

### THE IMPACT OF SOCIAL MEDIA ON MANAGEMENT OF ACNE: A SURVEY FROM CENTRAL INDIA

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#### Abstract

**Background:** It is believed that usage of social media can affect psychological state and impact healthcare seeking behaviour of patients. This study was designed to study the impact of social media on the treatment of acne. **Materials and Methods:** This was a cross-sectional survey conducted in the Dermatology OPD of two tertiary health care centres in Chhattisgarh. 100 consecutive patients attending the OPD with a chief complaint of acne were recruited in the study. The study subjects were made to fill in a questionnaire which collected data on basic demographics, severity of acne, treatment modalities and details of social media including the platforms used, changes made by them and any perceived improvement in symptomatology. **Result:** Of the 100 cases recruited, 55 resorted to social media for treatment of acne. Most patients using social media belonged to the age group 18 to 25 years (43%), were residing in urban areas (62%) and had education beyond matriculation (72%). There was no difference between males and females in social media usage. YouTube was the most commonly used social media platform, followed by Instagram and Facebook. Social media influenced patients most often resorted to OTC products (69%) and home remedies (53%). However, only 6 patients (11%) claimed that there was remarkable improvement. **Conclusion:** This study highlights that the treatment of acne is influenced by patients using social media tools, especially among educated patients and those residing in urban areas. Nonetheless, most of the patients had either no (51%) or very little (38%) benefit from treatment. The treating physician should be aware of the widespread misinformation and should stress upon generating awareness amongst acne patients.

## INTRODUCTION

The internet and social media has impacted every sphere of human life. Medicine remains no exception to this. The role of social media in healthcare has grown manifold in the last couple of decades. It is being utilized by patients for seeking knowledge and psychosocial support and by healthcare providers to disseminate information as well as for brand building and marketing.<sup>[1,2]</sup> Acne is a long-standing skin disease which can lead to scarring as a result of chronic inflammation. A major concern in the patients of acne is the cosmetic appearance of their skin, which may lead to considerable stress and psychosocial impact.<sup>[3]</sup> Patients often resort to information provided on social media platforms, which has a significant

bearing on their treatment.<sup>[4]</sup> Since acne is one of the commonest disorders encountered in dermatological practice, it is crucial that the exact impact of social media on treatment of acne be studied. Although there are a couple of studies that have looked into this, there are no reports on the extent of this problem from central part of India.

## MATERIALS AND METHODS

This was a cross-sectional survey conducted in the Dermatology OPDs of two tertiary health care centres in Chhattisgarh. Between January 2022 to February 2022, 100 consecutive patients attending the OPD with a chief complaint of acne were recruited in the study after collecting informed consent. The inclusion criteria included age greater

than or equal to 12 years, presence of acne for at least a month and willingness to participate in the study. The study subjects were made to fill in a questionnaire which collected data on basic demographics, severity of acne, treatment modalities and details of social media including the platforms used, changes made by them and any perceived improvement in symptomatology. Detailed information was sought on the changes that had been made under the impact of social media, which included the products used, dietary modifications and lifestyle changes. MS Excel was used to enter data from the filled questionnaires. SPSS version 22 (IBM Corp., Armonk, NY, USA) was used for data analysis. Descriptive analysis was done for the demographic data. Chi-square test and Fisher's T test were used to compare the social media users and non-users in terms of various parameters like gender, age, disease severity and primary

management. A p value <0.05 was taken as significant.

## RESULTS

Amongst the 100 study subjects, there were 74 females and 26 males, with a median age of 24 years. 55% of the patients resorted to social media at some point of their illness. Table 1 depicts the demographic profile of the study subjects. Most patients using social media belonged to the age group 18 to 25 years (43%), were residing in urban areas (62%) and had education beyond matriculation (72%). Most of the study population complained of moderate to severe acne. Consultation with friends and family was the most commonly sought treatment initially. Urban residence and a higher education were found to significantly associated with greater social media usage.

