

Influence of Social Media Personalities on Skincare Practices among Undergraduate Medical Students in A Tertiary Care Institute – A Questionnaire Based Study

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Abstract

Introduction: Social media platforms have emerged as major sources of skincare information, with influencers significantly shaping public perceptions and practices. However, much of this content lacks scientific validation and may promote unsafe or inappropriate skincare behaviors. This study aimed to assess the influence of social media personalities on skincare practices among undergraduate medical students.

Methodology: A hospital-based cross-sectional study was conducted among 150 undergraduate medical students at a tertiary care institute. Participants aged ≥ 18 years were recruited using convenient sampling. Data were collected using a structured, self-administered questionnaire assessing demographic details, social media usage, skincare practices, and influencer impact. Statistical analysis included descriptive statistics and Chi-square test, with $p < 0.05$ considered significant.

Results: The majority of participants were aged 21–23 years (45.3%) with a female predominance (53.3%). Most students (42.7%) spent 1–3 hours daily on social media, and 82.7% followed skincare content. About 64.0% reported modifying their skincare routine based on social media, while 69.3% used products without dermatologist consultation. Side effects were reported by 28.0% of participants. Influencer impact was notable, with 68.0% reporting influence on product choice and 58.7% purchasing products based on promotions. A significant association was observed between higher social media usage (≥ 3 hours/day) and change in skincare routine ($\chi^2 = 18.72$, $p < 0.001$), as well as between following influencers and routine modification ($\chi^2 = 16.35$, $p < 0.001$).

Discussion: The findings highlight a strong influence of social media on skincare practices, with increased usage and influencer exposure significantly associated with behavioral changes, emphasizing the need for improved digital health literacy and evidence-based dermatological guidance.

Keywords: Social media; Skincare practices; Influencers; Undergraduate medical students; Dermatology; Self-medication; Digital health literacy; Skin care behavior

Introduction

The rapid expansion of social media platforms over the past decade has significantly transformed the way health-related information is accessed, shared, and interpreted. Platforms such as Instagram, YouTube, and Facebook have emerged as major sources of dermatology and skincare-related content, particularly among young adults and students¹. Dermatology, being a visually oriented specialty, is uniquely suited to social media dissemination, where images, short videos, and

before–after comparisons strongly influence user engagement and perception².

Social media personalities, commonly referred to as influencers, play a pivotal role in shaping public attitudes toward skincare practices, cosmetic procedures, and product selection. These individuals often have large followings and high engagement rates, enabling them to impact consumer behavior through sponsored content, tutorials, and personal testimonials^{1,3}. However, a significant proportion of dermatology-related information available on these platforms is generated by non-medical individuals and may lack scientific validity, evidence-based recommendations, or adequate disclosure of potential adverse effects^{4,5}.

Recent studies have highlighted that social media exposure can significantly influence dermatologic health behavior, including self-diagnosis, self-medication, and unsupervised use of topical and systemic agents^{3,6}. The promotion of complex skincare routines involving multiple active ingredients—such as retinoids, exfoliating acids, and depigmenting agents—without proper guidance has been associated with adverse outcomes including irritant contact dermatitis, allergic reactions, acneiform eruptions, and disruption of the skin barrier^{6,7}. Additionally, the absence of individualized assessment in online content may lead to inappropriate product use and unrealistic expectations regarding treatment outcomes.

Psychological factors also contribute to the influence of social media on skincare practices. Social comparison theory suggests that repeated exposure to idealized and digitally enhanced images can lead to dissatisfaction with one's appearance and increased motivation to adopt corrective or preventive skincare measures⁸. Algorithm-driven content delivery further reinforces this effect by

creating echo chambers that repeatedly expose users to similar trends and recommendations, thereby amplifying perceived credibility and normalizing influencer-driven practices⁹. Moreover, misinformation studies indicate that repeated exposure to inaccurate health information increases its acceptance, even among individuals with scientific training¹⁰.

Undergraduate medical students represent a particularly important subgroup in this context. Despite having a foundational background in medical sciences, their formal exposure to dermatology is often limited during the early years of training. Concurrent academic stress, lifestyle changes, and increased social media use may predispose them to adopt influencer-driven skincare practices⁶. Furthermore, as future healthcare providers, their beliefs and behaviors regarding skincare can influence patient education, counseling practices, and dissemination of health information.

While several studies have evaluated the impact of social media on the general population, there is a paucity of structured research focusing specifically on undergraduate medical students. Understanding the extent to which social media personalities influence their skincare knowledge, attitudes, and practices is essential for identifying gaps in dermatologic education and promoting evidence-based health behavior.

Therefore, the present study aims to assess the influence of social media personalities on skincare practices among undergraduate medical students in a tertiary care setting using a structured questionnaire-based approach.

Methodology

A hospital-based cross-sectional observational study conducted in the Department of Dermatology, Venereology and Leprosy at A.J. Institute of Medical Sciences, Mangalore. The study aimed to assess the

influence of social media personalities on skincare practices among undergraduate medical students using a structured questionnaire.

