

Does social media influence physician selection among those considering aesthetic operations or procedures? A cross-sectional descriptive study

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ABSTRACT

Aims: Social media is a common source of health information and a factor in provider choice. This study examined how social media use relates to physician selection and to the tendency to undergo aesthetic procedures in adults and how these associations vary with age, educational level, and use habits.

Methods: A total of 1030 volunteers aged 18 years and older were enrolled between February 2020 and August 2021 by convenience sampling. Data were collected face-to-face and online with a researcher-developed 30-item questionnaire whose content was reviewed by three experts (no formal psychometric validation was performed). Non-parametric tests (Chi-square, Mann-Whitney U, and Kruskal-Wallis H) and effect sizes were used; significance was $p < 0.05$.

Results: Overall, 61.0% were women, 95.6% used social media, and 40.6% were considering a procedure. The importance attributed to social media in physician selection increased with daily use duration ($p < 0.001$), and those using social media for 1 hour or more daily reported a greater desire for a procedure ($p < 0.001$). This importance did not differ by age, although participants aged 56 years and older reported less desire ($p < 0.001$). The most important criterion was personal references, followed by physician experience, while the physician's gender was considered the least important. Prior communication with a physician via social media was associated with having undergone a procedure ($p < 0.001$).

Conclusion: Social media use was associated with physician selection and with the desire for aesthetic procedures, most clearly among heavy users, with no difference across age groups; associations were weak, and no causal inference can be drawn. Used ethically, social media may aid patient information and outreach.

Keywords: Social media, surgery; plastic, patient preference, esthetics, health communication

INTRODUCTION

Recently, the rapid spread of social media platforms has fundamentally changed the way individuals access information.^{1,2} Platforms such as Instagram and Facebook are no longer merely tools for social interaction; they have become sources consulted for obtaining health information, sharing experiences, and selecting service providers.¹⁻⁴ This transformation in the field of health has led patients to add digital sources to the traditional referral mechanisms (recommendations from acquaintances and physician referrals) they use when selecting physicians and health-care institutions.²⁻⁴

One of the areas in which this trend is most evident is aesthetic plastic surgery.^{5,6} Because aesthetic interventions are largely elective, the patient's decision-making process is heavily influenced by factors such as visual content, before-and-after photographs, patient experiences, and the online

visibility of physicians.⁵⁻⁸ It has been reported that, with the rise of visually oriented platforms-particularly Instagram-awareness of, demand for, and expectations regarding aesthetic procedures are shaped by social media.^{5,7-10} While social media offers physicians a powerful tool for service promotion and patient information, for patients it has become a new evaluation criterion considered during physician selection.^{5,9,10} More recent population surveys report the same pattern: in a cross-sectional study of 2249 respondents, those who considered themselves influenced by social media were more likely to be interested in cosmetic interventions, and surgeons' advertisements affected the decision to seek a consultation in roughly a third of participants.¹¹

It is increasingly emphasized that individuals considering an aesthetic procedure research physicians on social media, examine their posts, and are influenced by this content

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before making a decision.^{5,6,12} However, it has not been sufficiently clarified which demographic groups (such as age and educational level) and usage habits (including daily use duration and physician follow-up) exhibit a more pronounced effect.¹³⁻¹⁶ Recent work has begun to address this directly, quantifying the factors the public weighs when choosing a plastic surgeon and identifying the demographic subgroups whose engagement with plastic surgery content is greatest.^{17,18} In Türkiye, the number of studies that directly address the role of social media in physician selection and aesthetic procedure tendency is also limited: national work has largely examined changing perceptions of aesthetic procedures, attitudes towards aesthetic surgery among women, and the influence of media on the decision to undergo surgery, rather than the choice of physician itself.¹⁹⁻²¹ Addressing this gap is important both for physicians to correctly design their patient information and communication strategies and to develop an online presence that complies with ethical principles.

This study aimed to examine the relationship between social media use and both physician selection and the tendency to undergo aesthetic procedures in adults, as well as the association of this relationship with variables such as age, educational level, and social media use habits.

METHODS

Ethics

This study was conducted with the approval of the Non-interventional Clinical Researches Ethics Committee at Zonguldak Bülent Ecevit University (Date: 05.02.2020, Decision No: 2). All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki. Participants were informed about the purpose of the study; they were told that participation was voluntary, that their data would be kept confidential, and that they could withdraw from the study at any time. Participants who completed the questionnaire face-to-face gave verbal informed consent, and those who completed it online gave electronic informed consent; the information text appeared at the beginning of the form, and only individuals who gave consent proceeded to the questionnaire.

Study Design and Setting

This was a cross-sectional, descriptive study designed to determine the relationship between social media use and both physician selection and the tendency to undergo aesthetic procedures in adults, along with the demographic and behavioral factors associated with this relationship. Data were collected from volunteers present on the campus and at the training and research hospital of Zonguldak Bülent Ecevit University Faculty of Medicine; the sampling frame therefore consisted largely of university students, academic and administrative staff, and their relatives. The study was reported in accordance with the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines.

