whether they felt good when they were having a physical activity vs the time they were not having any activity included. It is observed that there was a good amount of reduction in stress and anxiety seen after the people were progressing with the exercise. Data collection from participants with a variety of mental health diagnoses was the goal of the current investigation. Over time, a noteworthy distinction was observed when individuals were handled as one cohesive group. Subsequent examination of mental health diagnoses revealed no discernible shift in psychological traits over time between diagnoses. This is expected given the small sample sizes (when broken down by diagnosis), and more research is necessary. This pilot study employed a bigger sample size than earlier studies, but it also included participants with a wider variety of diagnoses. Therefore, it would be advantageous to gather a bigger sample size if more study were to be done in order to thoroughly examine the impact of a single exercise session on a variety of clinical diagnoses.

## 6. Limitation

Due to the self-reported nature of the intensity measure, there is a

chance of miss representation. Since those with dual diagnoses were not included and other comorbidities were not disclosed, care should be exercised when extrapolating these results. The sample size was limited only to the core people of India and hence variance of situation was not present.

## 7. Conclusion

Overall, in spite of many drawbacks, this is still the first study to examine how a single exercise session affects a group of people who have been diagnosed with a clinical mental illness precisely anxiety and depression. The optimistic findings of this study lend support to the need for more in-depth investigation on the subject. The potential ramifications of these findings are enormous if larger samples and a greater spectrum of mental health disorders can be used to replicate such results.

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