**Table 1: Baseline characteristics of the study subjects**

| Parameter                                  | Total (n=100) * | Group consulting social media (n=55) | Group not consulting social media (n=45) | P-value |
|--|-----------------|--------------------------------------|--|---------|
| Gender                                     |                 |                                      |  |         |
| Male                                       | 26              | 14                                   | 12                                       |         |
| Female                                     | 74              | 41                                   | 33                                       |         |
| Age  |                 |                                      |  |         |
| Less than 18 years                         | 27              | 16                                   | 11                                       |         |
| 18-25 years                                | 43              | 24                                   | 19                                       |         |
| More than 25 years                         | 30              | 15                                   | 15                                       |         |
| Residence                                  |                 |                                      |  | 0.04    |
| Rural                                      | 38              | 16                                   | 22                                       |         |
| Urban                                      | 62              | 39                                   | 23                                       |         |
| Education                                  |                 |                                      |  | 0.01    |
| Not Educated                               | 3               | 0                                    | 3  |         |
| Primary School                             | 8               | 1                                    | 7  |         |
| High School                                | 17              | 9                                    | 8  |         |
| Any Higher Education                       | 72              | 45                                   | 27                                       |         |
| Severity of acne (as perceived by patient) |                 |                                      |  |         |
| Mild                                       | 13              | 5                                    | 8  |         |
| Moderate                                   | 49              | 22                                   | 27                                       |         |
| Severe                                     | 38              | 28                                   | 10                                       |         |
| First approach to acne treatment           |                 |                                      |  |         |
| Friends/Family                             | 38              | 18                                   | 20                                       |         |
| Social Media                               | 32              | 32                                   | 0  |         |
| Doctor                                     | 24              | 3                                    | 21                                       |         |
| Other                                      | 6               | 2                                    | 4  |         |

\* Since n=100, the numbers are equivalent to percentages

**Table 2: Details of the social media platform(s) used, treatment modalities followed and treatment response obtained.**

| Parameter   | Number (% , out of 55) |
|---|------------------------|
| Social media platform used                            |                        |
| Facebook  | 43 (78%)               |
| Instagram   | 47 (85%)               |
| YouTube   | 55 (100%)              |
| Twitter   | 23 (41%)               |
| Others  | 17 (31%)               |
| Treatment recommendation followed as per social media |                        |
| Home remedies   | 29 (53%)               |
| Over the counter products                             | 38 (69%)               |
| Dietary changes                                       | 22 (40%)               |
| Physical activity and exercises                       | 23 (41%)               |
| Supplements   | 8 (15%)                |
| Response to acne                                      |                        |
| No response   | 28 (51%)               |
| Minimal response                                      | 21 (38%)               |
| Significant response                                  | 6 (11%)                |

## DISCUSSION

Social media has become an inseparable part of modern life. Seeking health related information from social media platforms has become commoner than ever. Dependence on social media enhances social well-being and self-management, leading to patient empowerment.<sup>[5]</sup> This study highlights that the treatment of acne is influenced by patients using social media tools. 55% of the study subjects relied on social media, which impacts medical management of the ailment. No difference was seen between male and female patients in terms of social media usage. Although previous studies have found greater reliance on internet for healthcare related information in women, we did not find the same in our study population.<sup>[6,7]</sup> The study did not find any difference across the age groups studied in relying upon social media, reflecting upon how adolescents, youngsters and the middle-aged are all hooked up by social media usage. Education level has a direct correlation with seeking help from social media.

Treatment seeking pattern is different among patients using social media and believing it completely. Many patients are biased by social media influencers and inclined towards suggestions and home remedies or over the counter skin care products that can adversely affect their skin health. In this study, most of the patients resorted to OTC products (69%) and home remedies (53%). Dietary changes were brought about by 41% patients. Various acne diets and inclusion and omission of dietary components seem important, while they do not align with standard dermatology guidelines. Influencer marketing heavily promotes usage of glutathione while the role is still controversial as per many studies. Teenagers and their parents need to be aware of such availability of misinformation that could delay seeking proper acne care and visit to a dermatologist. Early treatment of acne is warranted by many to prevent scarring and hyperpigmentation. One limitation of the study is that recruitment of study subjects was done only amongst patients seeking medical consultation. There is a bigger set of patients who keep trying various internet derived knowledge to treat their acne. Some of them are

obsessed with scientific names of ingredients and their percentages and often become difficult patients for their dermatologist, as they need to address their misinformation also. Almost every social media platform is flooded with information of acne treatment to prevention but the authenticity of such freely available literature is questionable.

## CONCLUSION

Social media is influencing treatment seeking pattern of patients especially teenagers and adolescents. However, an increasing number of college-graduated adults are also falling prey to Internet treatments. These patients could be better benefited by seeking the correct medical guidance, which is delayed due to such behaviour. The knowledge attitude behaviour cycle needs to be corrected.

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