



**ORIGINAL ARTICLE**

# The Perception and Impact of Social Media Advertisements on the Use of Cosmetic Products and Undergoing Cosmetic Procedures among Egyptian Females

Noha M. Abdelsalam<sup>1\*</sup>, Ibrahim Fouda<sup>2</sup>, Hanaa A Nofal<sup>1</sup>

<sup>1</sup>Department of Community Medicine, Faculty of Medicine, Zagazig University, Zagazig, Egypt

<sup>2</sup>Dermatology, Venereology and Andrology Department, Damietta Faculty of Medicine, Al-Azhar University, Egypt

**\*Corresponding Author:**

*Noha M. Abdelsalam*

**E-mail:**

[Nohaabdelsalam49@gmail.com](mailto:Nohaabdelsalam49@gmail.com)

Submit Date 06-07-2023

Revise Date 17-07-2023

Accept Date 25-07-2023



## ABSTRACT

**Background:** Popular social media platforms have a substantial influence on current skincare practices, the use of cosmetics, and the decision to undergo cosmetic procedures. This study attempts to evaluate the perception, attitude, and influence of social media advertisements on the use of cosmetic products as well as deciding whether to undergo aesthetic procedures among Egyptian adult females.

**Methods:** A cross-sectional study was performed in the interval from March to May 2023 among 384 Egyptian adult females over the age of 16 using an online survey distributed via social media platforms. Data were collected using Arabic-constructed questionnaires.

**Results:** It was found that 81.5% of survey respondents reported their use of cosmetics. In addition, 37.0% of the female participants underwent cosmetic procedures. In contrast, 43.5% of respondents consider undergoing cosmetic procedures in the future. The most frequent cosmetic procedure was fractional laser (33.1%). Social media advertisements influenced 63.5% of female participants. Additionally, 90.0% of respondents reported following pages of cosmetic advertisements. Pages of dermatologists and cosmetic physicians were the most common pages to be followed by participating females, followed by cosmetic company pages (65.9%, 37.8%). A statistically significant association was detected between social media advertisements as well as the use of cosmetics and undergoing cosmetic procedures among participants ( $p < 0.01$ ).

**Conclusions:** This study demonstrated that social media advertisements significantly influence the use of cosmetics and procedures among Egyptian adult females.

**Keywords:** Cosmetics; Social media; Advertisements; Perception;

## INTRODUCTION

A variety of aspects of our lives have been utterly taken over by social media. It has a substantial influence on people's decisions, especially with regard to lifestyle. TikTok, Instagram, Twitter, as well as Facebook play a substantial part in an individual's selection of dermatological treatments, aesthetic procedures, cosmetics, and skincare[1].

It is not just a shopping instrument for consumers. Nevertheless, it is also a platform utilized by beauty influencers as well as healthcare professionals, such as dermatologists, to inform consumers about the purchase and usage of cosmetic products, in addition to offering guidance on various cosmetic treatments.[2, 3] It is becoming increasingly apparent that social media plays a substantial part in skincare usage.

In spite of the fact that social media has grown to help millions of its users worldwide, its drawback is that it might put people in danger as they adhere to trends. Following skincare trends without understanding their influence on one's complexion could be problematic. Skincare and cosmetics influencers considerably affect the purchasing decisions of their audience [4]. Even while the risks of false information apply to many medical specialties and fields, dermatology stands out because a significant portion of the general population uses the internet to research any given procedure, medical procedure, or disease [5]. An investigation of Instagram hashtags revealed that people without formal dermatology expertise constituted a greater proportion of the most popular dermato-related posts [6].

Currently, approximately 40.0% of healthcare consumers utilize social media to fulfill their healthcare information needs [7]. A social media influencer can be anyone, and there is no accreditation or verification. Social media influences as well as presence are becoming increasingly crucial for aestheticians and dermatologists to promote their practices. In a recent survey conducted by the American Society for Dermatologic Surgery (ASDS), social media was ranked among the top three sources to be considered when purchasing skin care products and sixth when deciding whether to undergo a cosmetic procedure. Furthermore, 41% of patients and clients follow their current or potential provider on Instagram, and 43% of appointments scheduling decisions are influenced by their social media presence [2]. Social media influencing marketing has a positive impact on consumer behavior, so it must be taken into consideration. Many efforts are needed to make this influence in a positive useful manner. Financial issue may

be the strong motivation for this marketing, irrespective of its beneficial effect, so this research was conducted to assess the perception, attitude, and social media advertising influence on the use of cosmetic products and the decision to undergo an aesthetic procedure among Egyptian adult females.

