

Social Media in Dermatology: Shaping Clinical Practice, Public Awareness, and Patient Engagement.

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Abstract:

Social media has become an integral part of modern dermatology, with platforms such as Instagram, Facebook, YouTube, and Snapchat providing dermatologists with opportunities to popularize their practice, educate the public, and promote healthy skin care practices. However, this also raises concerns about misinformation, self-diagnosis, and privacy infringement. The increasing influence of skincare influencers and non-medical, unqualified content creators has led to the rapid circulation of misleading information, impacting patient decision-making, undermining professional medical advice, and promoting unnecessary treatments. Additionally, privacy concerns arise from sharing patient images and treatment results without proper consent. To maximize the benefits while mitigating risks, healthcare professionals must emphasize ethical practices, advocate for accurate information, and adhere to medical guidelines. Individuals must verify the sources of information before following advice related to skincare and dermatological particularly treatments. Influencers, without medical expertise, are responsible for sharing evidence-based information disclosing sponsorships or affiliations. A collective effort is essential to ensure that social media remains a reliable and responsible platform for dermatological education and awareness.

Keywords: Social media, Dermatology, Clinical practice, Public awareness, Patient engagement

Introduction:

Social media has become a transformative force, reshaping clinical practice across many medical specialities, including dermatology. In today's hyperconnected world, it's increasingly uncommon to find someone not plugged into at least one social platform. Over the past decade,

the reach of social media has skyrocketed, with nearly 60% of the global population—around 4.7 billion people—actively engaging on these platforms [1]. The COVID-19 pandemic only amplified this trend, prompting people to turn to digital spaces to maintain human connections during lockdowns and social distancing measures [2,3].

As platforms like Instagram, Snapchat, and Facebook continue to flourish, dermatological knowledge has become more accessible, not just to healthcare professionals but to patients as well. These digital spaces serve as valuable tools for patient education, professional development, and global networking. Dermatologists are leveraging social media to share medical insights, connect with broader audiences, and build their personal and professional brands. Notably, research shows that dermatologists with a strong presence receive higher patient satisfaction ratings [4,5]. Some have even stepped into influencer roles, using their large followings to spread trustworthy information and make a broader impact [6].

However, the integration of social media into dermatological practice isn't without challenges. Concerns have emerged around patient privacy—particularly in relation to the Health Insurance Portability and Accountability Act (HIPAA) compliance—as well as the propagation of unrealistic beauty ideals, misinformation, and a growing trend toward self-diagnosis and treatment without proper medical consultation.

This literature review delves into the influence of social media on dermatology, examining its role in clinical practice, patient awareness, and engagement while also addressing its potential pitfalls and forecasting its evolving impact on the field.

Discussion:

The Rise of Social Media in Dermatological Discourse

Social media platforms enable users to interact, share information, and engage in real-time discussions. Users can edit and share photos, videos, and blog content depending on the platform [7]. According to the Health Research Institute, 42% of consumers in the United States have used social media for health-related reviews, 32% to learn about family and friends' health experiences, and 29% to explore other patients' disease journeys [8]. Individuals on social media platforms such as Instagram, Facebook, and YouTube share a wealth of information on skincare advice, preferences, disease-specific inquiries, personal experiences. This literature review aims to explore the influence of social media on dermatology clinical practice, assessing its benefits and drawbacks while outlining future directions.

Instagram: A Hub for Dermatology Visibility and Aesthetic Influence

Instagram is one of the most widely used social media platforms, experiencing continuous growth since its launch in 2010. Its vast user base continues to grow, making it a dominant force in digital engagement and content sharing. Features like hashtags (2011), video sharing (2013), and Reels (2020) have driven its popularity, reaching 1.3 billion monthly users by October 2021 [9]. Many hashtags related to dermatological conditions are observed on Instagram, indicating that users actively utilize the platform to share their experiences with various skin conditions.

This includes hashtags related to eczema, acne, alopecia, skin cancer, psoriasis, and many more skin conditions [10]. Instagram is a powerful tool for healthcare providers to launch their clinics, share expertise, and showcase results, helping build trust and grow their following. Clinics invite influencers to experience their services, creating a strong first impression, while influencers share remarkable reviews and results, attracting new clients and enhancing the clinic's reputation. Instagram allows you to sponsor your page for a set fee, helping you reach a wider audience, potential clients, and enhance engagement. Dermatologists also use Instagram to spread accurate skin health information, debunk myths, and educate followers. Notable accounts like @globaldermie feature rare dermatological cases, inspiring medical students Educational institutions [11]. also Instagram for visibility and engagement, showcasing academic programs and promoting direct interaction. With a young, international, and highly interactive audience, Instagram is an ideal tool for educational institutions looking to enhance their online visibility [12]. COVID-19 restrictions limited in-person interactions, prompting a rise in Instagram use among dermatology residency programs. This trend extended to other medical specialties, helping residencies connect with applicants and adapt to pandemic challenges, highlighting the need for guidelines on effective Instagram use [13,14,15]. However, with many pros come cons as well.

Anyone can post dermatology-related content, increasing the spread of misinformation. Sharing patient images, such as before-and-after photos, raises HIPAA and privacy concerns. The American Medical Association (AMA) Journal of Ethics highlights the ethical implications of sharing such content [16]. In today's age of aesthetics, social media platforms like Instagram also promote unrealistic beauty standards, leading dissatisfaction with one's appearance, resulting in exaggerated cosmetic procedures like Botox, lip fillers, and liposuction rather than natural refinements [17,18]. Manv posts sponsorship-driven rather than evidence-based, prioritizing marketing over medical accuracy.

