Factors Influencing Quality of Life in Atopic Dermatitis

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Objectives
To identify the most important determinants of quality of life (QoL) for adults with Atopic Dermatitis (AD) and for the parents of children with AD.
To examine the relative importance of clinical and non-clinical factors in determining QoL in AD.
To examine whether the variables identified as important are similar for both adults with AD and the parents of children with AD.

Methodology
Galen Research have developed two needs-based QoL instruments specific to patients with AD: The Quality of Life Index for Atopic Dermatitis (QoLIAD) for use with adults with AD, and the Parent’s Index of Quality of Life in Atopic Dermatitis (PIQoL-AD) for use with the parents of children with AD.

Data collected in a 6-month, multinational, open-label study of AD treatments were analysed using Stepwise Multiple Regression. Demographic, symptom and disease-related variables were included in the analyses.

Data were available from 319 AD patients who completed the QoLIAD (Age Range 18-85, Mean=37.9, SD=14.8) and 182 parents of children with AD who completed the PIQoL-AD (Age of child 2-12, Mean=7.6, SD=4.9).

Regression analyses were conducted to help identify which factors were the most important in determining parent and adult QoL. Stepwise regression was chosen to identify which independent variables were the best at predicting QoL score.

The potential predictor variables entered into the regression included:

Gender
Age
Visibility of Flare-up (yes/no)
Duration of Flare-up
Time Spent with Flare-up Per Year
Iitch (moderate/severe/extreme)
Swelling (moderate/distinct/very distinct)
Redness of AD (noticeable/red/bright red)
Number of Nights Affected
Number of Times Woken in the Night
Percentage of Work Performance Affected
Number of Days Off School/Work
Percentage of Body Affected
Number of Flares Per Year
Treatment Concern (5-point: very-not at all)
Unhappy/Depressed (5-point: always-never)
Severity of AD (moderate/severe)

PIQoL-AD Analyses
For the PIQoL-AD 32.9% of the variance (p < 0.0001) was accounted for by seven of the predictor variables.

Table 2 shows the relative impact that each of these variables had on the PIQoL-AD regression model. The predictor variables were entered into the regression in the order that they contribute to the variance. Therefore, the variable that has the highest correlation with PIQoL-AD is:

- Amount woken in the night due to flare-up
  Followed by:
  - Number of days the child misses school
  - Performance at work
  - Age of child
  - How unhappy/depressed their child’s flare-ups make them feel
  - Number of flare-ups per year
  - Total time spent with a flare-up each year

There were consistencies across the groups regarding the most important determinants of QoL, such as how depressed the flare-ups make people feel, their influence on performance at work, and the number of times woken during the night. However, specific symptoms such as swelling, itch and redness did not contribute significantly to either model.

Conclusions
These results reveal that the QoL of adults with AD and the parents of children who have AD are influenced by a number of similar variables. However, specific clinical factors such as Iitch, Swelling and Redness did not influence QoL scores. Therefore, a focus solely on the symptoms of AD would omit important influences on QoL.

References:

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