

## The Influence of Finances and Education on Quality of Life in Atopic Dermatitis

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### Abstract:

**Background:** Atopic Dermatitis (AD) is a chronic, pruritic inflammatory cutaneous disease that affects people of all ages and demographics. In the United States, AD affects over 30 million people and 10.2% of adults. AD is known to be cumbersome and financially taxing, significantly affecting patients' quality of life (QoL). As disease prevalence increases and new therapies arise, a better understanding of the socioeconomic burden becomes critical. The objective of this study is to assess the financial implications across various socioeconomic backgrounds and community types from the patient perspective within a single institution that serves rural, suburban, and urban areas.

**Methods:** A 22-question cross-sectional survey was conducted through telephone calls. Inclusion criteria included patients  $\geq 18$  years old with an ICD code for AD seen at our institution over the past 10 years. Patients were adults of varying ages, genders, races, and ethnicities. Patients self-reported information on their AD diagnosis, socioeconomic status, education level, affordability, expenses related to their AD, and factors affecting their QoL. Statistical analysis was performed using SPSS.

**Results:** Sixty-four patients participated in the survey, with a response rate of 78%. Responders were predominantly female (55%), with a mean age of 41. Participants were 48% White or Caucasian, 36% Black or African American, and 16% Asian or Asian American. Self-reported disease severity was labeled as mild (17%), moderate (33%), or severe (50%). Yearly income levels were reported as less than \$50k (23%), \$50-100k (14%), \$100-150k (16%), more than \$150k (20%), and 27% declined to answer. Thirteen respondents (21%) reported that they had been unable to afford their medications at some point, only three had household incomes of less than \$50,000/year. Most respondents (36%) stated that over-the-counter treatments and supplies were the most expensive aspects of their AD care. The financial burden of AD for each income level did not differ significantly across income levels. Regarding education, 36% had less than a college degree, 42% earned a college degree, and 22% earned a postgraduate degree. Most individuals answered that they almost or completely understood their disease and treatment options when asked (81%).

When asked to select up to three factors from a list that affect their QoL due to AD, 14 respondents identified financial burdens, five chose transportation, five selected access to medical care, and two indicated access to supplies. These factors did not vary significantly across different income groups.

**Conclusions:** Our study found that one in five patients have been unable to afford treatment at some point. The understanding of disease and treatment options may not be based on education level but rather on health literacy. Understanding the socioeconomic impact of disease facilitates better resource allocation and knowledge of how we can better serve the evolving patient population.