



# Anxiety and Atopic Dermatitis: Current Evidence on Adolescent Risk

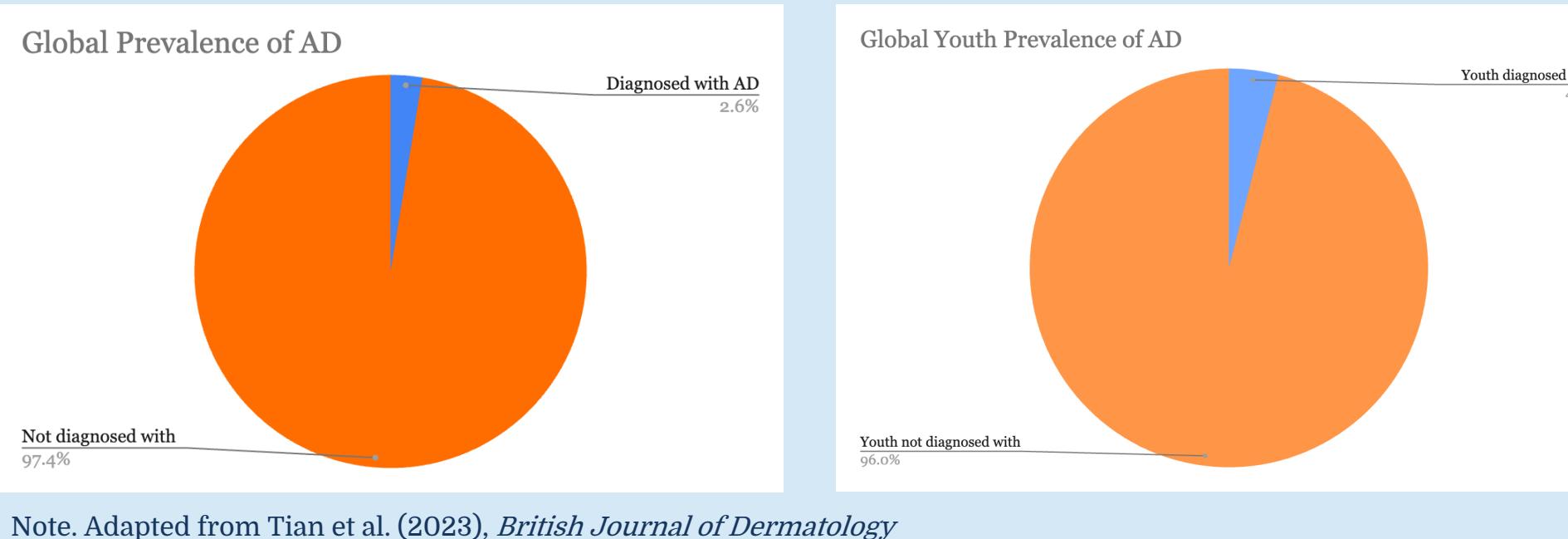
Pranika Senthil, Chloe Wu

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## Background

**Atopic dermatitis** is a chronic inflammatory skin condition caused by a combination of genetic, environmental, and psychological factors.

- Affects 10-30% of children and 2-10% of adults in developed countries (Ferrer-Bruker & Kolb, 2023)