## METHODS

### *Study design & setting:*

The current cross-sectional study was performed during the interval from March to May 2023 through an online survey.

### *Study subjects:*

A survey was distributed among a heterogeneous group of Egyptian adult females above 16 years old on social media platforms.

A sample size of 384 was determined utilizing 0.05 degrees of freedom, CI of 95%. as well as the percentage of respondents stated that social media influenced their decision to contemplate cosmetic procedures in a 2019 study by Arab et al. (48.5%) [8].

Inclusion criteria included Egyptian adult females above 16 years old and having accounts on social media platforms.

Exclusion criteria included non-Egyptians, females below 16 years old, dermatologists, makeup artists, beauty influencers, bloggers, and workers in cosmetics companies.

A pilot study with 38 adult females was done to develop and test the questionnaire with the most suitable as well as comprehensible terms, in addition to evaluating the responses to the various questionnaire items. The reliability and validity of the questionnaire were assessed as well. Pilot sample was not included in the study sample.

### *Data collection tool:*

The online structured questionnaire used for collecting Arabic-language data included the parts as follows:

Part I: An introduction on the purpose of the study, voluntary nature of participation, declarations of confidentiality, inclusion and exclusion criteria.

Part II: Socio-demographic data, including age, education, occupation, and marital status.

Part III: Questions on social media use: the most used applications, frequency of social media use, etc.

Part IV: Questions on the use of cosmetic products and cosmetic procedures.

Part V: Questions to assess perception, attitude, and social media advertising impact on the use of cosmetic products and the decision to undergo anaesthetic procedure.

Dermatology and public health experts reviewed the questionnaire to ensure the validity of the survey. The questionnaire's validity and reliability were tested. The internal consistency value of the questionnaire was 0.85, and the content validity was 0.91, with participation taking around 6-7 min.

### STATISTICAL ANALYSIS

The 15<sup>th</sup> version of the SPSS software was utilized for data analysis. Qualitative data were expressed as percentages as well as frequencies, whereas quantitative data were expressed as mean as well as standard deviation. The chi-square test was utilized to compare descriptive data. Binary logistic regression was utilized to detect factors affecting the use of cosmetics and undergoing cosmetic procedures among participants.

### RESULTS

This study was conducted on 384 Egyptian females, Table (1) shows that their

mean age was 30.7 years old, ranging from 16-48 years old. Fifty-seven (57.0%) percent of females lived in urban areas, and nearly half (55.5%) graduated from university. Half of the participant females were employees, 83.6% had sufficient income, and 84.6% were of moderate social class. Nearly half of the respondents were married, and 40.9% were singles.

Table (2) demonstrates that 81.5% of survey respondents reported using cosmetics. Seventeen (17.0%) of them have always used cosmetics. Moreover, 65% illustrated that they use cosmetics for facial care; only 26.0% use cosmetics for treatment. About 37.0% of participant females have undergone cosmetic procedures. In contrast, 43.5% of them consider undergoing cosmetic procedures in the future. The most frequent cosmetic procedure was fractional laser (33.1%). Specialists performed 81% of cosmetic procedures and were psychologically effective in 42.7% of them. Regarding factors affecting cosmetic product selection and decision to undergo cosmetic procedures, 51.4% of participants reported that they consult medical specialists, while 26.5% of them reported that social media affect their cosmetic product selection and the decision to undergo cosmetic procedures.

