

Dermatology in the social media era: Building awareness of social media's impact on adolescent skin disease and mental health

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Introduction:

The contribution of psychological disorders to the burden of skin disease has been poorly explored, especially in adolescent patients.¹⁻⁵ This review aims to provide insights into the psychosocial and social media impact of acne, atopic dermatitis (AD), and aesthetics in adolescent patients.

Methods:

The project used a modified Delphi process comprising face-to-face discussions followed up online. The systematic literature search results (Table 1 and fig. 1) informed the fourteen draft statements. During the meeting, the draft statements underwent the panels' evaluation at a workshop, followed by a plenary discussion adopting five statements using evidence from the literature coupled with the panels' opinions and experiences (Table 2). The second step consisted of a post-meeting review by individual advisors of the manuscript.

Results:

Social media use may have a negative impact on body image.⁵⁻⁹

Greater use of social media is associated with

- Body dissatisfaction
- Appearance anxiety
- Drive for thinness
- Self-objectification
- Lower self-esteem

Taking and posting photos using lenses or filters may lead to

- Body image dissatisfaction
- Shape and weight concerns
- Acceptance and consideration of cosmetic surgery

Normative discontent with body image is to be distinguished from BDD. While some dissatisfaction with physical appearance is normal in individuals presenting for medical esthetic and surgical procedures, the dissatisfaction in BDD is more extreme. Patients think they are ugly or deformed and preoccupations are time-consuming (≥ 1 hr, on average 3-8 hrs per day), usually difficult to control, and distressing. Clinically significant distress and impairment in functioning are the most important criteria for differentiating the disorder BDD from normal appearance concerns.

In BDD insight is often limited, and many patients have ideas or delusions of reference (they believe that others take special notice of or talk about the perceived flaw).

Several studies have demonstrated that the normalization of procedures on various platforms relates to a more positive attitude towards medical esthetic treatment, including cosmetic surgery and dermatological treatment.¹⁰ The increase in desire to undergo these procedures decreases body satisfaction and increases levels of social anxiety.^{6,8-10}

Table 2: Statements

No	Statements
Statement 1	Research has demonstrated an association between both AD and acne with an increased risk of poor sleep, social impairment, and mental health problems, including body dysmorphic disorder (BDD). ¹⁻⁴
Statement 2	Severe body image concerns, including BDD, present with high levels of psychological distress and are significantly associated with inflammatory skin diseases such as AD and acne.
Statement 3	Education for patients with AD or acne and their parents leads to improved self-management skills and self-responsibility, better outcomes, improved quality of life for patients and caregivers, reduced treatment costs, and secondary prevention of comorbidities, including mental health disorders. ^{11,12}
Statement 4	Teens look to social media for medical information and support when seeking cosmetic and dermatologic treatment; however, social media can contribute to unrealistic expectations and mental health conditions, including body image dissatisfaction. ⁶⁻¹⁰
Statement 5	Social media use has potential benefits such as connection, support, increased self-esteem, safe identity experimentation, and an increased opportunity for self-disclosure. Body image acceptance and body positivity campaigns from social media platforms and social media-based micro-interventions may actively combat adverse outcomes in adolescent patients with AD or acne. ^{11,12}

Conclusion:

The association with adverse life events, BDD, suicidal ideation, depression, and anxiety are thought to be high for adolescents with acne and AD. Exploring social media for information has positive and negative aspects. Educating patients and clinicians should be done to increase awareness of the positives and negatives of social media use among adolescents. Action-oriented items should be created to assist dermatologists in addressing these issues in clinical practice.

References

1. Wen et al. *Cell Biochem Biophys*. 2015;71(2):1083-1088
2. Yang et al. *Biomed Res Int*. 2014;2014:504279
3. Molla A et al. *Clin Cosmet Investig Dermatol*. 2021;14:999-1007
4. Magin PJ et al. *J Eur Acad Dermatol Venereol*. 2010;24(1):58-64
5. Burnell K et al. *APA PsycNet* 2021. psycnet.apa.org/record/2021-33151-001
6. Maes C, de Lenne O. *J Child Media* 2022;16(4).
7. Meier EP, Gray J. *Cyberpsychol Behav Soc Netw* 2014;17(4):199-206.
8. Tiggemann M, Slater A. *Int J Eat Disord*. 2013 Sep;46(6):630-3.
9. McGovern O et al *Body Image* 2022;43:504-517.
10. Hermans AM et al. *Body Image* 2022;43:504-517.
11. Silva-Breen H et al. *Body Image* 2022;43:408-419.
12. Lee S et al. *BMC Psychiatry*. 2017;17(1):3.

Table 1: Search strategy

Search strategy	
Sources	PubMed/Medline Google Scholar Cochrane Library PsycInfo
Criteria	English language, 2010-present, humans
Process	Reviewed titles and abstracts then the full article
Article types	Clinical study (case-control, cohort, cross-sectional) Consensus paper Meta-analysis Review Systematic Review

Fig 1: Systematic literature search results

