

## Exercise and mental health



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# Introduction

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Physical activity can have a positive effect on aspects of mental health and psychological well-being, such as depression, mood and cognitive function. In this course we will examine the effects that exercise can have on different aspects of our mental health. We will use the case study of Malcolm.

We will begin by defining what is meant by the term 'mental health'. Corbin et al. (2008, p.5) define mental health and wellness as the absence of mental illness, such as depression, and the ability to cope with daily challenges in a positive, optimistic and constructive manner. Using this definition there are potentially two ways in which exercise can benefit mental health. First, exercise can prevent or reduce the extent of mental illnesses such as depression. Second, exercise can enhance mood and reduce stress levels, thus allowing us to tackle daily challenges in a more positive, optimistic and constructive way.

This OpenLearn course is an adapted extract from the Open University course [E233 Sport and exercise psychology: a case study approach](#).



# Learning Outcomes

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After studying this course, you should be able to:

- demonstrate an awareness of the links between physical activity and mental health
- understand some of the proposed theories of why exercise benefits mental health.

# 1 Exercise and mental health

## Activity 1 The psychological benefits of exercise

Allow about 30 minutes

View the

[Mental Health Foundations's guide on 'How to look after your mental health using exercise'](#).

Make a list of the key psychological benefits potentially associated with participating in physical activity and some of the research studies that support these benefits.

**Comment**

The key benefits noted within the guide are:

1. Exercise is associated with increased mental alertness.
2. Exercise can lead to an increase in energy and positive mood.
3. Exercise can lead to an increase in self-esteem.
4. Exercise results in the reduction of stress and anxiety.
5. Exercise can prevent the development of mental health problems.
6. Exercise can improve the quality of life of those who are experiences mental health problems.

## Activity 2 Evidence to support the link between physical activity and mental health

Allow about 30 minutes

In the previous activity you examined some of the evidence that links participation in physical activity with improved mental health. In this activity you will examine the importance of such research and the types of research evidence that exist.

Listen to Track 1, 'Physical activity and mental health: what's the evidence?', and complete the tasks below. In this clip you will hear Dr Gaynor Parfitt and Professor Adrian Taylor discussing the evidence that exists to support the notion that there is a link between physical activity and mental health. Dr Parfitt and Professor Taylor are exercise psychologists at the University of Exeter, specialising in this field of research.

Audio content is not available in this format.

[Physical activity and mental health: what's the evidence?](#)

1. Make a list of the types of research they discuss (e.g. epidemiological research). Search for definitions of these types of research using the internet.)
2. Why is it important to provide research evidence of the link between exercise and mental health?
3. What is said about the quality of some of the research that exists?

### Comment

1. Dr Parfitt and Professor Taylor discuss two main types of research:
  - **Dose–response research.** As the name suggests, dose–response studies involve participants being given a dose of something, after which their response is measured. In this case, participants would be given a ‘dose’ of physical activity and the impact on their mental health (response) measured.
  - **Epidemiological research.** Epidemiology is the study of the incidence, prevalence and control of health and disease across a population. In the context of this activity, epidemiological research would therefore be interested in patterns of mental health and physical activity across a population.
2. Professor Taylor suggests that the more evidence there is for a positive link between physical activity and mental health, the more likely it is that healthcare services will be directed towards providing exercise as a treatment for mental health conditions. Unless evidence can be provided, the government will not invest in exercise as a treatment for such conditions.
3. Professor Taylor suggests that although most people believe that exercise makes you feel better, the quality of research examining exercise and mental health is not always as good as it could be. This is often because it can be difficult to control physical activity.

## 2 The role of exercise in reducing anxiety and depression

It has been suggested that one in six adults in Great Britain suffers from a mental health condition, such as depression or anxiety (Cooper and Bebbington, 2006), which makes the effective treatment of these conditions an issue of great importance. Anti-depression medication is often prescribed to treat depression, but compliance with taking these medications is often poor and they can have negative side effects (Lawlor and Hopker, 2001). Exercise has been suggested as an alternative or additional treatment to medication and other treatments.

### Activity 3 Fit to fight depression

Allow about 20 minutes

View the video titled 'Fit to fight depression'. This video outlines the work of universities in the south-west of England investigating the role of exercise in reducing depression. What are the benefits of using exercise to treat depression as opposed to anti-depression medication?

If you are reading this course as an ebook, you can access this video here:

[Fit to Fight Depression](#)

#### Comment

The video gives an interesting account of depression in the UK in general and the work of the universities involved in the project. The researchers in the video suggest that exercise may be a better form of treatment than medication, because it can give people a sense of control and self-management and has minimal side effects.

### Case study: Malcolm

Malcolm has been having a difficult time recently. Six months ago his brother died after a long illness. He was very close to his brother and has found it difficult to come to terms with the loss. Malcolm has gradually become more and more withdrawn and depressed. Some mornings he simply can't face leaving the house and going to work and often spends the day in bed feeling low and unhappy.

Malcolm's doctor has told him that he is suffering from depression. The doctor is reluctant to prescribe anti-depression medication to Malcolm, so instead recommends exercise. However, Malcolm is a little sceptical that exercise can help him.



## 3 Why does exercise improve mental health?

So far, we have seen lots of evidence to show that exercise can have a positive impact on mental health, but why is this the case? What is it about engaging in physical activity that leads to enhanced mental health? In the next activity we will attempt to answer this question.

### Activity 4 Why does exercise benefit mental health?

Allow about 35 minutes

Make a list of the reasons you think might explain why exercise improves mental health.

Now listen to Track 2, 'Physical activity and mental health: why does it work?'. In this clip, Dr Gaynor Parfitt and Professor Adrian Taylor discuss some of the proposed theories about why exercise enhances mental health.

Audio content is not available in this format.

[Physical activity and mental health: why does it work?](#)

How do your explanations compare with those outlined in the extracts you have read or listened to? You may wish to use the Comments section below to share your thoughts about which explanations seem most plausible to you, and comment on other postings from members of your group.

#### Comment

There is no one theory or hypothesis that has been universally accepted to explain the link between exercise and mental health. Instead, several different hypotheses have been proposed. These can be split into two categories: (1) physical or bio-physical and (2) psychological or psychosocial.



Figure 1 Exercise can make us feel better and improve our mood

Inga Spence/Alamy

It has been shown that exercise has a positive effect on mental health, but in practice it can be difficult to pinpoint the exact reasons why. This may be because a combination of factors is leading to improvements in mental health, rather than one factor alone. Also, because people differ greatly, explanations for improvements to mental health may vary according to the person concerned.

## Conclusion

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This free course provided an introduction to studying Education, Child and Youth Qualifications. It took you through a series of exercises designed to develop your approach to study and learning at a distance and helped to improve your confidence as an independent learner.

This resource is part of the '[Wellbeing and Mental Health Collection](#)' collated by The Open University in Wales. You can find out more and discover other courses, articles and interactives on the [collection homepage](#).

## References

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## Acknowledgements

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**Figure 1:** © Inga Spence/Alamy

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