Table (3) represents the frequency of social media use among participants; the most utilized social media site was Facebook (59.6%). Ninety-seven (97.0%) of studied females reported that they use social media daily and nearly half of them spend 2-5 hours daily on social media, while 30.7% of them spend more than 5 hours daily. Advertisements on social media influenced 63.5% of participant females. 90.0% of respondents reported following pages of cosmetic advertisements, while only 9.9% reported that they never did. Pages of dermatologists and cosmetic physicians were

the most common pages to be followed by participating females, followed by cosmetic companies' pages, and then pages for makeup artists (65.9%, 37.8%, and 19.8%). On asking participants about factors that influenced them to choose a dermatologist, cosmetic physician, and cosmetic center, review from others was the common influencing factor (44.8%) of participants, followed by their presence on social media (36.2%).

Figures (1, 2) depict a statistically significant association between social media

advertisements and the use of cosmetics and undergoing cosmetic procedures among participants.

Table (4) clarified predictors affecting cosmetic products and cosmetic procedures use (urban residence, daily use of social media and uses of social media  $\geq 2$  hours /day, singles, employee females, and mean females' age).

**Table 1:** Socioeconomic characteristics of participant female (N=384)

Characteristics	No. (%)
<b>Age</b>	
X $\pm$ SD	30.66 $\pm$ 9.14
Range	(16-48)
<b>Residence</b>	
Urban	220 (57.3)
Rural	164 (42.7)
<b>Education</b>	
Primary	8 (2.1)
Secondary	50 (13.1)
University	213 (55.5)
Postgraduate	113 (29.4)
<b>Occupation</b>	
Student	106 (27.6)
Housewife	88 (22.9)
Employee	190 (49.5)
<b>Marital status</b>	
Single	157 (40.9)
Married	187 (48.7)
Divorced	32 (8.3)
Widow	8 (2.1)
<b>Having children</b>	215 (56.0)
<b>Income</b>	
Insufficient	39 (10.2)
Sufficient	321 (83.6)
More than Sufficient	21 (6.3)
<b>Social class</b>	
Low	26 (6.8)
Moderate	325 (84.6)
High	33 (8.6)

**Table 2:** Cosmetics use and cosmetic procedures among studied participants (N=384)

Questions	No. (%)
<b>Do you use any cosmetics for skin and hair?</b>	
Yes	313(81.5)
<b>Frequency of cosmetics' use</b>	
Always	65 (16.9)
Often	87 (22.7)
Sometimes	99 (25.8)
Rarely	133 (34.6)
<b>Causes of cosmetics' use</b>	
For facial care	250 (65.1)
For medical condition	10 (26.0)
Psychological impact	12 (3.1)
<b>You ever undergone any cosmetic procedures?</b>	
Yes	142 (36.9)
No	75 (19.5)
Yes in the future	167 (43.5)
<b>Type of cosmetic procedures (No.=142)</b>	
Chemical peeling	12 (8.5)
Cold peeling	8 (5.6)
Microneedling	24 (16.9)
Botulinium toxin A	13 (9.2)
Fractional laser	47 (33.1)
*Others	38 (26.8)
<b>Cosmetic procedure done by (N=142)</b>	
Specialists	115 (81.0)
<b>Factors affecting cosmetic product selection, decision to undergo cosmetic procedures (N=384)</b>	
Medical specialists' consultation	184 (51.4)
Social media	95 (26.5)
Friends	55 (15.4)
Family	24 (6.7)

\*Others include hydra facial, filler, liposuction, lip beautification, mesotherapy

