

# The Role of Social Media in Cosmetic Dermatology

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## ABSTRACT

### Systematic Review

**Background:** As the usage of social media has dramatically increased in a few decades it has affected the field of cosmetic dermatology. Social media can help to improve patient care and a cosmetic dermatologist can use social media to eliminate false information that spreads online. However, the majority of patients prefer to take advice from a non-dermatologist rather than a certified dermatologist which negatively impacts patients' healthcare and the doctor-patient relationship. **Objective:** it was to find out how social media usage can impact the field of cosmetic dermatology and what challenges cosmetic dermatologists face while using social media platforms. **Methods:** We performed a literature review using papers from PubMed and many other resources involving social media platforms, including Facebook, Twitter, Instagram, YouTube, WhatsApp, and blogs. **Results:** There are not enough clinical trials done to conclude whether the usage of social media is a pro or a con. A cosmetic dermatologist can face ethical challenges like protecting patients' rights to privacy and autonomy. Also, research has shown that top posts related to cosmetic dermatology and articles written by a board-certified dermatologist are in a small percentage.

**Keywords:** Cosmetic dermatology, Ethical challenges, Facebook, Snapchat and Twitter

## INTRODUCTION

Over the last few decades, usage of social media has dramatically increased. According to research, 86% of adults aged 18 to 29 use social media, with 74% of Facebook users, 60% of Instagram users, and 63% of Snapchat users logging in at least once per day [1]. Lately there has been great interest in the use of social media in medicine, particularly in the field of Dermatology [2]. Many dermatology-related videos provide education by laypeople on dermatology, which has become increasingly popular with patients [3]. Nearly 90% of the individuals aged 18-24 report relying on social media for health care information, 34% state it will influence their choice of medication, and 41% state it will influence their choice of doctor [4]. Finding trustworthy health information online is the biggest challenge [5]. People frequently equate a large following on social media with providing genuine and accurate information

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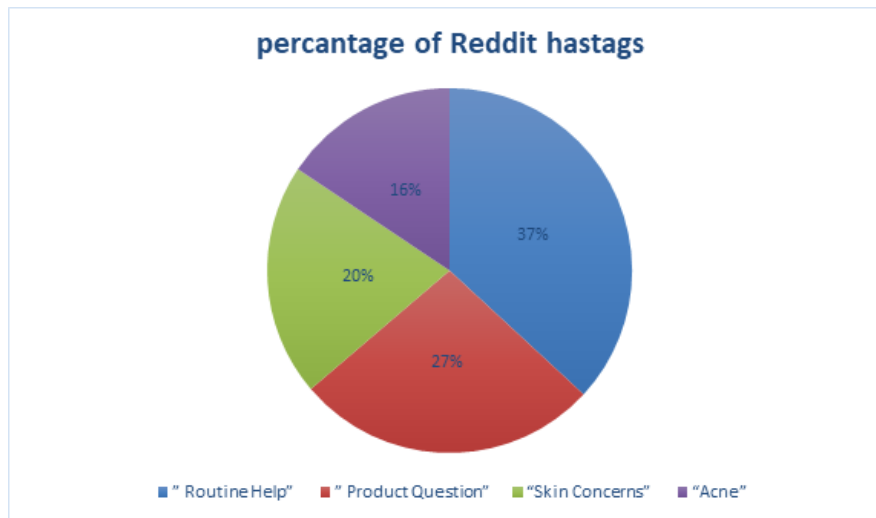
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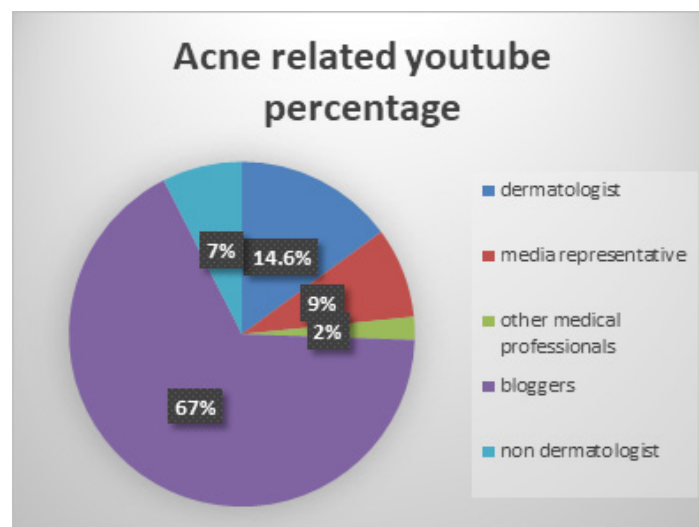
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[2]. Medical advice from unreliable sources could lead to mismanagement, unnecessary treatment, and poor outcome [6]. Among dermatologically interested patients, websites

