

# Benefits of physical activity on depression psychology essay



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Depression is a disorder that is characterised by frequent episodes of unhappiness and is relatively common but often not diagnosed (Fox, 1999), depression represents the third largest disorder in Europe behind coronary heart disease (Gamble, 2008). People who suffer from depression often feel sad, helpless and have a lack of interest in activities that they once enjoyed. To characterise the levels of depression there are several types including dysthymia, bipolar disorder and seasonal affective disorder. Although the exact cause of depression is unknown research has suggested that depression is linked to an imbalance of neuro-transmitters in the brain such as serotonin, norepinephrine and dopamine. Factors that may contribute to depression include heredity, stress, chronic illnesses, negative personal traits such as low self esteem and hormonal changes (Tortora, 2009). Medication is the most widely used treatment for depression ahead of cognitive behavioural therapy but studies have shown that a person partaking in regular physical activity has a reduced risk of becoming depressed and with people already suffering from depression physical activity can be used as a natural remedy to treat the condition (Corbin, 2009).

Rothon et al. (2010) published an article demonstrating the link between physical activity and levels of depression. In 2001, 3, 322 people participated in the study, depressive symptoms were measured using a short moods and feelings questionnaire and in 2003, 75% (2, 093) of the participants were followed up with the same questionnaire and the results showed evidence for an association between levels of physical activity and decreased depressive symptoms (Rothon, 2010). This is not the only study that has showed a

positive link between exercise and depression, there is a wide range of literature covering all ages and scenarios in which depression occurs. Two large meta-analyses in 2001 and 2006 studied the effects of physical activity as a primary therapy for depression in adults. Compared to non exercise control groups depressive scores were lowered and the exercise groups had a significant benefit from physical activity. This study also highlighted the fact that physical activity was as effective as cognitive behavioural therapy. Depression can also improve the risk of other diseases, major depressive disorders are an independent risk factor for cardiovascular disease (Gamble, 2008). The exact mechanisms responsible for the physical activity related improvement in depression are not known but there are some theories behind why the psychological changes occur and the mental well-being is generally improved.

Neurotransmitters are made up of 3 to 40 amino acids linked by peptide bonds called neuropeptides; one of these neuropeptides is endorphins. Endorphins are opioid peptides (naturally occurring) with a pain relieving effect 200 times stronger than morphine, acupuncture produces analgesia (loss of pain sensation) by increasing the release of these opioids. Endorphin hypothesis is based around the fact that the brain releases endorphins when exercising; they inhibit pain by blocking the release of a certain substance P that is scientifically linked to memory, learning, sexual activity, control of body temperature and mental illness (Tortora, 2009). When physical activity occurs, this physiological response leads to a feeling of well-being for an individual. Another physiological response from physical activity is the monoamine hypothesis which states that when in short supplies the

neurotransmitters serotonin, norepinephrine and dopamine, or monoamines as they are collectively known, are the cause of depression and with the increase in these monoamines resulting from physical activity, over time could alleviate or completely reverse the effects depression. The thermogenic hypothesis relates to the monoamine theory and the fact that heat produced within the body when performing physical activity could influence the release, synthesis or uptake of monoamines and the intensity of the activity may mediate or determine the level of reduction in depressive effects (Buckley, 1999).

Performing physical activity allows an individual to take their mind off of certain anxieties or stressors in life, distraction theory states that this diversion is a possible psychosocial mechanism for the improvement of mental health. Social reinforcement is another psychosocial mechanism, the theory that positive verbal feedback and group exercising creates an atmosphere and situation in which social interaction is possible. This indicates that going to the gym or taking exercise classes can improve an individual's social network and give them a sense of mastery in a particular activity that provides motivation to re-participate in exercise (Buckley, 1999).

Although studies have verified the theories behind this link the methods used in the research have relied on questionnaires and an individual's own perception of what is happy or sad, whereas a study in obesity and physical activity benefits can be measured by weight loss there is no guarantee that the rating scale used will have the same meaning for any number of people.

With this in mind however, the potential benefit of physical activity in the <https://assignbuster.com/benefits-of-physical-activity-on-depression-psychology-essay/>

treatment of depression far outweighs the potential risk that no effect will occur, there are very few negative side effects possible such as injury or exercise dependence (Biddle, 2000) therefore the use of physical activity is a very valid and effective therapy to try and combat signs and symptoms of depression. A future study that may be worth carrying out to ease and control the effects of depression could use acupuncture in conjunction with physical activity as the backbone of the research as the increase in endorphins and monoamines may produce a positive effect that could potentially be an ideal therapy.