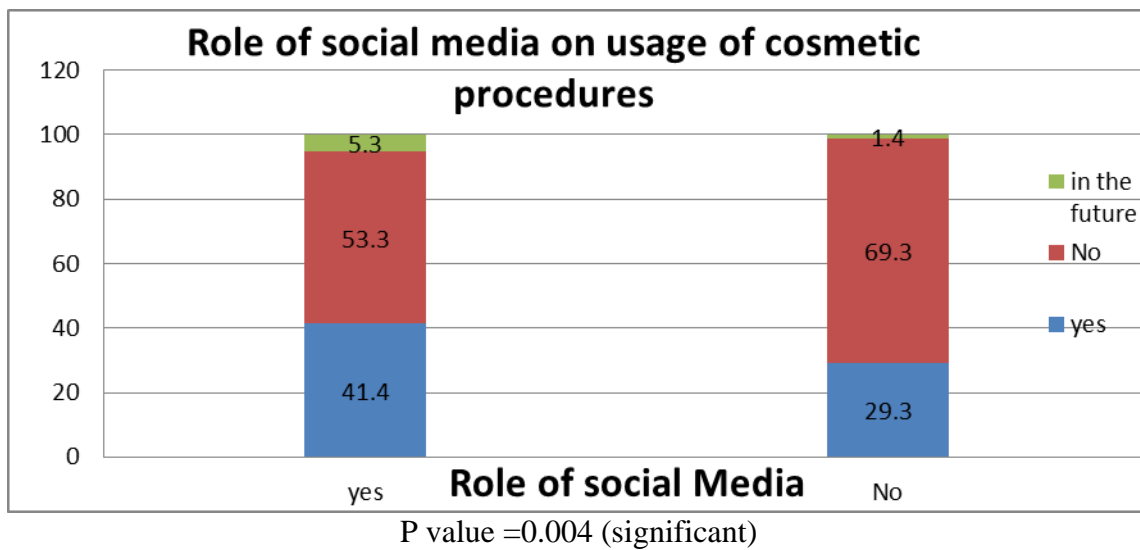
**Table 3:** Social media use and effect of social media advertisements on attitude and perception towards cosmetics use and undergoing cosmetic procedures. (N=384)

Social media use	No. (%)
<b>Social networking sites on which you have a personal account</b>	
Facebook	374 (97.4)
Whatsapp	346 (90.1)
Instagram	281 (73.2)
Telegram	254 (66.1)
Tik Tok	126 (32.8)
Twitter	100 (26.0)
<b>The most used social networking sites?</b>	
Facebook	229 (59.6)
Whatsapp	165 (43.0)
Instagram	40 (10.4)
Tik Tok	14 (3.6)
Telegram	8 (2.1)
Twitter	6 (1.6)
<b>Social media use on a daily basis</b>	374 (97.4)
<b>Frequency of social media use</b>	
2-5 hours per day	189 (49.2)
more than 5 hours per day	118 (30.7)
Less than two hours per day	77 (20.1)
X±SD	8.3±1.6
<b>Advertisement on social media influenced you</b>	
Yes	244 (63.5)
<b>Do you follow pages of cosmetic advertisement</b>	
Always	40 (10.4)
usually	84 (21.9)
Sometimes	161 (41.9)
Rarely	61 (15.9)
Never	38 (9.9)
<b>Type of pages you follow</b>	
Medical specialists (dermatologist and aestheticians)	253 (65.9)
Cosmetic companies	145 (37.8)
Makeup artists	76 (19.8)
Bloggers	66 (17.2)
Influencers	59 (15.4)
<b>Factors influenced you to choose dermatologist, cosmetic physician and cosmetic center</b>	
Review from others	172(44.8)
Famous on social media	139 (36.2)
Scientific degree, qualifications	73(19.0)