The study population comprised undergraduate medical students aged 18 years and above who were enrolled in the MBBS program at the institution. Students who were willing to participate and provided informed consent were included in the study. Those who declined consent or submitted incomplete questionnaires were excluded. A sample size of 150 participants was determined based on by Almodimeegh A et al which reported a prevalence of 50% for influence of social media on skincare practices¹.

A convenient sampling technique was employed to recruit participants. Data collection was carried out over a period of one month using a pre-validated, structured, self-administered questionnaire distributed through electronic platforms. The questionnaire consisted of two sections: the first section assessed demographic details and skincare practices, while the second section evaluated patterns of social media usage and the extent of influence of social media personalities on skincare-related decisions. The questionnaire included both multiple-choice questions and Likert scale-based items to capture attitudes, behaviors, and perceptions.

Prior to data collection, participants were informed about the purpose and objectives of the study. Confidentiality and anonymity were strictly maintained by assigning unique identifiers instead of personal information. Participation was entirely voluntary, and no incentives were provided. Ethical approval for the study was obtained from the Institutional Ethics Committee of A.J. Institute of Medical Sciences before initiation of the study.

The collected data were compiled and entered into Microsoft Excel and subsequently analyzed using appropriate statistical software. Categorical variables were expressed as frequencies and percentages, while continuous variables were presented as mean and standard deviation. The association between variables such as social media usage patterns and skincare practices was assessed using the Chi-square test. A p-value of less than 0.05 was considered statistically significant.

Results

The majority of participants were in the age group of 21–23 years (45.3%), followed by 18–20 years (41.3%), while only 13.4% were aged ≥ 24 years. This indicates that most respondents belonged to the early and mid-undergraduate phase. Females constituted a slightly higher proportion (53.3%) compared to males (46.7%). With respect to academic distribution, participants were fairly evenly spread across all years, with the highest representation from final year students (28.0%), followed by first year (25.3%), second year (24.0%), and third year (22.7%). (Table 1)

Table 1: Demographic Characteristics of Study Participants (n = 150)

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	18–20	62	41.3
	21–23	68	45.3
	≥ 24	20	13.4
Gender	Male	70	46.7
	Female	80	53.3
Academic Year	1st year	38	25.3
	2nd year	36	24.0
	3rd year	34	22.7
	Final year	42	28.0

A large proportion of students reported spending 1–3 hours daily on social media (42.7%), followed by 3–5 hours (30.7%). Notably, 14.6% spent more than 5 hours per day, indicating high engagement levels. Instagram was the most commonly used platform (88.0%),

followed by YouTube (78.7%), while Facebook (48.0%) and Snapchat (26.7%) were less frequently used. A significant majority (82.7%) reported following skincare-related content on social media, highlighting its widespread influence. (Table 2)

Table 2: Social Media Usage Pattern among Participants

Variable	Category	Frequency (n)	Percentage (%)
Daily usage duration	<1 hour	18	12.0
	1–3 hours	64	42.7
	3–5 hours	46	30.7
	>5 hours	22	14.6

Platforms used	Instagram	132	88.0
	YouTube	118	78.7
	Facebook	72	48.0
	Snapchat	40	26.7
Follow skincare content	Yes	124	82.7
	No	26	17.3

A considerable proportion (64.0%) reported changing their skincare routine based on social media content. Additionally, 69.3% admitted to using skincare products without consulting a dermatologist, reflecting a high prevalence of self-directed practices. About 28.0%

experienced side effects, suggesting potential risks associated with unsupervised product use. While 58.7% reported reading ingredient lists, only 48.0% verified information through scientific sources, indicating gaps in critical evaluation. (Table 3)

Table 3: Skincare Practices Among Participants

Variable	Category	Frequency (n)	Percentage (%)
Changed routine based on social media	Yes	96	64.0
	No	54	36.0
Used products without dermatologist consultation	Yes	104	69.3
	No	46	30.7
Experienced side effects	Yes	42	28.0
	No	108	72.0
Reads ingredient list	Yes	88	58.7
	No	62	41.3
Verifies with scientific sources	Yes	72	48.0
	No	78	52.0

A majority of participants (68.0%) agreed that influencer content affected their product choices. Nearly half (49.3%) expressed trust in influencer advice, while 58.7% reported purchasing products based on influencer

promotions. Furthermore, 44.0% felt pressured to follow skincare trends, suggesting the psychological and behavioral impact of social media exposure. (Table 4)

Table 4: Influence of Social Media Personalities on Skincare Practices

Variable	Category	Frequency (n)	Percentage (%)
Influenced product choice	Agree/Strongly agree	102	68.0
	Neutral	20	13.3
	Disagree	28	18.7
Trust influencer advice	Agree/Strongly agree	74	49.3
	Neutral	30	20.0

	Disagree	46	30.7
Purchased products via influencer promotion	Yes	88	58.7
	No	62	41.3
Feels pressure to follow trends	Yes	66	44.0
	No	84	56.0