Note: Adapted from Tian et al. (2023), *British Journal of Dermatology*

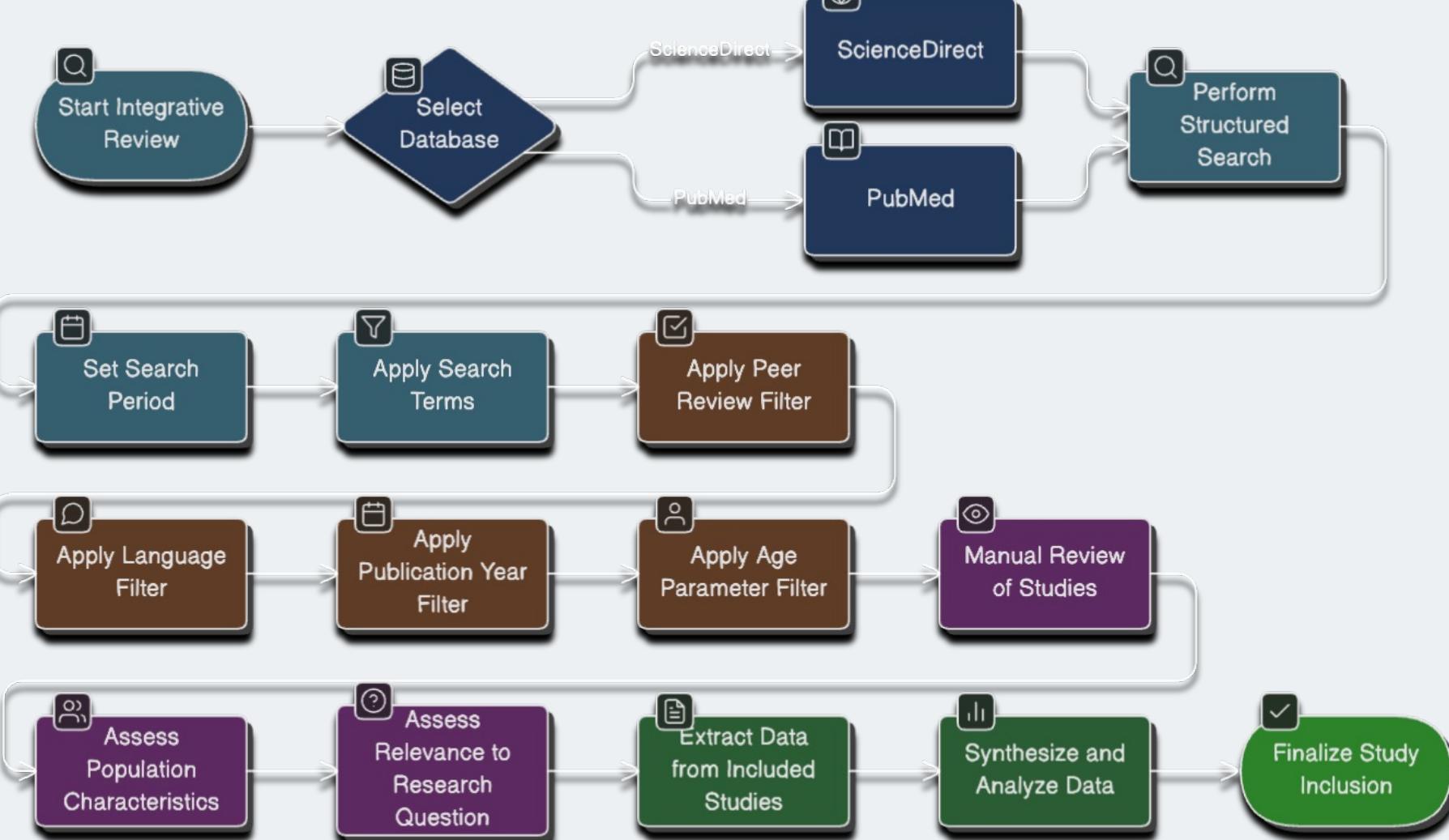
**Adolescence** is a period of increased emotional instability, vulnerability, and impulsivity in *all* teenagers and young adults.

- AD adds physical discomfort, social challenges, and increased stress.
- Visibility of rashes and lesions may influence social isolation and mental health

**Objective:** to investigate how atopic dermatitis increases the risk of developing anxiety disorders in adolescents and why

- Despite increasing awareness of AD's psychosocial impact, there is limited research on anxiety disorders and AD in adolescents
- Findings aim to synthesize current research on this topic

## Methodology



### Data Collection

- ScienceDirect and PubMed databases
- Keywords: "atopic dermatitis"/"eczema", "anxiety"/"mental health", and "adolescent."

### Search Filters

- Peer-reviewed studies
- English-language
- Publishing range: 2010-2025
- Children (birth – 18 years)/Adolescents (13 – 17 years)

After manual revision, five studies—two cross-sectional studies and three narrative/theoretical reviews—met the inclusion criteria.