like Reddit are an important source of information and interaction the hashtags used in Reddit as shown in pie chart 1.



Pie chart 1



Pie chart 2

Patients may be exposed to false information as a result of this practice, a problem that has only intensified in recent years. An analysis of acne-related YouTube videos on pie chart 2.

Overall, there was a tendency towards using home remedies, with toothpaste, aloe vera, and honey frequently mentioned in videos. Young patients with acne issues frequently look for assistance online through social media. Teenagers with acne might search online for quick home remedies for pimples and apply toothpaste or apple cider vinegar to the pimple, getting burned [7-9]. The majority of medical information

shared on social media focuses on unique experiences and stories that might not apply to the general public. Regardless of the seriousness of the health issue, the Internet was always the primary source of information for people who got their health information from the web. The main reasons for using the Internet were the limited time for doctor consultations and the difficulties in obtaining professional healthcare services [9]. Board-certified dermatologists only make up a small fraction of the popular Instagram accounts with dermatology content [6]. A dermatologist who is active on social media is more likely to be sought after by patients.

According to a study conducted on. The reasons why patients are more likely to select a dermatologist who uses social media, however, have not yet been widely researched by studies [2,10]. To promote skin health and eliminate false and potentially harmful information that may be spread on social media by others, a licensed dermatologist or a dermatological society must communicate and share accurate information on social media [2,5].

### IMPACT OF SOCIAL MEDIA

The various social media platforms such as Instagram, Facebook, and YouTube have an immense impact on the field of dermatology. In the modernized world, there have been so many photo editing applications launched which have allowed young people to enhance their effects. Out of all social media platforms, Facebook users account for about (86.4%) followed by YouTube (82%) and Instagram (81.1%) [12]. People have used social media in order to create awareness and motivation related to cosmetic dermatology care. Around 50% of participants declared the need for six motivational factors which motivate them for using cosmetic procedures they are as follows- to improve the quality of life, feel happy or between overall, look young or fresher, be able to look good without makeup, repair damage of the skin, to look between, prettier or more attractive to oneself [12].

### DERMATOLOGISTS' DISPUTE WITH SOCIAL MEDIA

Social media is a platform where there are thousands of posts every day regarding healthcare, and most of these posts are from non-professionals, who tend to spread a lot of misinformation and wrong method regarding healthcare and most of it is related to skincare and beauty as that

specific type of content is largely promoted on social media. Dermatologists can use these social media platforms to engage with millions of users around the world, spread awareness about skincare and health, and combat misinformation that gets promoted by non-healthcare professionals.

Research finds out that dermatologists have an influence of only 12% on Instagram and 3% on Twitter, compared to non-dermatologists [13].

Non-dermatologists influence the majority of the content on social media platforms such as Instagram, Twitter, TikTok, YouTube ETC.

According to a study, more than 125 million Americans, that is roughly 42% of Americans use social media to get information regarding their health, and most commonly, consumers use these platforms to benefit their beauty and skincare, and 45% of the consumers report that social media health information influences their decision to seek care [14]. Studies show that this is going towards improved patient well-being [15]. However, due to a large number of these information providers being non-professionals, their content may contain false information or may not be for everyone as everyone has different skin types. This may result in things going wrong for the consumer as the methods being promoted are not regulated and the consequences can potentially be harmful.

A study was carried out to check the influence of healthcare professionals on consumers on social media platforms.

The 43 hashtags queried for this study were tagged in 10,197,884 Instagram posts. Of these, 387 were considered "top posts" and 258 met the inclusion criteria.

