

The Effect of Indoor-Outdoor Physical Exercise on an Individual's Psychological Well-being

BY BENDU JACKSON

Introduction

- ▶ Exercise has been proven to have numerous amount of physiological benefits.
- ▶ Exercising on a regular basis has been proven to lower the risks of stroke, heart attack, some cancers, osteoporosis, and improve cardiovascular and cardiorespiratory functioning.
- ▶ However, there is still need for knowledge of the effects of physical exercise on an individual's well-being.

Statement of the Problem

- ▶ Psychological well-being is the overall mental health of an individual's life.
- ▶ This includes an individual's stress level, mental illness, and self-image.
- ▶ According to the National Institute of Mental Health, there are 43.8 million adults aged 18 or older living with some sort of mental illness in the United States (National Institute of Mental Health, 2015).
- ▶ *"In 2011, the U.S. Centers for Disease Control and Prevention (CDC) reported that antidepressant use in the United States has increased nearly 400% in the last two decades, making antidepressants the most frequently used class of medications by Americans ages 18-44 years. By 2008, 23 percent of women ages 40–59 years were taking antidepressants"* (Levine, B 2013).
- ▶ Suicide rates have also increased significantly in the last ten years; about 28 percent (Levine, B 2013).

Purpose

- ▶ The purpose of this research is to determine if introducing exercise into an individual's day to day life will prove to be effective and improve the person's overall psychological well-being.

Major Research Question and Sub Questions

- ▶ Does exercise improve an individual's overall psychological well-being?
 - ▶ What impact will exercising have on an individual's self-esteem?
 - ▶ Will physical exercise improve an individual's stress levels?
 - ▶ How does physical exercise improve symptoms of depression and anxiety?
 - ▶ Does physical exercise elevate mood levels?

Hypothesis

- ▶ Indoor-outdoor physical exercise will have a positive effect on an individual's psychological well-being.

Theoretical Framework

- ▶ 30 minutes of physical exercise a day has been proven to decrease depression symptoms.
- ▶ Researchers have found 5 minutes of short bursts of aerobic exercise stimulates anti-anxiety effects.
- ▶ Exercise has shown to be a preventative intervention as opposed to a corrective intervention.
- ▶ Exercise may have both a positive and negative on an individual's self-esteem.
- ▶ Aerobic and anaerobic exercise has been known to improve mood levels of individuals.
 - ▶ However, there are many factors that contribute to the fluctuation of an individual's mood level.

Significance of the Study

- ▶ By conducting this study, researchers can better understand the relationship between exercise and psychological well-being.

Definition of Terms

- ▶ **Psychological Well-being-** is the overall mental health of an individual's life, which includes an individual's stress level, psychological health, mood, and self-esteem.
- ▶ **Exercise-** planned, structured, and repetitive physical activity that is performed in order to become stronger, healthier, and improve overall well-being (World Health Organization, 2015).
- ▶ **Anxiety-** is a mental disorder characterized by intense, excessive, and persistent worrying and fear about the future, social situations, school, work, and family and friends.
- ▶ **Depression-** is a mood disorder characterized by overwhelming sadness and loss of interest (Mayo Clinic, 2015).
- ▶ **Mood-** a feeling or state of mind.
- ▶ **Stress-** physical or emotional response to internal or external stimuli.

Assumption

- ▶ Psychological well-being is an umbrella term that includes an individual's stress level, mental illness, and self-image.

Limitations

- ▶ Some participants may provide false information.
- ▶ Some participants may not exercise.
- ▶ The sample may inadequately represent the population.
- ▶ External factors such as school, work, weather, and family obligations may interfere with a participant's ability to exercise.

Delimitations

- ▶ Research study is based on individuals on Facebook.
- ▶ Participants in this study are eighteen years of age or older.
- ▶ Research study tests the effect of indoor-outdoor physical exercise on an individual's psychological well-being.

Methodology

- ▶ Phenomenological

- ▶ “A study that attempts to understand people’s perceptions, perspectives, and understandings of a particular situation” (p. 145).

Sampling Design

- ▶ Purposeful sampling
- ▶ 10 individual's participated in this study
- ▶ They were asked a series of field-tested questions to determine if they were good candidates for this experiment.
- ▶ Next, participants were given the task of exercising for a period of three weeks, to see what effects exercising yielded to the improvement of their overall psychological well-being.

Data Collection

- ▶ Post an announcement on Facebook for volunteers for the research study.
- ▶ Supply informed consent papers for volunteers to sign.
- ▶ Go over any questions the volunteers have about the research study.
- ▶ Ask volunteers what they are currently doing to manage their psychological well-being and the history of when they or others notices their psychological well-being began to deteriorate.
- ▶ Ask volunteers to implement indoor or outdoor physical exercise into their daily lives for three weeks.
- ▶ At the beginning of every week contact volunteers to go over the effect exercise is having on their mood levels, stress levels, self-esteem, depression and anxiety symptoms.
- ▶ Make sure to remind volunteers they are allowed to stop at any time during the study if the questions are triggering unpleasant memories and thank them for participating in the study.