## Results

**Figure 1. Current and Lifetime Anxiety Disorders Diagnosed in Adolescents with AD (n=36)**

Note: Adapted from Slattery et al. (2011), *Journal of Allergy and Clinical Immunology*

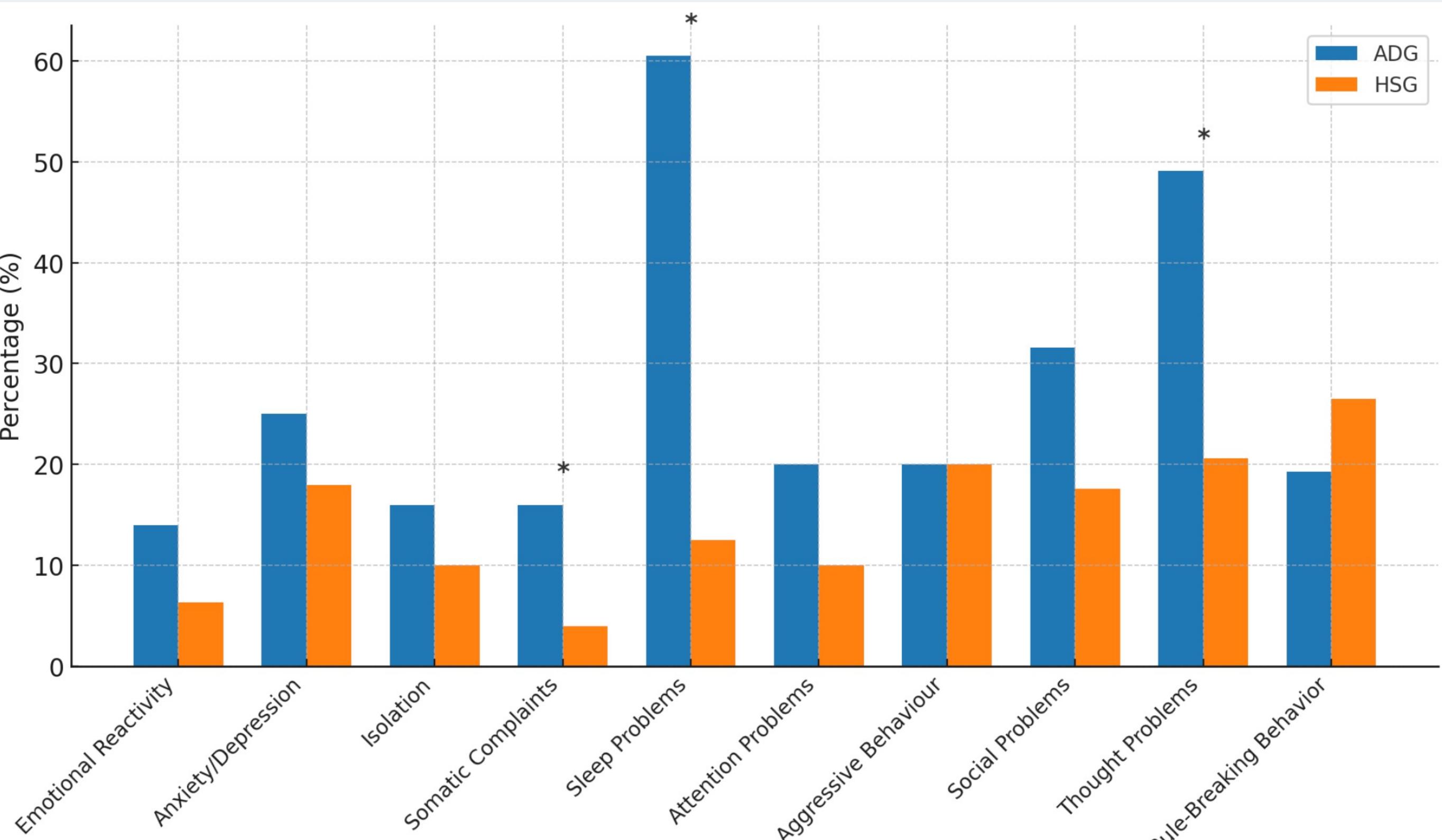
Disorder	Current diagnosis	Lifetime diagnosis
Any anxiety disorder	26% (9)	31% (11)
Separation anxiety disorder	0	9% (3)
Specific phobia	11% (4)	11% (4)
Social phobia	14% (5)	14% (5)
Agoraphobia	0	0
Generalized anxiety disorder	3% (1)	3% (1)