Time, Population, and Sample

The data were collected between February 2020 and August 2021. Participants were reached using convenience sampling. A total of 1031 responses were received from volunteers aged 18 years and older. One response was excluded because it contained internally inconsistent answers, leaving a final study sample of 1030 participants, to whom all sample-size statements and analyses in this article refer; individuals younger than 18 years and those who completed the questionnaire incompletely were also excluded. The questionnaire was administered to participants both face-to-face and online (a form prepared on the Qualtrics platform [Qualtrics International Inc., Provo, UT, USA], the link to which was shared through social media/messaging applications). However, the distribution of participants by data-collection method (face-to-face/online) was not recorded separately.

Data Collection Tool

The researchers developed the questionnaire used in the study after reviewing the current literature on the subject. In the first stage, a pool of 50 items was prepared; this pool was submitted for evaluation to three specialists experienced in plastic, reconstructive, and aesthetic surgery. In line with the expert opinions, items that overlapped in meaning, had low clarity, or were not directly related to the subject were removed, and the form was finalized with the number of items reduced to 30. Content validity was thus assessed qualitatively by expert review. No formal psychometric validation (e.g., construct-validity, internal-consistency, or test-retest reliability analysis) was performed; the questionnaire is therefore a researcher-developed instrument with expert-reviewed content rather than a formally validated scale.

The questionnaire consisted of four parts: (1) the demographic characteristics of the participants (age, gender, marital status, educational level); (2) social media use habits (platforms used and daily use duration); (3) the ranking of the importance of seven criteria considered in physician selection; and (4) 19 items rated on a 5-point frequency scale (1=never, 2=rarely, 3=sometimes, 4=often, 5=always) assessing the role of social media in aesthetic procedures and physician selection. Age was recorded as a categorical item with five predefined response options (18-25, 26-31, 32-40, 41-55, and 56 years and over). These cut-off points were not derived from the study data; they were adopted a priori from the age categories used in the Turkish adaptation study of the Social Media Usage Scale in the Workplace,²² so that the age structure of the sample would be described with categories already used in Turkish social media research.

In this study, the “importance rank given to social media in physician selection” was operationally defined by the ranking item in which participants rated the relative importance they attributed to social media among seven physician-selection criteria from 1 (most important) to 7 (least important); a lower rank value indicates greater importance attributed to social media. The “desire to undergo an aesthetic procedure” was defined by participants' yes/no response to the question, “Are you considering having any aesthetic procedure?” and “daily

social media use duration” was defined by a four-category item (less than 1 hour, 1-3 hours, 4-6 hours, 7 hours and over).

Statistical Analysis

The data were evaluated using IBM SPSS Statistics 25.0 software (IBM Corp., Armonk, NY, USA). Because all study variables were categorical or ordinal, non-parametric tests were used throughout the analyses. Descriptive statistics were presented as numbers and percentages. Associations between categorical variables were examined with the Chi-square test, and effect size was assessed with Cramér's V coefficient (the ϕ coefficient in 2x2 tables); pairwise comparisons of column proportions in Chi-square tables were performed with the Bonferroni-adjusted z test. The Mann-Whitney U test was used to compare two independent groups, and the effect size was calculated as $r=z/\sqrt{N}$. Ordinal variables, including the importance rank given to social media in physician selection and the 5-point frequency items, were compared across more than two independent groups with the Kruskal-Wallis H test with tie correction; for significant results, pairwise comparisons were carried out with the Bonferroni-adjusted Dunn test, and the effect size was reported as epsilon-squared (ϵ^2). For the importance-rank variable, Chi-square contingency tables are additionally presented in order to display the full distribution of ranks, but between-group inference for this variable is based on the Kruskal-Wallis test, because a Chi-square test applied to a seven-category ordinal variable is sensitive to differences in dispersion as well as to differences in location. No correction for multiple testing was applied across analyses. The level of statistical significance was accepted as two-sided $p < 0.05$.

RESULTS

Descriptive Findings

Of the 1030 individuals who participated in the study, 61.0% ($n=628$) were women and 39.0% ($n=402$) were men; 50.5% of the participants were single and 49.5% were married. By age group, the largest group was the 26-31 age range, at 27.9% ($n=287$), followed by the 18-25 age group at 23.1% ($n=238$). In terms of educational level, the majority of participants were university (56.9%; $n=586$) and postgraduate (25.5%; $n=263$) graduates; 15.4% ($n=159$) had high-school education, 2.0% ($n=21$) had primary education, and one participant (0.1%) had never attended school. Most participants (95.6%; $n=985$) actively used at least one social media platform, and the most frequently used platform was Instagram. Daily social media use was in the 1-3-hour range for 58.0% of participants ($n=597$), and 36.6% ($n=377$) reported following at least one physician on social media.

