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Original Research Article

Influence of social media on usage of skincare products among medical students- An observational study

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ABSTRACT

Background: Skin care supports the skin integrity and enhances its appearance. Increased desire to make oneself more presentable have led to increase in usage of skin care products. This is an era of social media and artificial intelligence where the information is few fingertips away. Social media has undoubtedly helped millions of people, but there is a possibility that the users might be in danger if they follow trends that are popular. Limited knowledge regarding the product may cause skin damage.

Materials and Methods: This was a single centered questionnaire based cross-sectional study among medical students. Data was entered in MS Excel and descriptive statistics were done.

Results: 314 undergraduate medical students made up the study group. In this study 64 (20.4%) students were using sunscreen, 75 (23.9%) were using moisturiser, 12 (3.8%) were using facewash, 14 (4.5%) were using serums, 56 (17.8%) were using 2 or more products and 93 (23.6%) were not using any products. 105 (33.4%) purchased skin care products on advise of family / friends / colleagues, followed by social media 72 (22.9%), while 65 (20.7%) obtained information from TV advertisements, 64 (20.4%) from dermatologists and 8 (2.5%) from pharmacists.

Conclusion: There is significant influence of social media among medical students. Medical students play an important role in dispersing information and hence they should have appropriate knowledge about healthy skin care practices.

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1. Introduction

Practices that support preserving the skin's structural and functional integrity are referred to as skin care.¹ Our origins, way of life, age, and health are all reflected in our skin. Skin surface features, pigmentation, tone, and evenness are all indicators of the health of our skin.² Theoretically, skin care products are categorized into three regulatory groups: cosmetics, medical devices, and medicinal products. Cosmetic products are designed for use on human body for beautifying and promoting attractiveness and appearance; for these reasons, cosmetics are in high demand in every

country.³ To keep our skin healthy, the cosmetic and pharmaceutical industries provide a wide range of skin care products that clean, soothe, restore, reinforce, protect, and treat our skin.² Social media are interactive technologies that allow people to express themselves virtually through groups and networks by creating, sharing, and collecting content, ideas, and interests.^{4,5} Social media is being used as a platform for marketing skin care products with the help of influencers and celebrities. Many skincare products are being promoted in social media with exaggerated claims. It may be problematic to follow skincare trends without the proper knowledge of its impact on an individual's own skin.⁶

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2. Aim of the Study

To identify various skin care products usage and influence of social media among medical students.

3. Materials and Methods

It is a single centered questionnaire based cross sectional study among medical students. A self structured questionnaire with all the variables and relevant questions was developed and circulated among medical students. Both open-ended and closed-ended questions were included in the questionnaire design. Participants answered questions about their demographics, whether they used cosmetic products or not, what kinds of products they used, how long they used them for, indications, and any adverse effects they had encountered while using cosmetics. Inquiries were also made concerning the sources from which they got the recommendations for the cosmetics they were applying.

3.1. Statistical methodology

Data was entered in MS Excel and descriptive statistics done. Frequencies, percentages, bar diagrams and pie charts were used for the analyzation of the data.

4. Results

314 undergraduate medical students made up the study group; 117 (37.3%) were male and 197 (62.7%) were female. Participants ranged in age from 17 to 23. 235 (74.8%) students were from urban localities and 79 (25.2%) were from rural areas.

4.1. Routine skin care products

All students were using routine skin care products like soap, shampoo and hair oil, out of them 43 (13.7%) were using products for specific indication [Table 1].

4.2. Cosmetic products

In this study 64 (20.4%) students were using sunscreen, 75 (23.9%) were using moisturiser, 12 (3.8%) were using facewash, 14 (4.5%) were using serums, 56 (17.8%) were using 2 or more products and 93 (23.6%) were not using any products [Figure 1].

Out of 56 (17.8%) students who were using 2 or more products:- 41 students were using sunscreen, 42 were using moisturiser, 20 were using facewash and 19 students were using serum.

Table 2 revealed the cosmetic products and their indication, period of usage, composition and adverse effects.