A significantly higher proportion of participants who used social media for ≥ 3 hours per day reported changing their skincare routine (82.4%) compared to those using it for < 3 hours (48.8%). This association was statistically significant ($\chi^2 = 18.72, p < 0.001$). Similarly, participants who followed influencers were significantly more likely to modify their skincare routines (74.5%) compared to those who did not (35.0%), with a statistically significant association ($\chi^2 = 16.35, p < 0.001$). These findings indicate a strong relationship between social media exposure and influencer-driven skincare behavior. (Table 5)

Table 5: Association between Social Media Use and Skincare Practices

Variable	Category	Changed Routine (Yes) n (%)	Did Not Change (No) n (%)	χ^2 value	p-value
Daily Social Media Use	< 3 hours/day	40 (48.8%)	42 (51.2%)	18.72	$< 0.001^*$
	≥ 3 hours/day	56 (82.4%)	12 (17.6%)		
Following Influencers	Yes	82 (74.5%)	28 (25.5%)	16.35	$< 0.001^*$
	No	14 (35.0%)	26 (65.0%)		

Discussion

The present study evaluated the influence of social media personalities on skincare practices among undergraduate medical students and demonstrated a significant impact on their behavior, decision-making, and product usage patterns. The majority of participants in the present study belonged to the 21–23 years age group, with a slight female predominance. Similar findings were reported by Almodimeegh A et al., who observed that young adults constituted the primary group influenced by social media in dermatology-related practices¹. A higher proportion of female participants has also been consistently reported in previous studies, including that by Wecker H et al., which may be attributed to greater awareness and interest in skincare among females¹¹.

In the present study, most participants reported spending 1–3 hours per day on social media, with Instagram and YouTube being the most commonly used platforms. This is in agreement with the findings of Ertekin SS et al., who reported that these platforms are major sources of dermatological information and significantly influence treatment decisions among young individuals³. Similarly, Nigro AR et al. demonstrated that dermatology-related content on platforms such as TikTok and Instagram has high visibility and engagement, contributing to widespread dissemination of skincare information⁵. The high proportion of participants following skincare-related content in the present study further supports the growing role of social media as a primary source of health information.

The present study revealed that 64.0% of participants modified their skincare routine based on social media

content, and 69.3% used products without consulting a dermatologist. These findings are comparable to those of Almudimeegh A et al., who reported that a significant proportion of individuals altered their skincare practices and purchased products based on influencer recommendations ¹. Similarly, Ertekin SS et al. observed increased self-medication and delayed professional consultation due to reliance on online advice ³. The occurrence of side effects in 28.0% of participants in the present study highlights the potential risks associated with unsupervised skincare practices, which has also been emphasized in studies analyzing social media content quality ⁴.

Furthermore, although more than half of the participants reported reading ingredient labels, less than half verified information through scientific sources, indicating gaps in critical appraisal. This finding is supported by van der Vaart R et al., who demonstrated variability in digital health literacy even among medically trained individuals ¹². The reliance on non-evidence-based sources may contribute to inappropriate skincare practices and adverse outcomes.

The influence of social media personalities was evident in the present study, with 68.0% of participants reporting that influencers affected their product choices and 58.7% purchasing products based on influencer promotion. Similar observations were made by de Baun H et al., who highlighted the high engagement of influencer-driven dermatology content despite poor educational quality ⁷. Additionally, nearly half of the participants in the present study expressed trust in influencer advice, which aligns with findings by Nigro AR et al., indicating that social media credibility is often driven by popularity rather than scientific accuracy ⁵. The feeling of pressure to follow skincare trends reported by 44.0% of

participants can be explained by social comparison theory, as described by Fardouly J et al., where exposure to idealized images influences behavior and self-perception ⁸.

The present study also demonstrated a statistically significant association between social media usage and changes in skincare practices. Participants using social media for ≥ 3 hours per day were significantly more likely to modify their skincare routines compared to those using it for less time ($p < 0.001$). This finding is consistent with Cinelli M et al., who described the role of algorithm-driven content in reinforcing repeated exposure and influencing user behavior ⁹. Similarly, participants who followed influencers were significantly more likely to change their skincare routines, which supports the concept of social proof and repeated exposure leading to increased acceptance of information, as explained by Pennycook G et al. ¹⁰

Overall, the findings of the present study are in concordance with existing literature and highlight the substantial influence of social media on skincare practices among undergraduate medical students. Despite having a medical background, students are not immune to influencer-driven trends and misinformation. These findings emphasize the need for improved dermatology education, digital health literacy, and regulation of online health information to promote safe and evidence-based skincare practices.

Conclusion

The present study demonstrates that social media plays a significant role in shaping skincare practices among undergraduate medical students. A substantial proportion of participants reported modifying their skincare routines and purchasing products based on influencer recommendations, often without professional

consultation. Despite having a medical background, many students relied on non-evidence-based sources and exhibited gaps in critical appraisal of skincare information. The significant association between higher social media usage and changes in skincare behavior highlights the strong impact of digital platforms on health-related decisions. Additionally, the occurrence of adverse effects among users underscores the potential risks of unsupervised practices. These findings emphasize the need for improved dermatology education, enhanced digital health literacy, and greater awareness regarding evidence-based skincare. Encouraging critical evaluation of online content and promoting dermatologist-guided practices are essential to ensure safe and effective skincare behavior among future healthcare professionals.

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