A total of 21.3% ($n=219$) of participants had undergone at least one aesthetic procedure previously, whereas 40.6% ($n=418$) reported considering an aesthetic procedure. The most frequently requested or wondered-about procedures were, in order, rhinoplasty, botulinum toxin application, and filler application. **Table 1** presents the demographic characteristics and social media use habits of the participants, while **Table 2** presents the distribution of responses to the 19 Likert-scale

Table 1. Demographic characteristics and social media use habits of participants ($n=1030$)

Characteristic	n (%)
Gender	
Female	628 (61.0)
Male	402 (39.0)
Marital status	
Single	520 (50.5)
Married	510 (49.5)
Age group (years)	
18-25	238 (23.1)
26-31	287 (27.9)
32-40	204 (19.8)
41-55	183 (17.8)
56 and over	118 (11.5)
Educational level	
No formal schooling	1 (0.1)
Primary education	21 (2.0)
High school/equivalent	159 (15.4)
University	586 (56.9)
Postgraduate	263 (25.5)
Social media use	
Yes	985 (95.6)
No	45 (4.4)
Daily social media use duration	
Less than 1 hour	196 (19.0)
1-3 hours	597 (58.0)
4-6 hours	196 (19.0)
7 hours and over	41 (4.0)
Following a physician on social media	
Yes	377 (36.6)
No	653 (63.4)
Previously undergone an aesthetic procedure^a	
Yes	219 (21.3)
No	810 (78.7)
Considering an aesthetic procedure	
Yes	418 (40.6)
No	612 (59.4)
Previous aesthetic consultation via social media^a	
Yes	151 (14.7)
No	878 (85.3)

^aFor these two variables, the valid sample size was $n=1029$. In the analyses by educational level, the single participant who reported no formal schooling was combined with the primary-education group, giving four categories

items on the role of social media in aesthetic procedures and physician selection.

Physician Selection Criteria

Participants were asked to rank the seven criteria they considered in physician selection in order of importance (1: most important; 7: least important); the ranking distribution is presented for the 1030 participants. According to the responses, the most important criterion was personal

Table 2. Distribution of responses to the 19 Likert-scale items concerning social media, physician selection, and the social environment (study sample n=1030; item-level counts from the survey platform report, see footnote)

Item	Never	Rarely	Sometimes	Often	Always
Do posts by people on social media after aesthetic procedures and increases in their follower/like counts encourage you to undergo an aesthetic procedure?	445 (43.2)	212 (20.6)	236 (22.9)	100 (9.7)	38 (3.7)
Do you think that posts on social media influence aesthetic procedure trends?	63 (6.1)	77 (7.5)	181 (17.6)	451 (43.7)	259 (25.1)
Do you think that photos, videos, and informational content about aesthetic procedures on social media increase awareness of aesthetics?	76 (7.4)	150 (14.5)	331 (32.1)	326 (31.6)	148 (14.4)
Do you think physicians use photo editing in the images of patients who have undergone aesthetic procedures?	120 (11.6)	241 (23.4)	410 (39.8)	197 (19.1)	63 (6.1)
Is it acceptable for physicians to publish your post-procedure photos on social media?	358 (34.7)	179 (17.4)	275 (26.7)	131 (12.7)	88 (8.5)
When you see aesthetic procedures you were previously unaware of on social media, does it arouse your curiosity?	252 (24.4)	231 (22.4)	310 (30.1)	170 (16.5)	68 (6.6)
Are you interested in the social media photos of someone who has had an aesthetic procedure?	382 (37.1)	265 (25.7)	248 (24.1)	96 (9.3)	40 (3.9)
Does the attractiveness of the physician who will perform your procedure in their social media photos affect your choice?	529 (51.3)	207 (20.1)	173 (16.8)	89 (8.6)	33 (3.2)
When deciding on an aesthetic procedure, do the before-and-after patient photos you see on social media affect your decision?	109 (10.6)	127 (12.3)	287 (27.8)	313 (30.4)	195 (18.9)
Does a high follower count of the physician you are considering affect your choice?	239 (23.2)	227 (22.0)	290 (28.1)	208 (20.2)	67 (6.5)
How much does the luxuriousness of the clinic shown in your chosen physician's social media posts affect your choice?	154 (14.9)	229 (22.2)	321 (31.1)	241 (23.4)	86 (8.3)
Does a celebrity's endorsement of the physician who performed their aesthetic procedure influence your choice of physician?	265 (25.7)	223 (21.6)	306 (29.7)	187 (18.1)	50 (4.8)
Do aesthetic procedure advertisements you see on social media affect whether you research the advertising physician?	223 (21.6)	251 (24.3)	319 (30.9)	175 (17.0)	63 (6.1)
How do the aesthetic procedures of those around you affect your decision to have one?	345 (33.5)	236 (22.9)	265 (25.7)	146 (14.2)	39 (3.8)
Would you want to ask questions and obtain information from someone in your circle whose aesthetic procedure you liked?	126 (12.2)	190 (18.4)	266 (25.8)	274 (26.6)	175 (17.0)
Do the negative opinions of those around you about aesthetics affect your decision to undergo a procedure?	390 (37.8)	258 (25.0)	237 (23.0)	106 (10.3)	40 (3.9)
Does thinking that those around you will judge you affect your decision to undergo a procedure?	553 (53.6)	202 (19.6)	169 (16.4)	82 (8.0)	25 (2.4)
Do the post-procedure photos shared on social media by those around you affect your decision to undergo a procedure?	367 (35.6)	254 (24.6)	252 (24.4)	132 (12.8)	26 (2.5)
Do the positive/negative post-procedure experiences of those around you affect you?	127 (12.3)	155 (15.0)	292 (28.3)	303 (29.4)	154 (14.9)