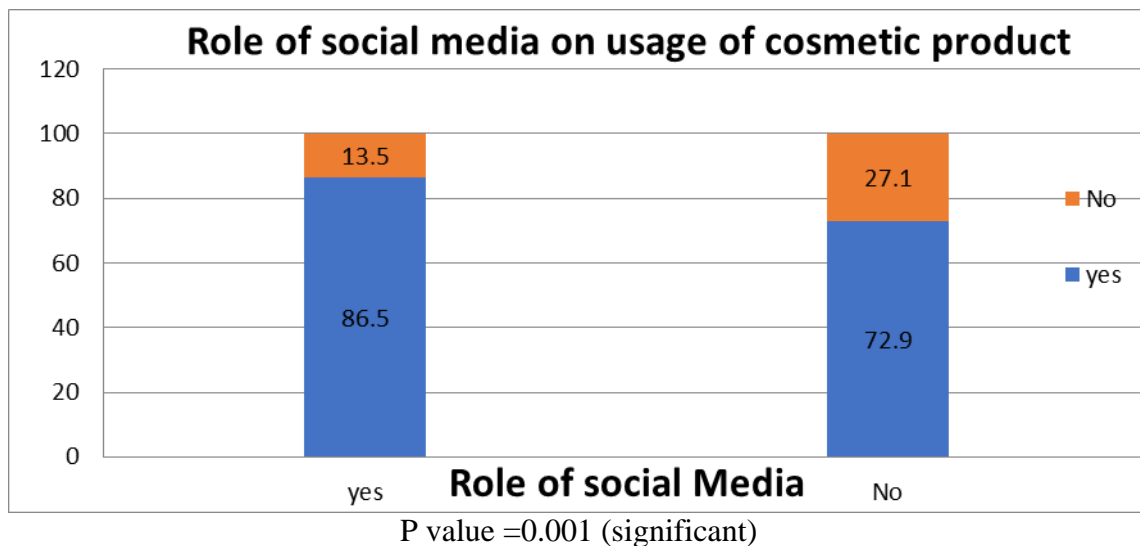


**Table 4:** Binary logistic regression to detect factors affecting use of cosmetics and undergoing cosmetic procedures among studied participants

	B	S.E.	Sig.	Odds ratio	95% C.I.	
					Lower	Upper
Uses of social media ≥ 2 h /day	.837	.296	.005*	2.310	1.293	4.127
Residence (urban )	.651	.241	.007*	1.918	1.196	3.076
Daily use of social media	2.172	.300	.000*	8.772	4.871	15.795
Age < 26 Y	.682	.445	.04*	1.978	1.880	4.73
Occupation (employee)	.967	.236	.000*	2.630	1.656	4.176
Marital status (single)	.555	.241	.021*	1.742	1.086	2.794



**Figure (1):** Role of social media on usage of cosmetic procedures



**Figure (2):** Role of social media on usage of cosmetic product

**DISCUSSION**

Social media is a popular source people turn to research for cosmetics, beauty products, and cosmetic procedures. This research

assessed the perception, attitude, and impact of social media advertisement on the use of cosmetics and the decision to undergo aesthetic procedures among a group of

Egyptian females.

The primary finding of this study was that 63.5% of female participants reported being influenced by social media advertising for using cosmetics and undergoing aesthetic procedures (Table 3). This result exceeded the findings of Arab et al.[8], in which 48.5% of respondents reported that social media influenced their decision to undertake a cosmetic procedure. In contrast, it was fewer figures than that of respondents in Malik and Kaur's [9] study who were influenced by celebrity endorsement for buying cosmetic products (83.7%). The difference may be due to differences in sample size and participant demographics between the two studies. This study also found a statistically significant association between social media advertisements and the use of cosmetics and undergoing cosmetic procedures among participants (Figures 1, 2). This finding aligns with Malik and Kaur's [9] study that social media marketing positively impacts the buying behaviors of a consumer for cosmetic products. These results are consistent with Arab et al.[8], who found that social media cosmetic treatment advertising may have influenced the contemplation of such treatments. Furthermore, Arif et al. [10] pointed out that the popularity of a cosmetic procedure is evidently associated with social media, as evidenced by their survey outcomes. People are motivated by practitioners' posts concerning risk-free procedures and free/discount offers, which stimulate their confidence to be subjected to these treatments. In studying factors predicting the use of cosmetics and undergoing cosmetic procedures in this study, daily use of social media and uses of social media  $\geq 2$  hours /day were significant factors (Table 4). This result agrees with Walker et al. [11], who claimed that frequent viewing of female images who underwent cosmetic procedures impacted as a source of stress for the desire of young females for cosmetic intervention, particularly if they spent numerous hours on social media, followed many accounts, despite they were more dissatisfied about their appearance.

This research showed that 90.0% of respondents reported that they followed the

cosmetic advertising pages, pages of dermatologists and cosmetic physicians. This finding is relatively similar to the results of the Arab et al.[8] study, as 51.4% of their study participants reported that they follow plastic surgeons on social media. Assad Hammadi and El-Shereef [12] findings also showed that many Saudi female university students follow social media accounts related to cosmetic surgeries. In addition, Joshi et al.[1] mentioned in their review study that a recent ASDS survey revealed that 41.0% of patients follow their potential or current providers on Instagram.

