Psychological and educational interventions for atopic eczema in children
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Authors' objectives
Background: Psychological and educational interventions have been used as an adjunct to conventional therapy for children with atopic eczema to enhance the effectiveness of topical therapy. This is an update of the original Cochrane review.
Objectives: To assess the effect of psychological and educational interventions for atopic eczema in children.

Search methods: We updated our searches of the following databases to January 2013: the Cochrane Skin Group Specialised Register, CENTRAL in The Cochrane Library (2012, Issue 12), MEDLINE (from 1946), EMBASE (from 1974), OpenGrey, and PsycINFO (from 1806). We also searched six trials registers and checked the reference lists of included and excluded studies for further references to relevant randomised controlled trials (RCTs).

Selection criteria: Randomised controlled trials of psychological or educational interventions, or both, used to assist children and their carers in managing atopic eczema.

Data collection and analysis: Three authors independently applied eligibility criteria, assessed trial quality, and extracted data. A lack of comparable data prevented data synthesis, and we were unable to conduct meta-analysis because there were insufficient data.

Main results: We included 10 RCTs, of which 5 were new to this update; all interventions were adjuncts to conventional therapy and were delivered in primary- and secondary-care settings. There were 2003 participants in the 9 educational interventions and 44 participants in the 1 psychological study. Some included studies had methodological weaknesses; for example, we judged four studies to have high risk of detection bias, attrition bias, or other bias. Our primary outcomes were participant-rated global assessment, reduction in disease severity (reported as objective SCORAD (SCORing Atopic Dermatitis)), and improvement in sleep and quality of life. No study reported participant-rated global assessment or improvement of sleep. The largest and most robust study (n = 992) demonstrated significant reduction in disease severity and improvement in quality of life, in both nurse- and dermatologist-led intervention groups. It provided six standardised, age-appropriate group education sessions. Statistically significant improvements in objective severity using the SCORAD clinical tool were recorded for all intervention groups when compared with controls. Improvements in objective severity (intervention minus no intervention) by age group were as follows: age 3 months to 7 years = 4.2, 95% confidence interval (CI) 1.7 to 6.8; age 8 to 12 years = 6.7, 95% CI 2.1 to 11.2; and age 13 to 18 years = 9.9, 95% CI 4.3 to 15.5. In three of five studies, which could not be combined because of their heterogeneity, the objective SCORAD measure was statistically significantly better in the intervention group compared with the usual care groups. However, in all of the above studies, the confidence interval limits do not exceed the minimum clinically important difference of 8.2 for objective SCORAD. The largest study measured quality of life using the German 'Quality of life in parents of children with atopic dermatitis' questionnaire, a validated tool with five subscales. Parents of children under seven years had significantly better improvements in the intervention group on all five subscales. Parents of children aged 8 to 12 years experienced significantly better improvements in the intervention group on 3 of the 5 subscales. Authors' conclusions: This update has incorporated five new RCTs using educational interventions as an adjunct to conventional treatment for children with atopic eczema. We did not identify any further studies using psychological interventions. The inclusion of new studies has not substantially altered the conclusions from the original review. The educational studies in both the original review and this update lack detail about intervention design and do not use a complex interventions framework. Few use an explicit theoretical base, and the components of each intervention are not sufficiently well described to allow replication. A relative lack of rigorously designed trials provides limited evidence of the effectiveness of educational and psychological interventions in helping to manage the condition of atopic eczema in children. However, there is some evidence from included paediatric studies using different educational intervention delivery models (multiprofessional eczema interventions and nurse-led clinics) that these may lead to improvements in disease severity and quality of life. Educational and psychological interventions require further development using a complex interventions framework. Comparative evaluation is needed to examine their impact on eczema severity, quality of life, psychological distress, and cost-effectiveness. There is also a need for comparison of educational interventions with stand-alone psychosocial self-help.

Bibliographic details
Ersser Steven J, Cowdell Fiona, Latter Sue, Gardiner Eric, Flohr Carsten, Thompson Andrew Robert, Jackson Karina, Farasat Helen, Ware Fiona, Drury Alison. Psychological and educational interventions for atopic eczema in children.
AccessionNumber
10000004054

Date abstract record published
13/07/2012

Record Status
This is an abstract for a Cochrane review