Values are n (%). Items were rated on a 5-point frequency scale (never, rarely, sometimes, often, and always). Item-level distributions were exported from the survey platform's descriptive report, which comprises all 1031 forms received, including the one form excluded for internally inconsistent answers; that form could not be removed retrospectively from these item counts. Each row therefore differs from the 1030-participant study sample by at most one response (≤ 0.1 percentage point). All inferential analyses were performed on the 1030 participants. Percentages may not sum to exactly 100.0 because of rounding.

references (friend/relative recommendation; mean rank 1.80, ranked first by 51.4% of participants), followed by physician experience (mean rank 2.11, ranked first by 37.2%). Social media/Internet and the physician's alma mater shared the same mean rank of 4.09 but were ranked first by only 4.3% and 4.1% of participants, respectively. The least important criterion was the physician's gender (mean rank 6.22). **Table 3** presents the complete ranking distribution.

Findings by Age

The distribution of the importance rank given to social media in physician selection differed significantly across age groups in the contingency analysis ($\chi^2(24)=50.787$; $p=0.001$; Cramér's $V=0.111$) (**Table 4**). However, when the rank was analyzed as an ordinal variable, the level of importance attributed to social media did not differ significantly between age groups (Kruskal-Wallis $H(4)=6.551$; $p=0.162$; $\epsilon^2=0.006$); the mean importance rank was 3.89 in the 18-25 group, 4.11 in the 26-31 group, 4.16 in the 32-40 group, 4.20 in the 41-55 group, and 4.15 in the group aged 56 years and older. The significant contingency result, therefore, reflects a difference in the shape

Table 3. Physician selection criteria: full ranking distribution (n=1030)

Criterion	Mean rank	Ranked 1 st , n (%)
Personal references (friend/relative recommendation)	1.80	529 (51.4)
Physician's experience	2.11	383 (37.2)
Social media/Internet	4.09	44 (4.3)
Physician's alma mater	4.09	42 (4.1)
Pricing	4.39	14 (1.4)
Television	5.30	8 (0.8)
Physician's gender	6.22	10 (1.0)

Lower mean rank indicates greater importance. Participants ranked seven criteria from 1 (most important) to 7 (least important). Values are presented for the 1030 participants

of the rank distribution rather than a consistent age gradient: in pairwise comparisons of column proportions, the group aged 56 years and older more often placed social media in the least important rank than the 18-25 and 26-31 groups but also more often placed it in the second rank than the 26-31 group, indicating greater polarization rather than uniformly lower importance. The desire to undergo an aesthetic procedure also differed by age group; participants aged 56 years and older had

Table 4. Importance rank given to social media in physician selection by age group (1=most important, 7=least important)

Importance rank	18-25	26-31	32-40	41-55	56+
1	10	11	9	10	4
2	29	18	20	15	21
3	56	60	34	37	20
4	52	82	46	37	19
5	68	75	64	44	27
6	18	36	24	30	16
7	5	5	7	10	11
Total	238	287	204	183	118

Cell values are observed frequencies (n). $\chi^2(4)=50.787$; $p=0.001$; Cramér's $V=0.111$. Kruskal-Wallis test of the rank as an ordinal variable: $H(4)=6.551$; $p=0.162$; $\epsilon^2=0.006$. Mean ranks: 3.89 (18-25), 4.11 (26-31), 4.16 (32-40), 4.20 (41-55), 4.15 (56+).

a lower desire to undergo a procedure ($\chi^2(4)=36.362$; $p<0.001$; Cramér's $V=0.188$). In addition, the importance attributed to the follower count of the account being followed differed significantly across age groups (Kruskal-Wallis $H(4)=12.381$; $p=0.015$; $\epsilon^2=0.012$); in pairwise comparisons, a significant difference was found only between the 18-25 age group and the group aged 56 years and older, with follower count being valued more highly in the 18-25 age group ($p=0.012$).

The importance attributed to television advertisements in physician selection also differed by age ($\chi^2(24)=67.529$; $p<0.001$), with participants aged 41 years and older assigning greater importance to television. Participants aged 40 years and younger valued physician experience more highly than did older participants ($\chi^2(24)=70.202$; $p<0.001$), and participants aged 31 years and younger were less likely to consider pricing important ($\chi^2(24)=62.557$; $p<0.001$).