Following cosmetic company pages, pages for makeup artists, bloggers, and beauty influencers were also reported by participants of this study, but in low percent compared to dermatologist and aestheticians followers. This finding may be due to the study participants' high education level, making them prefer specialist advice and explanations.

On asking participants about factors that influenced them to choose their sources (a dermatologist, cosmetic physician, and cosmetic center), reviewing from others was the common influencing factor in 44.8% of participants, followed by their presence on social media (36.2%) (Table 3). This result is comparable to that of Boen and Jerdan [2], as 43.0% of appointment scheduling decisions were influenced by the provider's social media profile.

This research revealed that 81.5% of respondents utilize cosmetics. This percentage was close to that found by Elemam et al. [13], which was 87.5% among a cohort of female college students. In this study, the frequency of cosmetic use was higher among 16- to 26-year-old females; this was one of the significant factors influencing cosmetic use and the decision to undergo aesthetic procedures (Table 4). About 37.0% of participant females in this study have undergone cosmetic procedures. In contrast, 43.5% of them consider undergoing cosmetic procedures in the future. This result was higher than the results of Arab et al. [8], in undergoing cosmetic procedures in the future (22.4%), whereas cosmetic procedures prevalence in respondents reached 17.5%. It



was greater than the percentage reported by Al-Saiari and Bakarman in 2015 [14], drawing attention to the growing demand for cosmetic procedures over time, with around 30,000 procedures being carried out in 2016. The cosmetic industry is heavily influenced by 'popular culture' and social media. According to the International Society of Aesthetic Plastic Surgery (ISAPS) in 2018, there was an increase in non surgical procedures of 11.6% and 5.1%. Increase in all cosmetic procedures of [15].

This study showed that specialists performed 81% of cosmetic procedures, and 51.4% of participants reported that they consulted medical specialists regarding cosmetic product selection and the decision to undergo cosmetic procedures. This finding reflects raised awareness among studied females, as most were highly educated. This result contradicts the findings of Manav et al. [16], as most cosmetic procedures were performed by aestheticians (13.9%) in hairdressers as well as skincare centers (5.9%) due to socio-economic factors. Nonetheless, when complications arise, patients seek treatment from dermatologists. In addition, 53.5% of participants in a Nepalese study underwent cosmetic procedures performed by dermatologists [17].

This study's most frequent cosmetic procedure was fractional laser (33.1%). Followed by micro-needling (16.9%), then peeling (chemical and cold) (14.1%), then Botox (9.2%) (Table 2). Furthermore, this finding is relatively comparable to Aladwan et al. [13], considering that percent may differ from one study to another due to demographic configuration differences.

### CONCLUSIONS

This study demonstrated that social media advertisements significantly influence the use of cosmetics and procedures among Egyptian adult females.

Social media influencing marketing has a positive impact on consumer behavior, so it must be taken into consideration. Many efforts are needed to make this influence in a positive useful manner. Financial issue may be the strong motivation for this marketing irrespective of its beneficial effect, so recommendations are to increase rules,

regulations and awareness of customers to consult medical specialists. Also, medical specialists (dermatologists and cosmetic physicians) should have training to deal with social media and increase their presence to convey information properly for beneficial effect rather than financial benefits. More future researches in this era are also encouraged.

### Study limitations:

This study was launched through social media platforms, however, reaching to some extent to a heterogeneous population, but we had used a convenience sampling technique; therefore, the results of the study can be projected only on a population of similar characteristics.

**Ethics Approval:** The study protocol was approved by the Institutional Review Board (IRB) of Faculty of Medicine, Zagazig University (reference no.10468). The necessary official permission was obtained. An informed consent was also obtained from all the participants.

**Conflict of Interest:** None

**Financial Disclosures:** None

**Acknowledgements:** I would like to thank all participants for their participation, also Dr. Noha Hesham for their technical help.

