



## Psychological and educational interventions

<p>We <b>suggest</b> that therapeutic patient education programmes with proven efficacy in children and adults with AE are widely implemented.</p>		<p style="text-align: center;">100%</p> <div style="text-align: center;">  <p><b>100 % Agreement</b></p> </div> <p style="text-align: center;">(14/14) Expert Consensus</p>
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### Introduction to therapeutic patient education (TPE)/ complex interventions

Psychological and emotional factors as well as psychodynamic structures within the family are well-known elements that may influence the clinical course of AE.<sup>1</sup> Stress can elicit severe exacerbations of the disease and perpetuate the itch-scratch cycle. Anxiety or depression are acknowledged comorbidities in AE patients.<sup>2</sup> Furthermore, poor QoL and adherence to treatment are key issues in these patients.<sup>3</sup> As a multidimensional phenomenon, low treatment adherence is influenced among others by the disease itself, its chronicity but also by the patient's beliefs and characteristics. It can be improved by introducing specific strategies after understanding the patient's adherence pattern.<sup>3</sup> Therapeutic patient education (TPE) programmes were originally designed to enable people with chronic diseases to manage their illness (increasing autonomy and decreasing medical complications). They can help patients and their families to better understand and accept their disease and cope with treatment in order to improve QoL and treatment adherence. The aim of TPE is not simply to provide information by leaflets, but entails the transfer of skills (e.g. disease self-management strategies, knowledge of treatments, relaxation and behavioral therapy techniques) from a trained healthcare professional to the patient or their parents.<sup>4</sup> Additionally, as TPE is a patient-centered holistic care, it should facilitate a better partnership between doctors and their patients/caregivers. TPE can also help restore family dynamics. Parents with negative treatment experiences in the past and poor coping abilities regarding scratch control are likely to benefit most from TPE programmes.<sup>5</sup>

High-quality TPE programmes should ideally be evidence-based, tailored to patient's needs, taking into account the individual educational and cultural background (rather than being standardized in form and content). It should also have a well-defined content and activities that are provided by an interdisciplinary health care team.<sup>6</sup>

In terms on efficacy on disease severity outcomes, a recent meta-analysis including 7 RCTs that evaluated the effect of parental education with a total of 1853 children showed a significant difference in the SCORAD scores between the TPE and non-TPE groups (standardized mean difference = - 8.22, 95% CI = - 11.29, - 5.15;  $p < 0.01$ ).<sup>7</sup> The quality of evidence was assessed by Grading of Recommendations Assessment, Development and Evaluation (GRADE). However no significant differences in terms of QoL between groups were identified. A wide variety of interventions programmes are used depending of cultural backgrounds and health care systems (individual psychosomatic counseling, individual nurse or psychologist-led sessions, single or multiple interdisciplinary group sessions, written action plans, lectures, online videos etc.) and optimal delivery mode needs to be determined.<sup>8</sup> Although evidence remains limited regarding the efficacy of each of these interventions in the management of AE, the best efficacy results and level of evidence are provided by interdisciplinary well structured age related group programmes in adults and children.<sup>6,9</sup>

**Nurse or psychologist-led programmes**

There is some evidence that eczema workshops lead to an improvement in severity scores with greater adherence in AE management, itch-scratching cognition, and additional psychological benefit.<sup>6</sup> Nurse led programmes result in more effective use of topical therapies, improvement of severity scores and may be sparing doctor's time compared to standard care.<sup>10</sup> The relative effectiveness of nurse led programs compared to multidisciplinary age related, structured programmes is unclear.

**E-health**

There is some evidence that a direct-access, online model for follow-up dermatologic care is equivalent to classical in-person care in terms of efficacy but less costly.<sup>8</sup>

**Other approaches**

As adjunctive therapies and in order to cope with AE, different psychological interventions can be useful. They can have a positive effect on the severity of the disease and on itching and scratching behaviors. A systematic review including 8 RCT, revealed that 5 showed a significant reduction in eczema severity.<sup>11</sup> Autogenic training (a systematic form of relaxation involving increasing awareness of the body), cognitive-behavioral therapy, habit reversal and behavioral therapies seems to be more effective rather than aromatherapy, brief dynamic psychotherapy and stress management programme. An effect on itching intensity has been found in all different kind of interventions evaluated except for habit reversal behavioral therapy.

**Conclusion**

Structured interdisciplinary high quality education programmes should be implemented regardless of the severity of AE. They can improve the efficacy of topical treatment and be particularly helpful in evaluating the next treatment steps like the necessity of introducing systemic treatments. Psychological interventions, for example autogenic training, relaxation, cognitive-behavioral therapy, habit reversal and behavioral therapies have a positive effect on different aspects of AE.

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