Findings by Educational Level

The importance attributed to the opinions of references in physician selection differed significantly by educational level ($\chi^2(18)=40.458$; $p=0.002$; Cramér's $V=0.114$); participants with university and postgraduate education tended to attach relatively greater importance to references. Similarly, the importance attributed to the physician's alma mater ($\chi^2(18)=37.849$; $p=0.004$; Cramér's $V=0.111$) and to the physician's gender ($\chi^2(18)=38.407$; $p=0.003$; Cramér's $V=0.111$) also differed significantly by educational level; the importance attributed to the physician's alma mater was relatively higher at the postgraduate level, whereas the importance attributed to the physician's gender was relatively higher at the primary-education level.

Findings by Social Media Use Duration

The importance attributed to social media in physician selection increased significantly with daily social media use duration (Kruskal-Wallis $H(3)=21.072$; $p<0.001$; $\epsilon^2=0.020$; $\chi^2(18)=43.081$; $p=0.001$; Cramér's $V=0.118$) (Table 5); the mean importance rank fell progressively from 4.43 among participants who used social media for less than 1 hour per day to 4.07 (1-3 hours), 3.92 (4-6 hours), and 3.61 (7 hours or more), indicating a monotonic increase in the importance attributed to social media. The desire to undergo an aesthetic procedure also differed by use duration; the proportion

of those reporting that they were considering an aesthetic procedure rose progressively across use-duration groups: 23.5% (<1 hour), 42.4% (1-3 hours), 47.4% (4-6 hours), and 63.4% (≥ 7 hours) ($\chi^2(3)=37.300$; $p<0.001$; Cramér's $V=0.190$). In addition, the desire to undergo an aesthetic procedure was reported to be higher among participants who both thought that social media influenced aesthetic trends and used social media for 1 hour or more per day ($\chi^2(3)=43.773$; $p<0.001$; Cramér's $V=0.206$).

Table 5. Importance rank given to social media in physician selection by daily social media use duration (1=most important, 7=least important)

Importance rank	<1 hour	1-3 hours	4-6 hours	≥ 7 hours
1	7	28	8	1
2	16	58	19	10
3	26	125	49	7
4	36	141	45	14
5	69	146	58	5
6	32	76	13	3
7	10	23	4	1
Total	196	597	196	41

Cell values are observed frequencies (n). $\chi^2(18)=43.081$; $p=0.001$; Cramér's $V=0.118$. Kruskal-Wallis test of the rank as an ordinal variable: $H(3)=21.072$; $p<0.001$; $\epsilon^2=0.020$. Mean ranks: 4.43 (<1 hour), 4.07 (1-3 hours), 3.92 (4-6 hours), and 3.61 (≥ 7 hours).

Celebrity Endorsement and Physician Follower Count

The influence attributed to a celebrity's endorsement of the physician who had performed their aesthetic procedure differed significantly according to daily social media use duration (Kruskal-Wallis $H(3)=21.191$; $p<0.001$; $\epsilon^2=0.021$); in pairwise comparisons, participants who used social media for less than 1 hour per day were less influenced than those who used it for 1-3 hours ($p=0.014$), 4-6 hours ($p<0.001$), and 7 hours or more ($p=0.004$). Among participants who followed a physician sharing aesthetic content, both the influence of celebrity endorsement ($U=107467$; $z=4.460$; $p<0.001$; $r=0.139$) and the importance attributed to the physician's follower count ($U=102225$; $z=4.473$; $p<0.001$; $r=0.139$) were significantly greater than among those who did not follow such an account.

Prior Social Media Communication, Environmental Influence, and Undergoing a Procedure

Among participants who had previously communicated with a physician via social media about an aesthetic procedure, the rate of having undergone an aesthetic procedure was significantly higher than among those without this experience ($\chi^2(1)=77.358$; $p<0.001$; $\phi=0.274$) (Table 6). Participants who were considering an aesthetic procedure spent significantly more time on social media ($U=151364$; $z=5.624$; $p<0.001$; $r=0.175$) and were more likely to believe in the contribution of social media to awareness of aesthetics ($U=159360$; $z=7.646$; $p<0.001$; $r=0.238$). Similarly, having people in one's close social circle who had undergone aesthetic procedures and the behavior of asking one's circle questions about the procedure were significantly more pronounced in the group considering a procedure ($U=191510$; $z=4.522$; $p<0.001$; $r=0.141$ and $U=188904$; $z=4.572$; $p<0.001$; $r=0.142$, respectively).

Table 6. Undergoing an aesthetic procedure by prior aesthetic consultation via social media

Prior aesthetic consultation via social media	Did not undergo procedure	Underwent procedure	Total
No	732 (83.4)	146 (16.6)	878 (100)
Yes	78 (51.7)	73 (48.3)	151 (100)
Total	810 (78.7)	219 (21.3)	1029 (100)

Values are n (row %). $\chi^2(1)=77.358$; $p<0.001$; $\phi=0.274$. The valid sample size for this cross-tabulation was $n=1029$

DISCUSSION

In this study, the importance attributed to social media in physician selection increased with the intensity of daily social media use, and heavier use was also associated with a greater tendency to undergo aesthetic procedures. By contrast, the importance attributed to social media in physician selection did not differ significantly between age groups, although the desire to undergo a procedure was lower among participants aged 56 years and older. The finding that the rate of undergoing an aesthetic procedure was higher among individuals who reported having previously communicated with a physician via social media suggests that social media may play a role as a means of obtaining information and establishing contact during the aesthetic decision-making process.