Facebook: Community Support and Professional Outreach

Facebook, the world's most popular social media platform, has 3.07 billion monthly active users— 37.81% of the global population and 59.38% of social media users [19]. It is crucial in professional education, patient engagement, and awareness campaigns. Dermatologists utilize the platform expand to their reach, organizations like the American Academy of Dermatology maintaining a strong presence [20]. Exposure to medical images and information on Facebook can prompt check-ups and lead to earlier diagnoses [21].

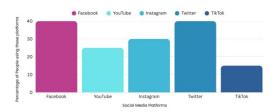


Figure 1: Bar Chart: Percentage of People Using Social Media for Dermatological Information[22].

It plays a key role in skin cancer awareness, with organizations like the Skin Cancer Foundation and the Melanoma Research Alliance accumulating over 65,082 and 59,991 followers, respectively. Petukhova et al. found that 63% of Facebook posts on skin cancer share personal experiences and offer encouragement, functioning like support groups [22,23]. Similarly, many disease-focused groups provide psychosocial support, helping individuals feel less isolated—Facebook hosts the largest identified support group for Hidradenitis Suppurativa patients [24].

YouTube: Educational Value Meets Misinformation Risk

YouTube allows users to upload videos of any length, making it a profitable platform for content creators, influencers, and dermatologists. With 1 million subscribers, a YouTuber can earn around \$60,000 annually from ads, while sponsorships and merchandise can push earnings beyond \$300,000 [25]. Dr. Sandra Lee, widely known as Popper," "Dr. Pimple experienced transformative career shift through her use of YouTube. Initially a dermatologist practicing in California, she began uploading videos of skin extractions. Although most of her income still comes from traditional procedures like Botox, vein removal, and skin cancer surgery, her YouTube channel has the potential to generate hundreds of thousands of dollars [26]. dermatologists Influencers and reviewing skincare products on YouTube significantly guide consumer choices. While influencers introduce products based on personal experiences, dermatologists provide expert insights on effectiveness and safety. YouTube is also one of the predominant sources of dermatological surgical videos, including Mohs surgery, shave/punch biopsies, squamous and basal cell cancer excisions, and wart removal. While established learning methods like textbooks and pictures are valuable, videos offer a more real-life experience. Medical students frequently use online videos to supplement their training, from learning basic skills like drawing blood to complex surgeries [27].

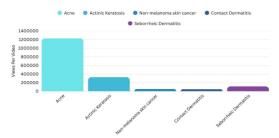


Figure 2: Common Dermatological conditions and their performance on YouTube as views per video [28].

However, despite these advantages, most YouTube videos related to dermatology treatment come from third-party sources and often exhibit bias, information deficiencies, a lack of reliable references, and overall poor quality. While videos featuring dermatologist commentators tend to be more trustworthy in these areas, they are fewer in number and often less visible compared to other content [28]. A study on psoriasis-related videos found inaccurate information, raising concerns about patient education. Similarly, research on tattoo removal videos revealed that many lacked professional input, with few recommending consultations with dermatologists [29,30]. Unverified skincare advice on YouTube is prevalent without considering individual skin differences because what works for one person may not suit another, as skin types, conditions, and sensitivities vary widely. This can lead to adverse reactions, such as irritation, breakouts, allergic responses, or worsening of existing skin conditions [31]. The lack of regulation allows anyone to post dermatology-related content, while algorithm biases prioritize engagement over credibility, making expert-driven videos less visible.

Snapchat: Aesthetic Filters and Their Psychological Impact

Like YouTube, Snapchat enables video sharing, though its short 10-second clips and disappearing content cater to quick, temporary interactions. Snapchat launched the "Stories" feature in 2013, which Instagram recreated in 2016, eventually beating Snapchat in popularity. Other platforms, such as Facebook and WhatsApp, later adopted

the format [32]. Like other platforms, skincare influencers use Snapchat to engage with audiences by reviewing products and sharing morning and nighttime skincare routines. However, as mentioned above, skin care routines or advice may not be effective for everyone and could even lead to more harm than good. Like Instagram, Snapchat filters alter facial features to create a flawless look. Constant exposure distorts self-perception, leading to low self-esteem, Body Dysmorphic Disorder, and "Snapchat Dysmorphia," where users seek surgery to match their filtered selfies. As a result, plastic surgeons report an increase in patients requesting unrealistic enhancements, often requiring psychological counseling instead of surgery [33].

In summary, social media has revolutionized dermatology by expanding public education, improving patient engagement, and offering new opportunities for medical professionals. In addition to the platforms mentioned above, many others, such as TikTok, Twitter, and Reddit, also serve similar purposes. However, social media may also spread misinformation, promote unrealistic beauty standards, and raise concerns regarding patient privacy. To address this, healthcare professionals should share accurate and ethical content, while influencers must promote transparency and provide medically sound skincare advice. Balancing the benefits and drawbacks is essential [34].

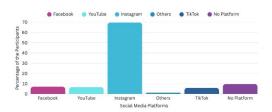


Figure 3: Social media platforms and the amount of content related to Dermatological disease prevention [34].

Conclusion:

Social media has undeniably transformed the landscape of dermatology, offering unparalleled opportunities for education, patient engagement, and professional visibility. Platforms like Instagram, Facebook, YouTube, and Snapchat have empowered both dermatologists and patients by enabling easy access to information and fostering global communities of support. However, this digital revolution also brings

significant challenges, ranging from proliferation of misinformation to ethical concerns about patient privacy and the normalization of unrealistic beauty standards. As the digital influence on dermatology continues to evolve, it is imperative for healthcare professionals to take proactive role in dispensing accurate information online. By promoting accurate, and evidence-based ethical, content, dermatologists can help realise the full potential of social media while mitigating its risks, ultimately leading to a more informed, engaged, and health-literate public.

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