

School-based interventions to prevent anxiety, depression and conduct disorder in children and young people: a systematic review and network meta-analysis

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Plain English summary

Interventions for anxiety, depression and conduct disorder

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Plain English summary

Anxiety, depression and conduct disorder are the most commonly diagnosed mental disorders among children and young people in the UK. Research suggests that preventing mental disorders from developing before adulthood can provide the largest benefit to the individual, society and the economy. Prevention programmes in schools are at the forefront of recent prevention attempts; studies evaluating whether or not they work have shown a small, but positive, effect.

In this report, we combined these studies to determine which type of school-based prevention programme was the most effective and best value for money for preventing anxiety, depression or conduct disorder. The types of programmes we included were psychological, educational and physical. For example, a physical intervention may be exercise, meditation or relaxation based. An educational intervention may provide information to the young person about mental health disorders and where to seek help. Psychological interventions typically address behavioural (actions and activities), cognitive (thoughts, reasoning, understanding), emotional and social factors. The programmes could be universal or targeted. Universal means that children are included regardless of whether or not they are showing signs of problems. Targeted means that only those children at higher risk of developing a problem, or already showing very early signs of mental health problems, are included.

When combining the results of studies, it is important that the studies include similar participants and comparable programmes, and record the effects of the programmes in similar ways. Programme effects are measured as 'outcomes' from the study. The main outcomes of interest in our report were symptoms of anxiety, depression and conduct disorder as reported by the young people themselves (self-reported). We were primarily interested in the outcomes immediately after the programme had been completed.

We separated studies into primary school settings (ages 4–11 years), secondary school settings (ages 12–18 years) and tertiary settings, for example university (up to 19 years of age), and planned separate statistical analyses for each. The findings were mixed. We found some evidence that in primary school settings cognitive-behavioural programmes may be effective in preventing symptoms 'of anxiety' but not symptoms of depression. In secondary school settings, universally delivered interventions based on cognitive-behavioural therapy and mindfulness or relaxation may be effective at preventing anxiety and depression. There was also evidence that exercise programmes may be effective when delivered to young people at higher risk (targeted) in secondary schools. We were not able to run similar analyses for the university settings. The studies evaluating prevention of conduct disorder were not similar enough to be combined and they did not use self-reported symptoms as their outcome measure. Instead, teachers and parents were asked to report on the students' behaviours. We did not run statistical analyses, but the authors of the original studies concluded that there was some evidence that programmes were effective in primary school settings.

Very few studies assessed the cost of the anxiety, depression or conduct disorder programmes, or whether or not they were value for money. Studies that did evaluate 'economic evidence' concluded that school-based, preventative interventions are unlikely to be value for money.

Many of the studies we included were small or not rigorously designed. Previous research has suggested that such studies are likely to overestimate the effectiveness of the interventions they evaluate. Therefore, we need to be cautious in interpreting the results of our study. Nevertheless, there was some evidence that school-based interventions are effective in preventing symptoms of anxiety, depression and conduct disorder. This evidence was weak, and we recommend that further large well-designed studies be conducted to investigate this further. Critically, these studies must also evaluate value for money.

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