In our study, age was not associated with the importance attributed to social media in physician selection, although two narrower age-related findings emerged: participants aged 18-25 years attached greater importance to a physician's follower count than those aged 56 years and older, and the desire to undergo an aesthetic procedure was lower in the oldest group. Our null finding for the importance rank contrasts with studies reporting that younger and middle-aged groups rely more heavily on social media as a reference source on aesthetic matters: Aldosari et al.¹³ described this pattern among young adults, and Fan et al.¹⁴ found that individuals younger than 35 years were markedly more likely to follow plastic surgeons on social media. Kinney et al.¹⁸ likewise examined which demographic groups are most engaged with plastic surgery content on social media. Montemurro et al.⁶ and Nayyar et al.¹⁵ also described a relationship between age and the influence of social media. One possible explanation for this discrepancy is that our outcome was a forced ranking of social media against six competing criteria rather than a measure of social media use or engagement itself: a group may use social media intensively and still rank it below personal references when the two are placed in direct competition. The uniformly high level of social media use in our sample (95.6%) may also have compressed between-age differences. The literature further reports that platform preference differs by age, with younger individuals gravitating towards visually oriented platforms (Instagram) while older age groups prefer platforms such as Facebook.^{5,8} The fact that the most frequently used platform in our study was Instagram is consistent with this trend.

The observation that individuals who spent 1 hour or more per day on social media were both more influenced by social media and had a higher desire to undergo an aesthetic procedure indicates a relationship between use intensity and aesthetic demand. This relationship may be interpreted as

heavy use increasing the amount of aesthetic content (before-and-after photographs, physician posts, advertisements) to which an individual is exposed, thereby feeding awareness and demand; nevertheless, the cross-sectional design of the study does not allow for the causal direction of this relationship to be determined. A comparable association between reported social media influence and interest in cosmetic intervention has been described in a large cross-sectional survey.¹¹ Most significant comparisons show small or small-to-moderate effect sizes, indicating that the findings should be interpreted cautiously, both statistically and practically.

The identification of references as the most important criterion and physician experience as the second most important criterion in physician selection shows that, despite digitalization, word-of-mouth communication and professional reputation retain their importance in the aesthetic surgery decision-making process. That the importance of references was more pronounced among individuals with university and postgraduate education is consistent with findings indicating that, as educational levels increase, individuals consult more information sources in physician selection and give greater weight to trustworthy references.¹² A recent crowdsourced survey of the American public examined how cost, social media, and surgeon training weigh against board certification and reputation in the choice of plastic surgeon, underlining that this decision remains multifactorial.¹⁷ Conversely, the physician's gender was the least important criterion overall. This contrasts with Alghonaim et al.,¹⁶ who reported a preference for male plastic surgeons among respondents in Riyadh, and suggests that the weight given to the physician's gender may be context- and culture-dependent; in our sample it also varied by educational level, being relatively higher among participants with primary education.

The procedure most frequently requested or wondered about by participants was rhinoplasty, followed by botulinum toxin and filler applications. In our study, heavy social media users were more influenced by celebrity endorsements, and both celebrity endorsements and the physician's follower count were more significant among participants who already followed a physician sharing aesthetic content; the youngest age group also placed greater importance on follower count. The literature likewise emphasizes the role of celebrities and high-reach accounts in driving aesthetic demand.^{23,24}

The findings of the study, together with the increasing role of social media in aesthetic surgery practice, also raise important ethical and privacy responsibilities. A considerable proportion of participants stated that the before-and-after patient photographs shared by physicians influenced them, emphasizing the critical need to protect patient privacy and informed consent when sharing such images. It is important, both for patient safety and for the reputation of the profession, that physicians avoid creating unrealistic expectations in their social media posts and refrain from editing images in a misleading manner (e.g., excessive retouching) and that they comply with professional and ethical principles (accurate information, realistic expectation management, and protection of patient privacy). In this context, social media

should be regarded as a double-edged tool that strengthens patient information when used correctly but that may lead to unrealistic expectations and privacy violations when used incorrectly. A recent review of the ethics of social media use by plastic surgeons reached similar conclusions, recommending that operative and before-and-after material be anonymized, that consent be specific to social media use, and that content not be edited or presented in a way that trivializes the procedure.²⁵