Data Analysis

- ▶ In the preliminary stage, volunteers were asked to rate their mood, stress, and self-esteem levels, their depression and anxiety symptoms, and the history of their psychological well-being.
- ▶ The researchers used Thematic analysis for the data analysis.
 - ▶ Allows the researcher to examine patterns in the research.
- ▶ At the end of each week, for three weeks, the researcher will see if there are any patterns in the research and to see if the individuals participating in the study are noticing any effects of exercise on their psychological well-being.
- ▶ The researcher will also go over the voice recorder after each session to look for themes coming across in the research, from the participants.

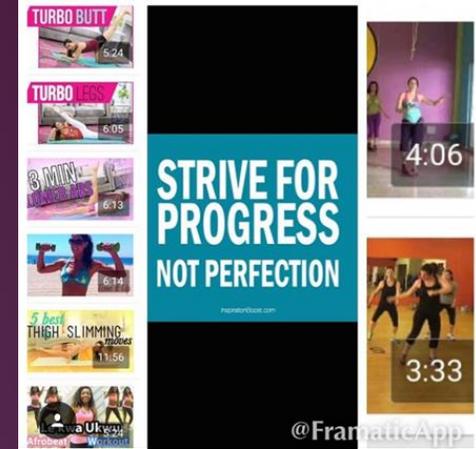
Research Findings

Self-Esteem

- ▶ Exercise has both a positive and negative effect on individual's suffering from low self-esteem.
- ▶ A person may use exercise in a way that is damaging to the physiology.
- ▶ Some individuals may develop eating and other mental disorders due to excessive exercising.

Theme

- ▶ During discussion six out of the ten participants noticed changes in their self-esteem.
- ▶ They felt better about themselves.
- ▶ The six participants noticed they were more assertive in their daily lives, they felt more confident when going out, and when self-doubt crept into their minds, they did not let it ruin their whole day.
- ▶ None of the participants reported exercising excessively.



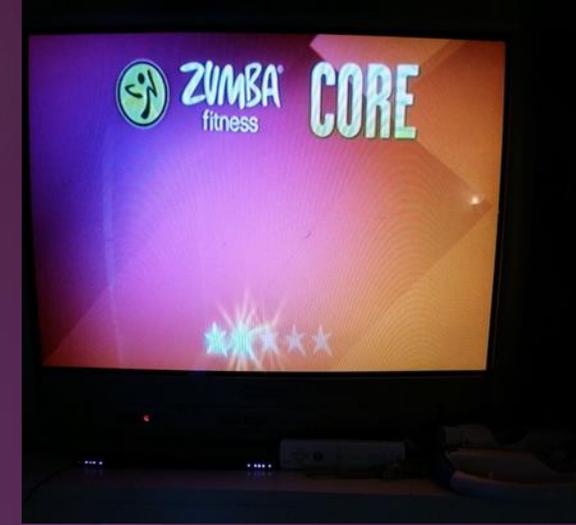
Research Findings

Stress

- ▶ Aerobic exercise is known to have a positive correlation on stress levels.
- ▶ Studies show exercise as being a manager of stress instead of a corrective intervention.

Theme

- ▶ All ten of the participants reported a significant decrease in their stress levels.
- ▶ Eight of the participants said they went to bed at a reasonable time each night.
- ▶ Those who exercised in the morning reported feeling less stressed throughout the day.
- ▶ Those who exercised at night said they felt more relaxed after exercising.
- ▶ One participant reported they did not have frequent headaches, since beginning the program; which is a symptom of stress.



Research Findings

Depression

- ▶ People suffering from depression have a tendency to not exercise.
- ▶ Exercising for thirty minutes a day has been proven to have anti-depressive effects on those with depression.
- ▶ Researchers have also found exercise to be both a preventative and corrective intervention.
- ▶ Programs lasting at least sixteen weeks yield the best results.