- ~1/3 of adolescents with AD had an anxiety disorder (lifetime)
- Social phobia/anxiety observed as the most common diagnosis of anxiety

Findings highlight elevated anxiety prevalence in AD adolescents compared to the general population.

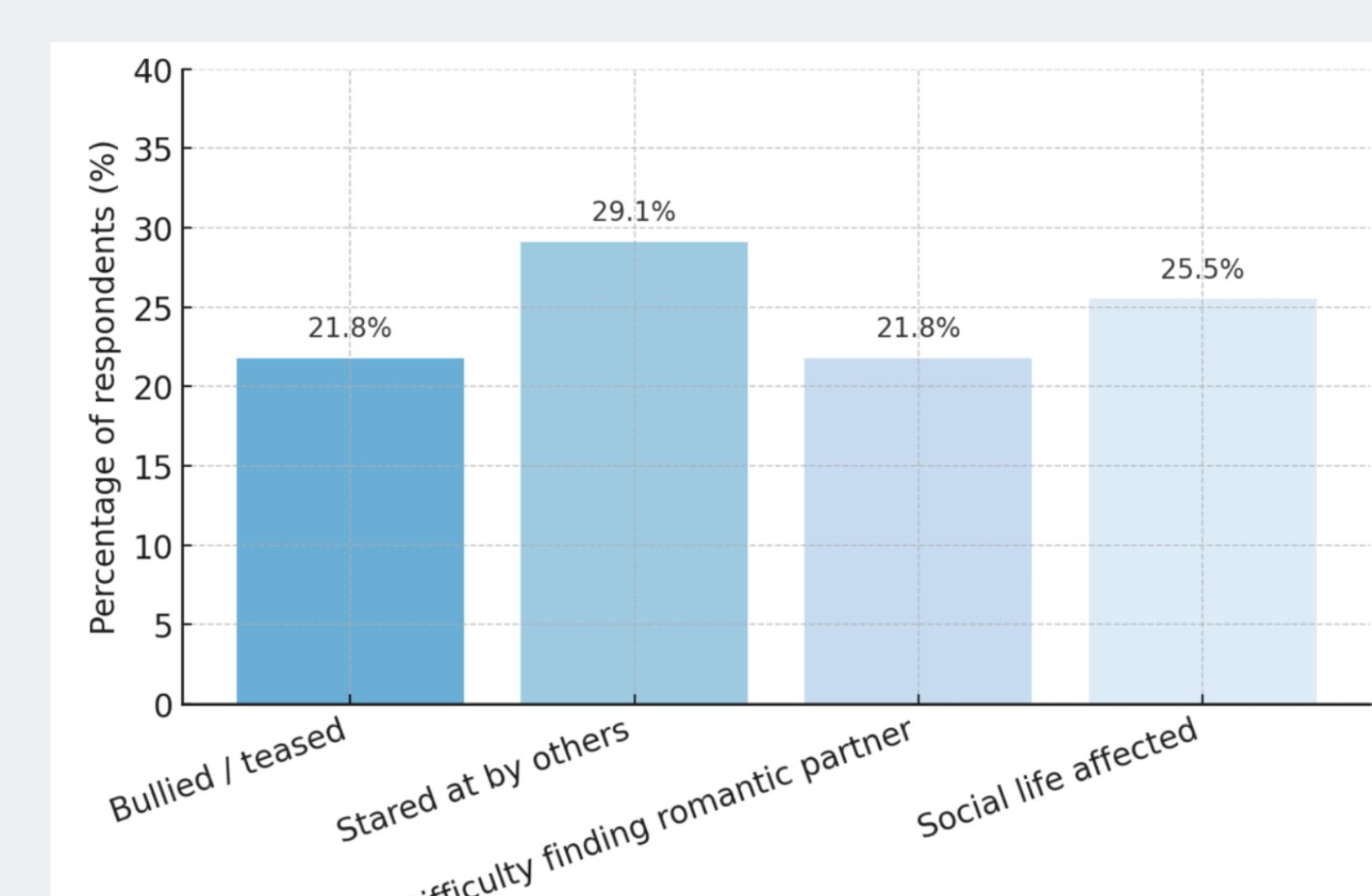
**Figure 2. Comparison of CBCL Syndromes between Atopic Dermatitis Group (ADG) (n=100) and Healthy Sibling Group (HSG) (n=50). \*p<0.05**

