Primary hyperhidrosis: a systematic review

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CRD summary
This review aimed to assess the effectiveness of psychologically-based approaches in the treatment of hyperhidrosis (excessive sweating). No conclusions could be drawn about the effectiveness of the treatments. The authors' conclusions reflect the poor quality of the evidence available.

Authors' objectives
To identify the efficacy of psychologically-based approaches in the treatment of essential hyperhidrosis.

Searching
MEDLINE, CINAHL, PsycINFO, EMBASE, British Nursing Index, TRIP, AMED, PapersFirst, DARE, the Cochrane Library and Conference Proceedings Index were searched from inception to March 2003; the search terms were reported. There were no language restrictions. The reference lists of relevant publications were also screened.

Study selection
Studies reporting quantitative data on the effectiveness of a psychological-based intervention on primary hyperhidrosis were eligible for inclusion.

Of the included studies, two used cognitive therapy interventions, two biofeedback interventions and two a combination of relaxation with biofeedback. The outcome measures included skin conductance and sweating rates. The age range of the included participants was 16 to 53 years.

Two reviewers independently assessed studies for inclusion, with any disagreements resolved by consensus.

Assessment of study quality
The studies were assessed against one of two checklists (according to study design) which examined issues such as whether controls were examined randomly, whether the disease state was reliably assessed and validated, and whether the inclusion criteria were explicit. A table of the checklists was presented.

The authors did not state how the validity assessment was performed.

Data extraction
Measures of change in outcomes were extracted and effects were then classified as being either positive (mainly significant, favouring the intervention), negative (intervention had a detrimental effect), inconclusive (more than one outcome with differential effects), or as having no significant differences.

One reviewer extracted the data, which a second reviewer then checked. Any disagreements were resolved by consensus.

Methods of synthesis
The results were pooled in a narrative synthesis and differences between the studies discussed, with study details tabulated.

Results of the review
Six studies (n=47) were included in the review: 2 case-control studies (n=17) and 4 case series (n=30).

Overall, the quality of the studies was poor (all of the case series studies satisfied only one, or none, of the checklist items). Lack of an appropriate statistical analysis was one of the main problems.
Five studies reported a positive intervention effect and one reported no significant effect. No studies reported negative intervention effects.

**Authors’ conclusions**
No conclusions could be drawn about the effectiveness of psychological interventions for primary hyperhidrosis.

**CRD commentary**
The review addressed a clear question and was supported by appropriate inclusion criteria. Attempts to identify all relevant studies in any language were undertaken by searching electronic databases and checking references. Study quality was assessed and was used in interpreting the results of the review, although the authors did not provide details of how the quality assessment was performed, so it is difficult to comment on the risk of error and bias being introduced into this process. Sufficient study details were provided. However, the synthesis classified studies as negative, positive, or having no effect. This is inappropriate because it takes no account of sample size, study validity or size of effect. Conclusions based on such a synthesis cannot, therefore, be regarded as reliable. However, the authors’ conclusions do reflect the poor quality of the evidence available.

**Implications of the review for practice and research**
Practice: The authors did not state any implications for practice.

Research: The authors stated that randomised controlled trials assessing psychological interventions for hyperhidrosis should be conducted.

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**Record Status**
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.