

# ADJUNCTS TO ECZEMA CARE: DIFFERENT METHODOLOGICAL APPROACHES

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## Background

The quest for acceptable and effective ways of managing eczema goes on.

The mainstay of treatment is the regular application of topical preparations. This can be challenging for patients, parents and children alike and it is well known that treatment concordance is hard to achieve. There is ongoing interest in non-pharmacological adjuncts to eczema care. Investigation of these approaches has been conducted using different research methods, each of which has a particular value. This review of three recently published papers illustrates how a systematic review, a randomised crossover trial and an exploratory qualitative study have contributed to knowledge generation around adjuncts to the treatment of eczema

## First study

### Citation

Ridd MJ, King AJL, Le Roux E, Waldecker A, Huntley AL. Systematic review of self-management interventions for people with eczema. *Br J Dermatol.* 177, 719-734 2017

### Context

Eczema has a high self-management demand, but lack of support and education for patients and parents of children with the condition can lead to poor concordance and result in treatment failure. Internationally, there is increasing recognition that self-management programmes may be helpful but, to date, the active ingredients of such programmes are not fully understood.

## Methods

A systematic search of the MEDLINE, MEDLINE in process, Embase, CINAHL and the Global Resource for Eczema Trials (GREAT) was conducted to identify randomised controlled trials published between database inception date and August 2016. Twenty studies conducted in 11 countries with a total of 3,028 participants met the inclusion criteria for the review. Data were extracted from each paper using a bespoke data extraction tool.

## Key findings

The majority of studies (18/20) were secondary care based and focused on children with eczema (16/20). Face-to-face educational interventions were most commonly used (13/20), five interventions were delivered online

and two investigated the use of written action plans. Reporting of interventions and specific outcomes was generally poor and follow-up was limited to 12 weeks in 12/20 studies. There was inadequate evidence of effectiveness of the interventions.

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## Commentary

This thorough review has identified a lack of high quality, well reported trials of eczema self-management interventions. Although some interventions show promise there remains a gap in knowledge about the most clinically

and cost effective way to support self-management of eczema.

### Implications

Intuitively, and from clinical experience as nurses, we know that effective eczema self-management needs adequate support. This review demonstrates that new research is needed about the most effective approaches. Equally, there is a need to accurately and thoroughly report the intervention components, for which there is now guidance such as the TIDieR checklist.<sup>1</sup>

### Second study

#### Citation

Su JC, Dailey R, Zallmann E et al. Determining effects of Superfine Sheep wool in INfantile Eczema (DESSINE): a randomised paediatric crossover study. *Br J Dermatol.* 2017, **177**:125-133

#### Context

Traditionally, people with eczema are advised against wearing wool as it is often considered to be an irritant. Available evidence is outdated, having been produced mainly in the 1950s when trial reporting standards were less rigorous. This trial sought to investigate the effect of superfine merino wool on young children with a SCORing Atopic Dermatitis (SCORAD)<sup>2</sup> score indicating mild-to-moderate eczema.

#### Methods

A 12-week single centre, randomised, crossover, prospective cohort study involving 39 children aged 4 weeks to 3 years. Participants were initially allocated to wool or cotton clothing, and after 6 weeks this was swapped for a further 6 weeks. Every 3 weeks measures of SCORAD, the Atopic Dermatitis Severity Index (ADSI)<sup>3</sup> and the Infants Dermatitis Quality of Life (IDQOL)<sup>4</sup> scale were recorded by assessors who were not aware of which clothing the child had been wearing. Higher scores on SCORAD and ADSI indicate more severe disease and on IDQOL point to a greater detrimental impact on quality of life. Parents kept a diary to record patterns of wear. Eczema treatment was standardised to minimise confounding variables.

### Key findings

SCORAD scores reduced for both groups from baseline to 12 weeks, but the decrease was greater in the cotton-first group. Overall, compared with baseline wool ensembles were associated with a mean SCORAD reduction of 2.5 at 3 weeks and 7.6 at 6 weeks when compared with cotton ensembles. A similar pattern was seen in ADSI and IDQOL scores. Changing from wool to cotton clothing resulted in an increase in all scores. Adherence to wear for at least 6 hours per day was reported by parents in over 85% of days in both groups.

### Commentary

This is a small Australian-based study and findings should be interpreted with caution. The authors point to a range of reasons that may have influenced the greater impact of wool ensembles, for example differences in the age of children in each group, the number of visits completed by the cotton-first group before swapping to wool, and confounding environmental factors.

### Implications

This study suggests some improvement in skin condition and quality of life when using superfine merino wool ensembles. However, the small sample size, sparse information about the garments and other confounding factors limit its value. Significant further research would be needed before any change in current practice was considered.

### Third study

#### Citation

Wake EV, Batchelor J, Lawton S, Thomas KS, Harrison EF, Cowdell FC. The experiences of children and young people of using silk garments for the treatment of eczema: a nested qualitative study within the CLOTHES randomised controlled trial. *Br J Dermatol.* Accepted Author Manuscript. doi:10.1111/bjd.15909 2017

#### Context

There is increasing interest in engaging children with eczema in both healthcare consultations and research. The extent to which this happens is variable, and traditionally in research children are

treated as vulnerable and dependent. Proxy child reports are often sought from parents or practitioners. Research is generally conducted "on" rather than "with" children with their experiences being subsumed by or extrapolated from adult views. The Clothing for the Relief of Eczema Symptoms (CLOTHES)<sup>5,6</sup> trial actively engaged children in evaluating their experiences of using silk garments in a qualitative study nested within a randomised controlled trial.

### Methods

In total, 18 children aged 5-15 participated in focus groups, face-to-face interviews or telephone interviews once they had completed the randomised controlled trial. Parents consented to their children participating, and children gave their assent either verbally or by signing an assent form. Data were collected by an experienced child nurse researcher. Age appropriate activities were designed to help children communicate their experiences of using the garments. This involved creative work and storytelling, as well as more traditional research interviews with older children. Care was taken to check understanding of conversations with, and artefacts produced by, the children ensure authenticity in portraying their experiences.

### Key findings

Four key themes were generated from the data: expectations of the garments; wearing silk garments; did they help; and thoughts about the garments. Children had high hopes for the garments and these were not realised, although some reported limited improvement in skin condition, comfort or wellbeing. They were disappointed in the feel of the garments, having expected them to feel 'silky' and were aware of deterioration in garment condition over time. Adherence to wearing the garments was variable and children gave specific and personal explanations for this. This study demonstrates that with sufficient planning children can be meaningfully engaged in dermatology research and that they can offer nuanced and particular views that would not be elicited from other sources.

**Commentary**

This qualitative study was nested within a large multi-centre RCT.<sup>5,6</sup> The study demonstrates how even young children can effectively be engaged in research. When combined with other data, such as the quantitative RCT results and findings from parental qualitative data, this work provides a rounded and robust evidence-base about the value of silk garments in childhood eczema.

**Implications**

This study demonstrates the value of qualitative studies nested within RCTs to increase confidence in thoroughness of result. More importantly it illustrates how children can be engaged in research which is so important particularly when investigating long-term conditions in which the children themselves will be influential in concordance with therapy. **DN**

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