Note: Adapted from Muzzolon et al. (2011), *Advances in Dermatology and Allergy*



Overall, ADG showed greater emotional and behavioral difficulties compared to HSG.

## Narrative Evidence



**Figure 3. Social Impact of Eczema and Inflammatory Skin Conditions on Californian University Students (n=336)**

Note: Adapted from Yang & Kourush (2017), *International Journal of Women's Dermatology*

### Psychosocial Risk Factors (Lugović-Mihić et al., 2025)

- Chronic AD-induced stress and sleep disruption can lead to emotional dysregulation
- Internalizing symptoms (e.g., anxiety, behavioral problems, and suicidal ideation) are common in individuals with AD.
- During adolescence, when autonomy and self-esteem are developing, AD may negatively affect psychological growth (Lugović-Mihić et al., 2025).
- Adolescents with AD reported lower overall quality of life compared to healthy peers.
- Inflammatory skin conditions undermine self-esteem, social functioning, and peer relationships, often leading to emotional isolation.
- Greater severity of AD is linked to stronger impacts on mental health, social limitations, and reduced self-image.

### Impact on Quality of Life (Yang & Kourush, 2017 and Vivar & Kruse, 2018)

- Adolescents with AD reported lower overall quality of life compared to healthy peers.
- Inflammatory skin conditions undermine self-esteem, social functioning, and peer relationships, often leading to emotional isolation.
- Greater severity of AD is linked to stronger impacts on mental health, social limitations, and reduced self-image.

## Discussion and Conclusion

- Adolescents with AD show significantly higher prevalence of anxiety disorders compared to the general population and those without AD
  - Social anxiety was one of the most common diagnoses
- Developmental feature of adolescence (e.g., identity formation, self-consciousness, peer-acceptance) can increase psychological burden
- Chronic inflammation and dysregulated cortisol secretion in AD interfere with mood regulation
  - Persistent itching and sleep disruption further affect emotional stability
- Quality of life studies report reduced self-esteem, impaired social functioning, and greater emotional distress among adolescents with AD
- Physiological and psychosocial factors interact together, causing increased vulnerability to anxiety disorders

Overall, findings demonstrate that AD not only characterizes as a dermatological condition, but as a multidimensional condition with an increased risk for anxiety development, especially during adolescence.

## Limitations and Future Directions

### Limitations

- Lack of longitudinal studies under this topic
- Heavy reliance on self-reported surveys
  - Potential response bias
- Anxiety and depression were often grouped together in studies, limiting specificity
- Inconsistent age ranges across studies

### Future Directions

- Future longitudinal studies are necessary to track long-term anxiety and AD trajectories
- Future research should distinguish between anxiety and depression outcomes, studying anxiety separately
  - Currently, there are little to no studies on specifically AD and anxiety
- More specific age ranges in study samples
- Holistic care addressing both dermatological and psychological symptoms

## Selected References

Lugović-Mihić, J., Lukšić, D., Dokladić, L., Žanze, L., Barać, E., Tomasević, R., & Vilibić, M. (2025). Mental Health, Psychological Features and Psychiatric Comorbidity of Adolescents with Atopic Dermatitis: A Review. *Pediatric Reports*, 17(2), 50. <https://doi.org/10.3390/pediatric17020050>

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