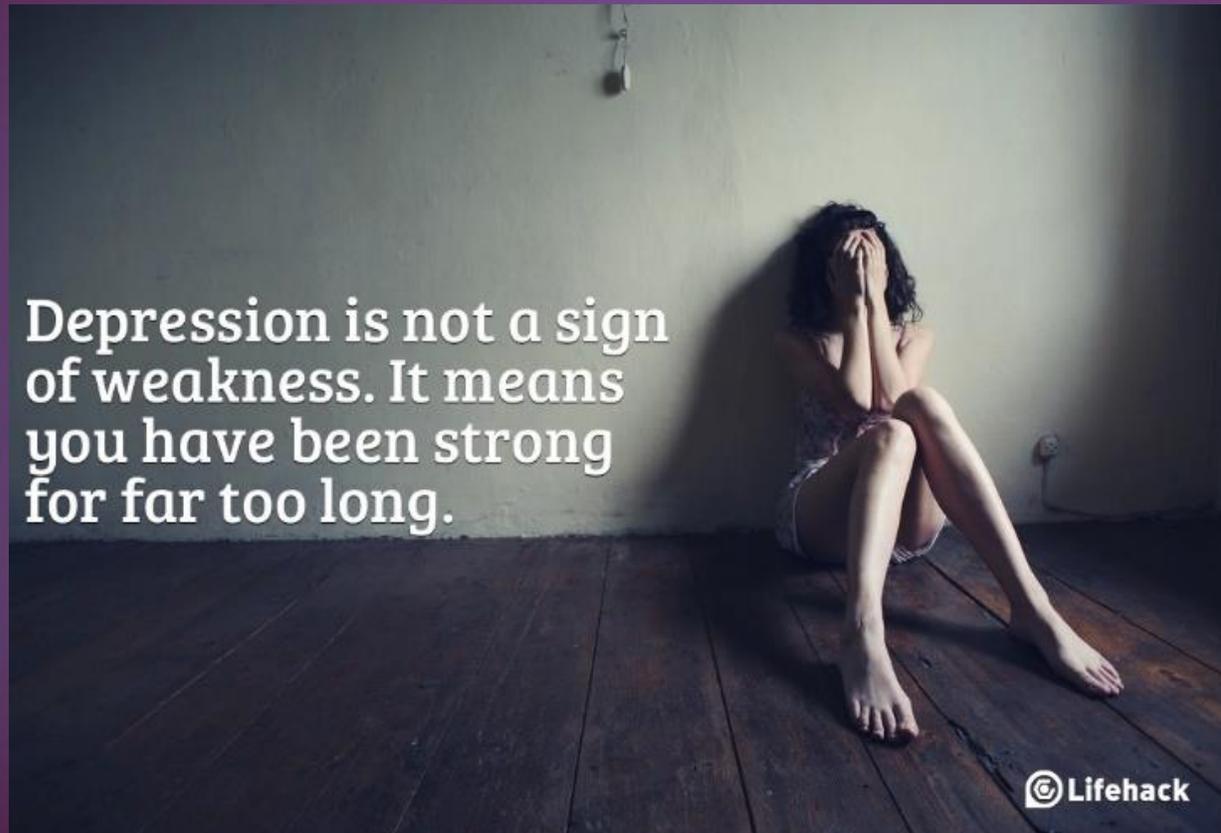
Theme

- ▶ Out of the five participants suffering with depression three noticed a change in their depression symptoms.
 - ▶ Decreased insomnia episodes to seven out of the twenty-one days.
 - ▶ Increased energy.
 - ▶ Increased appetite.
 - ▶ Decrease in the amount of feeling alone, hopeless, and worthless.

Scuderi, R. (2015). *Depression* [Photograph].

Retrieved from

<http://www.lifehack.org/articles/communication/recognize-the-warning-signs-of-depression.html>



Research Findings

Anxiety

- ▶ In terms of psychological well-being, exercise has the greatest effect on anxiety.
- ▶ Researchers also found that short bursts of five-minute aerobic exercises stimulates anti-anxiety effects.

Theme

- ▶ Exercise had the most impact on those suffering from anxiety.
- ▶ All participants noticed a change in their anxiety symptoms.
 - ▶ Decrease in worrying about the future.
 - ▶ Decrease worrying about traumatizing past events.
 - ▶ Being more open to social situations.
 - ▶ Less fatigue.
 - ▶ Decrease in the frequency of headaches.
 - ▶ Decrease sweat levels, in social situations.
 - ▶ Decrease instances of hot flashes. (Overwhelming increase in body temperature)
- ▶ Two of the participants that suffer from frequent anxiety attacks reported to only having eleven panic attacks out of the twenty-one days.
 - ▶ One of the participants said they would have panic attacks at least twice a day.
- ▶ The other said they would have them once a day, depending on their schedule.



Research Findings

Mood

- ▶ Out of all the psychological well-being mood is the least documented.
- ▶ Researchers are still perplexed as to how exercise affects mood.
- ▶ Due to the fact mood is affected by many factors.
- ▶ Anaerobic and aerobic exercise acts as an anti-depressive drug and it releases endorphins, which has been proven to have a calming effect and improve mood levels.

Theme

- ▶ Participants found this the hardest question to answer.
- ▶ Two of the participants did not notice any changes to their mood levels.
- ▶ One participant said they noticed a change in their moods, but did not know if it was due to his promotion at his job that he was hoping for or due to exercising.
- ▶ Another participant reconnected with a loved one and does not know if their mood levels changed due to that or exercising.
- ▶ The other six participants attributed, their increase in mood level to exercising.

The Wheel of Persuasion. (2013, August 29). How Are You Feeling Today? [Photograph]. Retrieved from <http://www.wheelofpersuasion.com/technique/affect-heuristic/>



Recommendations for Future Studies

- ▶ Larger Sample Size
- ▶ Before and After Experiment
 - ▶ Period of 16 weeks

Conclusion

- ▶ The hypothesis, which states that indoor-outdoor physical exercise will have a positive effect on an individual's psychological well-being, was supported by the data collected.

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