Limitations

This study has several limitations. First, because the data were collected at a single center and using the convenience sampling method, the generalizability of the findings to the whole population is limited. The predominance of online data collection may have introduced a selection bias favoring individuals who actively engage with social media. In addition, daily social media use duration was self-reported in broad categories rather than obtained from objective device-recorded screen-time data, which most smartphones provide for each application; self-reported use is prone to recall and estimation bias, and future studies could collect application-level screen-time data directly from participants' devices. Age was likewise collected only in predefined categories, which precluded its analysis as a continuous variable. Although the content of the questionnaire was reviewed by experts, the instrument did not undergo formal psychometric validation; in particular, construct validity was not examined and an internal-consistency (Cronbach's alpha) analysis based on the raw data was not performed. In addition, the fact that certain sociodemographic variables such as income level and occupation were not assessed meant that some factors that might shape the relationship could not be examined. Because of the cross-sectional design of the study, no cause-and-effect inference can be made for the associations identified. Furthermore, data collection spanned the coronavirus disease 2019 (COVID-19) pandemic (February 2020 to August 2021). Social media use may have been unusually elevated during this period, so the findings should be generalized to non-pandemic periods with caution; in addition, the extended collection window means that responses were not all gathered under comparable conditions, and any change in usage patterns over these 18 months could not be examined. Because the data were collected in 2020 and 2021, the findings may not fully reflect the current usage dynamics of social media platforms, short-video formats (e.g., Reels and TikTok), or newer influencer-oriented trends; short-video platforms in particular have since become a substantial channel for plastic surgery content, and the educational quality of that content has been questioned.²⁶ Moreover, because the distribution of participants by data-collection method (face-to-face/online) was not recorded, the possible effects of these two methods on the findings could not be evaluated. The online survey platform did not enforce a duplicate-response control; therefore, some respondents might have completed the questionnaire more than once. A large number of unadjusted comparisons was also performed without correction for multiple testing across analyses, which increases the risk of type I error; the weakest associations in particular should be interpreted with these limitations in

mind. Despite these limitations, the study contributes to the field with its large sample (n=1030) and by addressing a topic that has been relatively little studied in Türkiye.

CONCLUSION

The findings of this study show that social media is an important information source in individuals' selection of physicians and that the importance attributed to it increases with the intensity of daily use, being greatest among the heaviest users; it did not, however, differ significantly across age groups. While traditional criteria such as references and experience retain their importance, these findings suggest that social media may be one of the important information sources associated with physician selection and the tendency to undergo aesthetic procedures. When used correctly and ethically, social media may be a useful tool for plastic surgeons in terms of patient information and outreach. To better comprehend the subject, researchers should conduct further studies using multicenter designs and validated, reliable measurement instruments.

ETHICAL DECLARATIONS

Ethics Committee Approval

This study was conducted with the approval of the Non-interventional Clinical Researches Ethics Committee at Zonguldak Bülent Ecevit University (Date: 05.02.2020, Decision No: 2).

Informed Consent

Verbal informed consent was obtained from participants who completed the questionnaire face-to-face, and electronic informed consent was obtained from participants who completed it online. Individuals who did not give consent did not proceed to the questionnaire.

Peer Review Process

This manuscript was subject to external peer review.

Conflict of Interest

The authors declare no conflicts of interest related to this study.

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Author Contributions

Concept: AS, BA; Design: AS, BA; Control: BA; Resources: BA, AEK; Materials: AS, BA, OD, OAK, AEK; Data Collection and/or Processing: AS, BA, OD, OAK, AEK; Analysis and/or Interpretation: BA, AS; Literature Review: AS, OD, OAK; Article Writing: AS, BA; Critical Review: All Authors.

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among those considering aesthetic operations or procedures?](Zonguldak Bülent Ecevit University Faculty of Medicine, 2022; thesis advisor: Dr. Burçin Acuner), available in the National Thesis Centre of the Council of Higher Education (YÖK) of Türkiye (thesis no. 717972). The authors thank Dr. Bahar Aykaç for her contribution to the statistical analyses performed during the thesis stage of this work