4.3. Makeup products

141 (44.9%) students were using makeup products. The below Figure 2 revealed that the widely used makeup

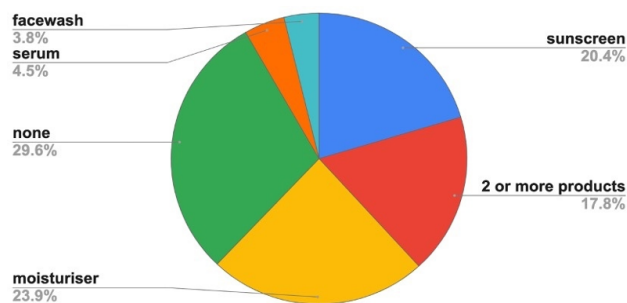


Figure 1: Cosmetic products analysis

products were lipstick 99 (70.2%), compact 58 (41.1%), foundation 50 (35.5%), eye makeup 49 (34.8%), blush 24 (34.8%) and concealer 22 (15.6%) [Figure 2].

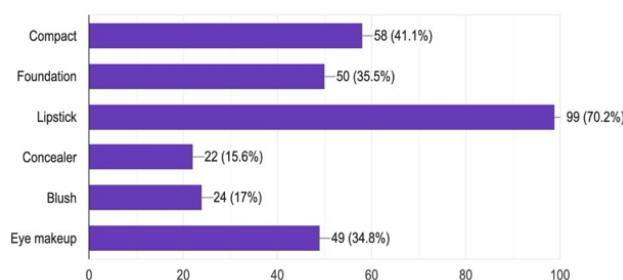


Figure 2: Makeup products analysis

4.4. Adverse effects

2 out of 64 students who were using sunscreen got acne. 9 out of 141 students who were using makeup products experienced adverse effects. The most common adverse effect reported was eye pigmentation seen in 3 students (33.3%) followed by acne and dryness of skin in 2 students (22.2%) each respectively, while burning sensation and dark lips accounted for 1 (11.1%) of adverse reactions respectively.

4.5. Chemical peels and lasers

A total of 27 (8.6%) students had undergone chemical peel procedure. Out of which 5 (18.5%) had experienced adverse effects, in which majority were erythema and burning sensation (3 (60%)) followed by pigmentation 2 (40%). 26 (8.3%) students took laser treatment, out of which 2 students got acne.

4.6. Source for purchasing skincare products

33.4% students opined that they purchased skin care products on advise of family / friends / colleagues, followed by social media (Instagram, Facebook, you tube, influencers) 22.9%, while 20.7% obtained information from

Table 1: Routine skin care products for specific indication.

Product	Specific indication	Frequency n=43 (13.7%)
Soap	Acne	7 (2.2%)
	Dark spots	5 (1.6%)
	Skin brightening	4 (1.3%)
	Moisturising effect	8 (2.5%)
Shampoo	Dandruff	15 (4.8)
Hair oil	Hair growth	4 (1.3%)

Table 2: Cosmetic products and their indication, period of usage, composition and adverse effects

Cosmetic Product	Indication	Period of usage		Composition	Adverse effects
		More than 1 yr	Less than 1 yr		
Sunscreen	Photoprotection	37.1%	62.9%	Physical and chemical sunscreen -80% Chemical sunscreen only -20%	Acne -2 (0.6%)
Moisturiser	Hydration and prevention of dryness	36.8%	63.2%	Cetyl alcohol, hyaluronic acid, ceramides	nil
Serums	Increase in complexion	15.2%	84.8%	Niacinamide, vitamin c, salicylic acid	nil
Face wash	Acne	43.8%	56.3%	Salicylic acid, glycerin, niacinamide	nil

TV advertisements, 20.4% from dermatologists and 2.5% from pharmacists [Figure 3].