Types of healthcare workers	Percentage of posts on Instagram
Physician	80
Nurse or nurse practitioner	10
Dentist	4
Esthetician	3

**Table 1**

A total of 91 unique posters (35%) work in the healthcare field and the percentage are shown in table 1; of these, 27 (10%) reported board certification in a medical specialty, of which 23 (9%) were confirmed online.

There were 40 posts by dermatologists who self-identified as dermatologists, which accounted for 16% of the most popular posts. Among the top posts (14 posts), only 5%

were made by dermatologists certified by the American Board of Dermatology. Of the 7 individuals using the hashtag #boardcertifieddermatologist, 4 were certified by the American Board of Dermatology and 1 was a board-certified dermatologist in Korea [16.]

This study shows that board-certified dermatologists make up a small percentage of the top dermatology-related

posts on Instagram. Most of the best dermatology-related articles are written by people without formal dermatology training. Additionally, compared to non-physicians and non-dermatologists, board-certified dermatologists who post on Instagram and other social media platforms tend to avoid self-promotion in favor of content and education. As the use of social media for medical information increases, patients will benefit from the growing presence of dermatologists on these platforms.

People with dermatology diseases tend to have a low lifestyle [17], low self-esteem, and often feel like they don't tend to fit in with others [18] as the world has set up incredibly high beauty standards, as people tend to focus more on the cover rather than the book itself. This may eventually lead to poor mental health conditions. However, the lack of dermatology services in most middle-class and low-income countries leads to the average public getting health advice from social media platforms for tips, and as mentioned previously, there is a great dominance of non-regulated content regarding health on social media platforms, which can quite possibly lead to worsening their conditions. In order to keep things from happening, dermatologists and other healthcare workers should be promoted on these platforms in order to combat the misinformation and lack of education.

#### **ETHICAL CHALLENGES FOR DERMATOLOGISTS**

Younger patients, particularly younger females are known to rely on social media for choosing their treatment, procedures, or provider. A recent American Survey has shown that social media ranked in the top three for factors to consider when purchasing skin care products and sixth for whether to have a cosmetic treatment [19].

Social media has been praised for its ability to connect people but unfortunately, it can spread misinformation which can be harmful to the viewers, especially concerning aesthetic procedures. Social media can have potentially deleterious effects on patients' mental health and can contribute to various addictive behaviors [19].

Anybody can become a social media influencer, unfortunately, there is a lack of credentials on social media and viewers can fall victim to untested unregulated social media trends [19].

As modern-day dermatologists, we need to be updated about the interactions between social media and dermatology and try to optimize its benefits and decrease its pitfalls. It's not surprising to meet a patient who has already Googled her symptoms, self-diagnosed her ailment, and tried home remedies before coming in for a consultation [9].

Doctor, healthcare, and clinic ratings can lead a patient to or away from them. Physician ratings also affect the patient's attitude towards the doctor [9].

Despite its fundamental value as a means of communication and knowledge, social media use comes with its legal, ethical, and professional challenges.

The Hippocratic oath, the ethical code of medicine, is the very essence of ethics in medicine. It advocates the ethical principles of beneficence, non-maleficence, and respect for life, professional integrity, and patient confidentiality [20]. This has usually applied to face-to-face interactions but with the introduction of newer technologies, this has posed an ethical challenge. For example, photography has become an important part of dermatology especially to visually document lesions and for follow-ups in lesions over time. But this poses a potential risk to patients' rights to privacy and autonomy, especially with the chance of identifying information and the ease of distribution associated with high-quality photographs.

Two principles for legal protection for patients with regard to medical photography have been discussed: protection of the right to self-image and protection of personal information. To ensure complete transparency dermatologists should always obtain consent before taking images and specify that the images are being taken solely for medical documentation and diagnostic follow-ups, as the images taken for documentation can make a patient identifiable [20].

As it is necessary to take consent before conducting clinical assessment the same applies to teledermatology. It is important the patient understands the obtained consent, policies regarding the use of webcams and saving or deleting photos, and data security issues. But there are debates on whether the patient should receive an online or video-recorded explanation of informed consent, or the patient reads his or her electronic informed consent or the patient should sign a paper-based informed consent and upload the scan or can sign an electronic informed consent [21].