REFERENCES

- Palacı H, Yazar O, Kuru İ, Gülhan Y. Doktor Google: internette sağlık bilgisi kaynakları ve sağlık okuryazarlığının önemi. Presented at: Tıp Teknolojileri Kongresi; October 27-29, 2016; Antalya, Türkiye:305-307.
- Vardarlier P, Öztürk C. Sağlık iletişiminde sosyal medya kullanımının rolü. *Sosyolojik Düşün*. 2020;5(1):1-18. doi:10.37991/sosdus.730815
- Çimen M, Çizmecı E, Deniz S, Erkoç B. Hastane tercihinde sosyal medyanın kullanımı. *J Int Soc Res*. 2015;8(41):1203-1210.
- Yılmaz E. Türkiye’de hastaların internette tıbbi enformasyon arama davranışlarının doktor-hasta iletişimine etkileri. *Galatasaray Üniv İletişim Derg*. 2014:93-108.
- Sorice SC, Li AY, Gilstrap J, Canales FL, Furnas HJ. Social media and the plastic surgery patient. *Plast Reconstr Surg*. 2017;140(5):1047-1056. doi:10.1097/PRS.00000000000003769
- Montemurro P, Porcnik A, Hedén P, Otte M. The influence of social media and easily accessible online information on the aesthetic plastic surgery practice: literature review and our own experience. *Aesthetic Plast Surg*. 2015;39(2):270-277. doi:10.1007/s00266-015-0454-3
- Dorfman RG, Vaca EE, Mahmood E, Fine NA, Schierle CF. Plastic surgery-related hashtag utilization on Instagram: implications for education and marketing. *Aesthet Surg J*. 2018;38(3):332-338. doi:10.1093/asj/sjx120
- Chopan M, Sayadi L, Clark EM, Maguire K. Plastic surgery and social media: examining perceptions. *Plast Reconstr Surg*. 2019;143(4):1259-1265. doi:10.1097/PRS.00000000000005445
- Wheeler CK, Said H, Prucz R, Rohrich RJ, Mathes DW. Social media in plastic surgery practices: emerging trends in North America. *Aesthet Surg J*. 2011;31(4):435-441. doi:10.1177/1090820X11407483
- Humphries LS, Curl B, Song DH. #SocialMedia for the academic plastic surgeon-elevating the brand. *Plast Reconstr Surg Glob Open*. 2016;4(1):e599. doi:10.1097/GOX.0000000000000597
- AlBahallal A, Alosaimi N, Bawadood M, AlHarbi A, AlSubhi F. The effect and implication of social media platforms on plastic cosmetic surgery: a cross-sectional study in Saudi Arabia from 2021 to 2022. *Aesthet Surg J Open Forum*. 2023;5:ojad002. doi:10.1093/asjof/ojad002
- Janik PE, Charytonowicz M, Szczyt M, Miszczyk J. Internet and social media as a source of information about plastic surgery: comparison between public and private sector, a 2-center study. *Plast Reconstr Surg Glob Open*. 2019;7(3):e2127. doi:10.1097/GOX.00000000000002127
- Aldosari BF, Alkarzae M, Almuhaaya R, Aldhahri R, Alrashid H. Effect of media on facial plastic surgery in Saudi Arabia. *Cureus*. 2019;11(11):e6232. doi:10.7759/cureus.6232
- Fan KL, Graziano F, Economides JM, Black CK, Song DH. The public's preferences on plastic surgery social media engagement and professionalism: demystifying the impact of demographics. *Plast Reconstr Surg*. 2019;143(2):619-630. doi:10.1097/PRS.00000000000005205
- Nayyar A, Jadi J, Garimella R, et al. Are you on the right platform? A conjoint analysis of social media preferences in aesthetic surgery patients. *Aesthet Surg J*. 2019;39(9):1019-1032. doi:10.1093/asj/sjy238
- Alghonaim Y, Arafat A, Aldeghaither S, Alsugheir S, Aldekhayel S. Social media impact on aesthetic procedures among females in Riyadh, Saudi Arabia. *Cureus*. 2019;11(10):e6008. doi:10.7759/cureus.6008
- Elmer NA, Veeramani A, Hassell N, et al. In the age of social media, how does the public choose a plastic surgeon? A crowdsourcing analysis of major deciding factors. *Plast Reconstr Surg*. 2024;153(1):194e-203e. doi:10.1097/PRS.00000000000010571
- Kinney JR, Kim E, Friedman R, et al. Which groups of plastic surgery patients are impacted by social media Use? An in-depth review of social media engagement. *Plast Reconstr Surg*. 2024;153(4):824e-837e. doi:10.1097/PRS.00000000000010641
- Türk GD, Bayrakcı S. Sosyal medya ve toplumda değişen estetik işlem yaptırma algısı. *AJIT-e Acad J Inf Technol*. 2019;10(39):118-135. doi:10.5824/ajit-e.2019.04.005
- Okgün Alcan A, Çetin S. Sosyal medya kullanımının kadınların estetik cerrahiye ilişkin tutumlarına etkisi. *Osmangazi Tıp Derg*. 2022;44(4):554-562. doi:10.20515/otd.927753
- Sonmez M, Esiyok E. The importance of media on decision to undergo cosmetic surgery operation. *Aesthetic Plast Surg*. 2022;46(6):3101-3107. doi:10.1007/s00266-022-03139-4
- Er K, Solmaz U, Yıldız E. İşyerinde sosyal medya kullanımı ölçeğinin Türkçe’ye uyarlanması. *Balıkesir Üniv Sos Bil Enst Derg*. 2020;23(44):1105-1132. doi:10.31795/baunsobed.748656
- Ward B, Ward M, Paskhover B. Google Trends as a resource for informing plastic surgery marketing decisions. *Aesthetic Plast Surg*. 2018;42(2):598-602. doi:10.1007/s00266-017-1019-4
- Devitt S, Kenkel JM. Social media: a necessary evil? *Aesthet Surg J*. 2020;40(6):700-702. doi:10.1093/asj/sjz361
- Oregi P, Cavale N, Khatib M, Rahman SM. The ethics and responsibilities of social media usage by plastic surgeons: a literature review. *Aesthetic Plast Surg*. 2024;48(3):530-542. doi:10.1007/s00266-023-03553-2
- Zargaran A, Sousi S, Zargaran D, Mosahebi A. TikTok in plastic surgery: a systematic review of its uses. *Aesthet Surg J Open Forum*. 2023;5:ojad081. doi:10.1093/asjof/ojad081