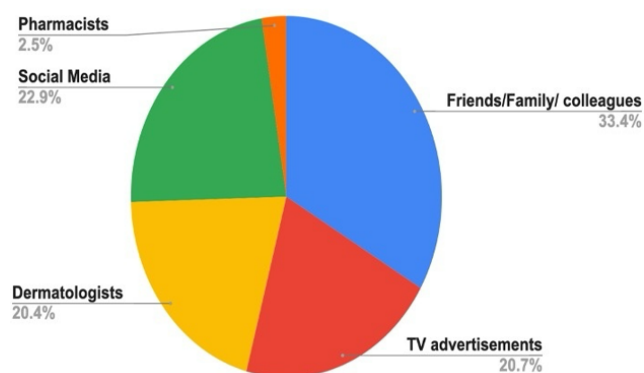


Figure 3: Source for purchasing skin care products

5. Discussion

Skin care supports the skin integrity and enhances its appearance. Gentle washing, moisturising, and photoprotection are all part of a basic skin care routine that can be used to maintain clean, balanced, protected, and irritation-free skin.¹ Social media is a network that makes it possible to communicate information with millions of users worldwide, and it is clear that social media plays a significant role in skincare nowadays. The purpose of the current study was to evaluate the usage of skincare products by the medical students and the impact of social media while choosing these products.

Photoprotection is regarded as an efficient method for protection of skin against cancers and photoaging. In this

study 20.4% of students were using sunscreen regularly whereas 38.1% students were using sunscreen in a study by P. Rodriguez et al.⁷ Out of all the students using sunscreen only 2 students had acne as adverse effect due to sunscreen whereas in a study by Nives Pustišek et al subjective (sensory) irritation, contact urticaria, cosmetic intolerance syndrome, or status cosmeticus are most frequently reported adverse reactions to sunscreens.⁸ Most of the moisturisers contain both humectants like hyaluronic acid, urea, and allantoin, and occlusives, including petrolatum, mineral oil and lanolin. 23.9% were using only moisturiser on a daily basis. No adverse reactions were mentioned related to moisturisers in this study. According to a research report by Lucca JM et al, there is a wide range of adverse responses associated with cosmetics, including urticaria, irritation, pigmentary changes, photosensitization, damage to the hair and nails, and more. About 85% of the individuals stopped using the product that made their conditions better.⁹ 4.5% of students were using serums with contents such as niacinamide, Vitamin C, salicylic acid for concerns such as hyperpigmentation, oily skin etc. Selecting the proper skin care ingredient for each skin type is crucial because using the wrong preparations might irritate the skin. Regarding make up use, 44.9% participants were using makeup products out of which 9 people faced adverse reactions. Eye pigmentation was seen in 3 students, 2 students complained of acne, and 2 had dryness of skin. According to a Malaysian study, 29% of participants had experienced unfavourable cosmetic occurrences, with ecema being the most common,¹⁰ whereas in a study by Arebu et al, allergic reactions were most common.¹¹ Students should be more knowledgeable about the advantages of using skin care

products and how to use them optimally, as they are a frequent age group that is influenced by social media and advertisements to try out different kinds of skin care products. In the present study selection of skincare products was influenced by friends/ family in majority students (33.4%). This was contrary with a study by Desai KM et al and Anute et al. where majority were influenced by advertisements.^{12,13} Additionally, a Kualalampur, Malaysia study found that 49.1% of the female population was impacted by advertisements for cosmetics.¹⁴ While in our study, 20.7% of the participants were influenced to purchase skincare products by advertisements on television. In our study about 22.9% stated that there is influence of social media on buyer's decision compared to 28% in a study by Sudipto Mangal et al.¹⁵ 20.4% respondents were using products advised by dermatologists and 2.5% were purchasing products recommended by pharmacists.

6. Conclusion

The current study found that people's perceptions regarding the utility of cosmetics have evolved significantly. Applying cosmetics was once considered a luxury, but now trends are changed and people are using skin care products regularly. We found that they are more influenced by family, friend's recommendations followed by social media. It was contrary to other studies where TV advertisements was the main influencing source in purchase of skin care products. Family and friends seek advice from medical students for skin care products frequently. Hence a basic knowledge is essential for medical students regarding these products. Since social media may not depict the complete picture, it will be better if professional advice is taken or scientific reviews are referred.

7. Source of Funding

None.

8. Conflict of Interest

None.

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