### REFERENCES

1. **Joshi M, Korrapati NH, Reji F, Hasan A**. The impact of social media on skin care: A narrative review. *Lviv clinical bulletin* 2022; 1-2:85-96. 10.25040/lkv2022.01-02.085.
2. **Boen M, Jerdan K**. Growing impact of social media in aesthetics: Review and debate. *Clin Dermatol* 2022; 40(1):45-48. <https://doi.org/10.1016/j.clindermatol.2021.08.011>.
3. **Chan WS, Leung AY**. Use of social network sites for communication among health professionals: Systematic review. *J Med Internet Res* 2018;20(3):e117. <https://doi.org/10.2196/jmir.8382>.
4. **Henriques M, Patnaik D**. Social media and its effects on beauty. *Beauty - cosmetic science, Cultural issues and creative developments* [Internet]. 2021 May 12; Available from: <http://dx.doi.org/10.5772/intechopen.93322>.
5. **Militello M, Yang RA, Anderson JB, Szeto MD, Presley CL, Laughter MR**. Social media and ethical challenges for the dermatologist. *Curr Dermatol Rep* 2021; 10(4):12-7. <https://doi.org/10.1007/s13671-021-00340-7>.
6. **Park J, Christman M, Linos E, Rieder E**. Dermatology on instagram: An analysis of hashtags. *J Drugs Dermatol* 2018; 17 (4):482-4.
7. **Albeshri M, Alharithy R, Altalhab**

- S,Alluhayyan OB, Farhat AM.**The influence of modern social media on dermatologist selection by patients. *Cureus*. 2020;12(12):e11822. <https://doi.org/10.7759/cureus.11822>.
8. **Arab K, Barasain O, Altaweel A,Alkhayyal J, Alshiha L, Barasain Ret al.** Influence of social media on the decision to undergo a cosmetic procedure. *Plast Reconstr Surg Glob Open* 2019;7(8):e2333. doi: 10.1097/GOX.0000000000002333.
  9. **Malik S, KaurS.** Impact of social media marketing on consumer buying behaviour towards cosmetic products.*specialusis ugdymas / special education* 2022; 1 (43):5897-910.
  10. **Arif M, Nazeer J, NaseemZ.** Role of social media for the adoption of cosmetic procedures among young Pakistani women. *JDSS* 2022; 3(2):996-1006. <https://doi.org/10.47205/jdss>.
  11. **WalkerCE, Krumhuber EG, Dayan S, Furnham A.** *Effects of social media use on desire for cosmetic surgery among young women.* *Curr Psychol* 2021; 40 (7): 3355-64.
  12. **Assad HH, El-Shereef E.** Study of knowledge, attitude and practices of plastic surgery among females students at faculty of education, Taif University, Saudi Arabia. *Am J Public Heal Res* 2017;5:63-9. Available at <http://pubs.sciepub.com/ajphr/5/3/3/index.html>.
  13. **El emam H, Samy Bauomy E, El-Gilany AH,Taref NN.**Prevalence, determinants and adverse events of cosmetics use among university female students: A study in Egypt. *EJHC* 2022;13(1):1376-86. doi: 10.21608/ejhc.2022.226560
  14. **Al-Saiari AA, Bakarman MA.** Experiences and attitude among Saudi female university students towards cosmetic surgery. *J Taibah Univ Med Sci* 2015;10:427-31. Available at <https://linkinghub.elsevier.com/retrieve/pii/S1658361215001043>.
  15. **ISAPS.** Global Survey Results. 2018. Available online: <https://www.isaps.org/wp-content/uploads/2020/10/ISAPS-Global-Survey-Results-2018-1.pdf> (accessed on 15 July 2020).
  16. **Manav V, İlhan D, Bal Avcı E,Polat S, Erdil D, Baş Set al.** Perceptions and knowledge toward cosmetic procedures: A cross-sectional survey. *Turkderm-Turk Arch Dermatol Venereol*2022; 56:51-7.
  17. **Thapa DP.** Awareness of cosmetic dermatology procedures among health workers in a tertiary care hospital. *Indian Dermatol Online J* 2019;10:139-43.

### Citation:

Abdelsalam, N., Fouda, I., Nofal, H. The perception and impact of social media advertisements on the use of cosmetic products and undergoing cosmetic procedures among Egyptian females. *Zagazig University Medical Journal*, 2023; (2407-2416): -. doi: 10.21608/zumj.2023.220450.2816