One point of view considers that when a patient sends a photograph to the dermatologist for medical advice this can be considered as a conscious autonomous decision that can replace written informed consent. In underdeveloped and developing countries with little access, they might send photographs of their lesions to the dermatologist on social media via private messages. This is perceived by the dermatologist as consent [21].

Dermatologists are also at risk of lawsuits when giving out advice on social media. Dermatologists should avoid accepting "Friend requests" or "Follow requests" on social media platforms from patients or patients' family members [22]. Dermatologists should avoid giving personalized responses that may hint at a patient-healthcare provider relationship [20]. If accepting the friend request is

unavoidable or if approached on social media for medical advice, one should respond by giving out their professional contact number or email through which the patient can book an appointment to discuss further. Additionally, the health care provider should inform the patient about the potential risks of online communications and handling of emergencies. Any information regarding these interactions should be mentioned in the medical records as proof that information was given in a lawful and professional manner.

Profanity, depiction of substance use, and discriminatory language are common in social media use. Because online identity reflects one's professional identity one should abstain from these behaviors [22].

Dermatologists are also advised to separate personal and professional content online to maintain appropriate boundaries of patient-physician relationships.

The American Medical Association supports the use of social media as this can help physicians to connect with peers, and patients and disseminate information.

The AMA recommends that physicians must be cognizant of patient confidentiality and refrain from posting any identifiable patient information online, use privacy settings to safeguard personal information on social networking sites, maintain appropriate boundaries of patient-physician, consider separating personal and professional content online and realize that content shared online can have a negative impact on one's reputation. Healthcare providers should be aware of all the risks before deciding on having an online presence and should consider the outcomes of the risks [20].

## DISCUSSION

One of the most challenging parts of social media use in dermatology or any other healthcare sector is disseminating unreliable and sometimes incorrect medical information. Moreover, that information is based on personal narrative and is oftentimes incomplete, under-referenced unverified credentials [23]. Another major dispute over social media use in dermatology revolves around patient privacy and infringements on patient-provider interactions. One study found that 17% of blogs written by Health care professionals were describing individual patients' enough information to identify the patient or provider [24]. Dermatologists using social media should embrace more precautions because many dermatology posts include images of skin in which the individual characteristics of the patient may be identified [25].

Diving deep into the topic of cosmetics and aesthetics an important aspect for patients wanting cosmetic procedures is the desire to look better in pictures. According to a study,

more than 50% who seek cosmetic dermatological care are to look attractive to themselves or to look young or good without makeup in order to improve their quality of life [26]. Unfortunately, only 37.4% of participants favored going to dermatologists for their cosmetic dermatology care while the majority decided to take advice from non-dermatologists [27].

The photo-editing before posting was found to be very common among social media users. The study observed that hiding skin lesions like, acne or acne scar, pigmentation, and dark circles were the most common reason for editing a photograph. Additionally, fifty percent of participants were dependent on appearance and had untagged themselves or removed a photo from social media when the photo was not digitally enhanced or edited to their liking [12].

Self-esteem describes a person's overall sense of self-worth or personal value. Social media and photo-editing application users had lower self-esteem than non-users in the previous study.

Unless the issue of widely available inaccurate information is proactively addressed, physicians will spend a significant amount of time clarifying the inaccuracies experienced by their patients from these platforms, and patients will be harmed. You end up wasting time trying ineffective treatments that may come with it. Making accurate, engaging, and accessible content available to the general public about acne and other dermatological conditions requires an educational effort [28].

Participants were found to routinely capture and share clinical images via social media applications for a variety of purposes. Many subjects were unaware of the proper use of gadgets to capture images and there was a need to create awareness about obtaining well-documented consent before recording and sharing images with third parties [29].

Millennials (ages 23-38 years in 2019) and baby boomers (ages 55-73 years) shared similar views of social media, while GenX (ages 39-54 years) tended to be the least optimistic. The discovery that millennials have more optimism regarding social media may not be surprising; however, the shift in demographics is important, as millennials are now the largest proportion of the adult population [30].

## CONCLUSION

Professional cosmetic healthcare workers should embrace social media and more clinical trials should be done so we can improve the status of skincare of patients. Furthermore, cosmetic dermatologists need to be educated about how they can effectively use social media platforms to reach out to the targeted audiences. It is crucial that dermatologists take ethical considerations while using social media platforms.



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