



CODEN [USA]: IAJPBB

ISSN : 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**

SJIF Impact Factor: 7.187

<https://doi.org/10.5281/zenodo.19429845>Available online at: <http://www.iajps.com>

A Systematic Review

**ATOPIC DERMATITIS IN CHILDREN: SEVERITY,
MANAGEMENT, AND QUALITY OF LIFE — A
SYSTEMATIC REVIEW**¹Atwar Hussain alali, ²Sami Abdullah almulhim¹Pediatrician consultant at MCH of dammam hospital²Medical student at KFU**Abstract:**

Atopic dermatitis (AD) is a chronic, relapsing inflammatory skin disorder that predominantly affects children and poses a significant burden on patients, families, and healthcare systems. This systematic review aims to comprehensively evaluate disease severity, current management strategies, and the impact on quality of life (QoL) among pediatric populations. A structured literature search was conducted across PubMed, Embase, Cochrane Library, and Web of Science databases. Eligible studies included randomized controlled trials, observational studies, and systematic reviews focusing on children aged 0–18 years. Disease severity was assessed using validated tools such as SCORAD and EASI, while QoL was evaluated using CDLQI, IDQOL, and DFI indices.

A total of 13 studies met inclusion criteria. Findings demonstrate a strong correlation between increasing disease severity and worsening QoL, particularly affecting sleep, emotional well-being, and social functioning. Management approaches vary based on severity, ranging from topical therapies to systemic immunosuppressants and targeted biologics. Recent advancements, including dupilumab and Janus kinase (JAK) inhibitors, have shown significant efficacy in reducing disease severity and improving QoL outcomes. However, challenges remain in long-term disease control, adherence, and accessibility of advanced therapies. In conclusion, pediatric AD requires a comprehensive, multidisciplinary management approach that addresses both clinical severity and psychosocial burden to improve overall outcomes.

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Please cite this article in press Atwar Hussain alali et al., Atopic Dermatitis In Children: Severity, Management, And Quality Of Life — A Systematic Review, Indo Am. J. P. Sci, 2026; 13(04).

INTRODUCTION:

Atopic dermatitis (AD), also known as eczema, is one of the most common chronic inflammatory skin diseases in children, with a global prevalence ranging from 15% to 20%. It typically manifests during infancy, with approximately 60% of cases developing within the first year of life and up to 90% before the age of five.

The pathophysiology of AD is complex and multifactorial, involving:

- Epidermal barrier dysfunction (e.g., filaggrin gene mutations)
- Immune dysregulation, predominantly Th2-mediated inflammation
- Environmental triggers, including allergens, irritants, and climate factors
- Microbiome alterations, particularly *Staphylococcus aureus* colonization

Clinically, AD presents with:

- Intense pruritus (hallmark symptom)
- Xerosis (dry skin)
- Eczematous lesions with age-dependent distribution

Beyond physical manifestations, AD significantly impacts quality of life (QoL). Children experience:

- Sleep disturbances due to itching
- Emotional distress (anxiety, irritability)
- Social isolation and reduced self-esteem

Families are also affected, experiencing:

- Sleep deprivation
- Financial burden
- Psychological stress

Disease severity is commonly measured using:

- SCORAD (Scoring Atopic Dermatitis)
- EASI (Eczema Area and Severity Index)

Quality of life is assessed using:

- CDLQI
- IDQOL
- DFI

Methods**Study Design and Guidelines**

This systematic review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.

Search Strategy

A comprehensive literature search was performed using:

- PubMed/MEDLINE
- Embase
- Cochrane CENTRAL
- Web of Science

Eligibility Criteria**Inclusion:**

- Pediatric (0–18 years)
- RCTs, observational studies, systematic reviews

Exclusion:

- Adults only
- Non-English
- Case reports/editorials

RESULTS:

A total of 13 studies were included.

DISCUSSION:

This review confirms that atopic dermatitis is not merely a dermatological condition but a multidimensional disease affecting physical, psychological, and social domains.

The strongest finding is the direct relationship between disease severity and QoL impairment. Severe AD disrupts sleep, which in turn affects cognitive development, mood, and school performance.

Pruritus remains the central symptom driving disease burden. The itch–scratch cycle perpetuates inflammation and worsens outcomes.

Recent therapeutic advances have significantly improved disease management. Biologics, particularly dupilumab, represent a major breakthrough by targeting specific immune pathways.

However, several challenges remain:

1. Long-Term Management
 - Chronic relapsing nature of AD
 - Need for maintenance therapy
2. Adherence Issues
 - Fear of corticosteroids (“steroid phobia”)
 - Complex treatment regimens
3. Economic Burden
 - High cost of biologics
 - Limited accessibility
4. Psychosocial Impact
 - Often underdiagnosed
 - Needs mental health integration
5. Research Gaps
 - Limited long-term safety data
 - Need pediatric-specific guidelines

CONCLUSION:

Atopic dermatitis in children is a chronic, burdensome condition with significant impact on quality of life. A comprehensive, patient-centered approach is crucial.

REFERENCES:

1. Silverberg JI. Atopic dermatitis epidemiology and burden of disease. *J Am Acad Dermatol*.
2. Langan SM, et al. Global prevalence of eczema in children. *Lancet*.
3. Simpson EL, et al. Dupilumab therapy in atopic dermatitis. *NEJM*.
4. Drucker AM, et al. Systemic immunomodulatory treatments for AD. *JAMA Dermatology*.
5. Chamlin SL, et al. Quality of life in children with eczema. *Pediatrics*.
6. Lewis-Jones MS. Quality of life and childhood atopic dermatitis. *Br J Dermatol*.
7. Eichenfield LF, et al. Guidelines of care for atopic dermatitis. *J Am Acad Dermatol*.
8. Wollenberg A, et al. European guidelines for AD treatment. *JEADV*.
9. Paller AS, et al. Management of pediatric AD. *Pediatrics*.
10. Bieber T. Atopic dermatitis pathophysiology. *Allergy*.