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[Intervention Review]

Psychological therapies for the management of chronic and recurrent pain in children and adolescents

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ABSTRACT

Background

Chronic pain affects many children, who report severe pain, distressed mood, and disability. Psychological therapies are emerging as effective interventions to treat children with chronic or recurrent pain. This update adds recently published randomised controlled trials (RCTs) to the review published in 2009.

Objectives

To assess the effectiveness of psychological therapies, principally cognitive behavioural therapy and behavioural therapy, for reducing pain, disability, and improving mood in children and adolescents with recurrent, episodic, or persistent pain. We also assessed the risk of bias and methodological quality of the included studies.

Search methods

Searches were undertaken of MEDLINE, EMBASE, and PsycLIT. We searched for RCTs in references of all identified studies, meta-analyses and reviews. Date of most recent search: March 2012.

Selection criteria

RCTs with at least 10 participants in each arm post-treatment comparing psychological therapies with active treatment were eligible for inclusion (waiting list or standard medical care) for children or adolescents with episodic, recurrent or persistent pain.

Data collection and analysis

All included studies were analysed and the quality of the studies recorded. All treatments were combined into one class: psychological treatments; headache and non-headache outcomes were separately analysed on three outcomes: pain, disability, and mood. Data were extracted at two time points; post-treatment (immediately or the earliest data available following end of treatment) and at follow-up (at least three months after the post-treatment assessment point, but not more than 12 months).

Main results

Eight studies were added in this update of the review, giving a total of 37 studies. The total number of participants completing treatments was 1938. Twenty-one studies addressed treatments for headache (including migraine); seven for abdominal pain; four included mixed



pain conditions including headache pain, two for fibromyalgia, two for pain associated with sickle cell disease, and one for juvenile idiopathic arthritis. Analyses revealed five significant effects. Pain was found to improve for headache and non-headache groups at post-treatment, and for the headache group at follow-up. Mood significantly improved for the headache group at follow-up, although, this should be interpreted with caution as there were only two small studies entered into the analysis. Finally, disability significantly improved in the non-headache group at post-treatment. There were no other significant effects.

Authors' conclusions

Psychological treatments are effective in reducing pain intensity for children and adolescents (<18 years) with headache and benefits from therapy appear to be maintained. Psychological treatments also improve pain and disability for children with non-headache pain. There is limited evidence available to estimate the effects of psychological therapies on mood for children and adolescents with headache and non-headache pain. There is also limited evidence to estimate the effects on disability in children with headache. These conclusions replicate and add to those of the previous review which found psychological therapies were effective in reducing pain intensity for children with headache and non-headache pain conditions, and these effects were maintained at follow-up.

PLAIN LANGUAGE SUMMARY

Psychological therapies for the management of chronic and recurrent pain in children and adolescents

Psychological therapies (relaxation, hypnosis, coping skills training, biofeedback, cognitive behavioural therapy) are treatments that may help people manage pain and its disabling consequences. For children and adolescents there is good evidence that both relaxation and cognitive behavioural therapy (treatment that helps people test and revise their thoughts and actions) are effective in reducing the severity and frequency of pain in chronic headache, recurrent abdominal pain, fibromyalgia, sickle cell disease, and juvenile idiopathic arthritis immediately after treatment is delivered. Psychological therapies also have a lasting effect for improving mood and reducing pain for chronic headache. Forty-nine per cent of children who received psychological therapies reported less pain compared with 17% of children who did not receive a psychological therapy. Disability is improved immediately after treatment for many pain conditions (not chronic headache) which helps young people to participate in important daily activities. More studies are needed to understand whether psychological therapies can improve mood and have more lasting effects on pain and disability in other groups of young people who have chronic pain.