



Original Article

## Orthodontists on Social Media: Instagram's Influence

Mehmet Ali Yavan, Gökçenur Gökçe

Adıyaman University Faculty of Dentistry, Department of Orthodontics, Adıyaman, Turkey  
Marmara University Faculty of Dentistry, Department of Orthodontics, İstanbul, Turkey

Cite this article as: Yavan MA, Gökçe G. Orthodontists on Social Media: Instagram's Influence. *Turk J Orthod.* 2024; 37(1): 14-21

### Main Points

- Public Instagram accounts have more marketing purposes than private ones, as evidenced by more posts and followers.
- The numbers of followers, followings, and daily posts are higher for accounts with a company name compared with those without one.
- While the leading categories in orthodontic sharing are awareness and before-after posts, the most commonly shared treatment option is fixed mechanics.

## ABSTRACT

**Objective:** The aim of this study was to determine how orthodontists utilize the social media application Instagram for health communication.

**Methods:** Four Turkish keywords were manually searched on the Instagram platform on February 12, 2022: "orthodontist" (*ortodontist*), "orthodontics" (*ortodonti*), "orthodontic specialist" (*ortodonti uzmanı*), and "doctor of orthodontist" (*ortodonti doktoru*). A total of 195 orthodontist accounts matching the inclusion criteria were divided into two groups: public and private. Profile information analyses were performed, and the results for public and private accounts were compared. Public accounts were further divided by gender and whether they shared a company name in their profiles. Groups were compared according to post content and type of patient photo. Statistical analysis involved the Shapiro-Wilk test, an Independent Samples t-test, the Mann-Whitney U test, and chi-square and Kappa tests.

**Results:** The number of posts ( $96.06 \pm 149.30$  vs.  $195.36 \pm 248.51$ ) and followers ( $1,250.56 \pm 2,347.47$  vs.  $4,071.43 \pm 6,557.63$ ) were higher for public accounts. The number of followers ( $3,171.62 \pm 4,645.08$  vs.  $5,472.57 \pm 8,595.99$ ) and daily posts ( $0.17 \pm 0.37$  vs.  $0.23 \pm 0.43$ ) were higher for accounts with a company name. In the content analysis, posts on clear aligners ( $1.51 \pm 4.74$  vs.  $6.60 \pm 18.60$ ,  $p < 0.05$ ) and patient and company advertisements were more common ( $0.49 \pm 1.85$  vs.  $3.70 \pm 10.70$ ,  $p < 0.05$ ) for accounts with a company name.

**Conclusion:** While public orthodontist accounts commonly promote fixed mechanics as a treatment option, accounts with a company name adopt a different approach, emphasizing the sharing of information about clear aligners.

**Keywords:** Orthodontics, social media, Instagram

## Introduction

Health professionals use social media to browse or discover medical information, exchange information with colleagues, and share professional problems and clinical experiences, and some of these professionals contribute to social media with new information on a daily basis.<sup>1,2</sup> Within the healthcare sector, social media posts appear to be useful in improving the loyalty of current patients and enabling potential patients to gain insights into orthodontists' clinical practice.<sup>3</sup> Social media serves as an educational tool for patients undergoing orthodontic treatment.<sup>4</sup>

**Corresponding author:** Gökçenur Gökçe, e-mail: dtggokce@gmail.com

**Received:** May 21, 2022 **Accepted:** December 22, 2022 **Publication Date:** March 28, 2024



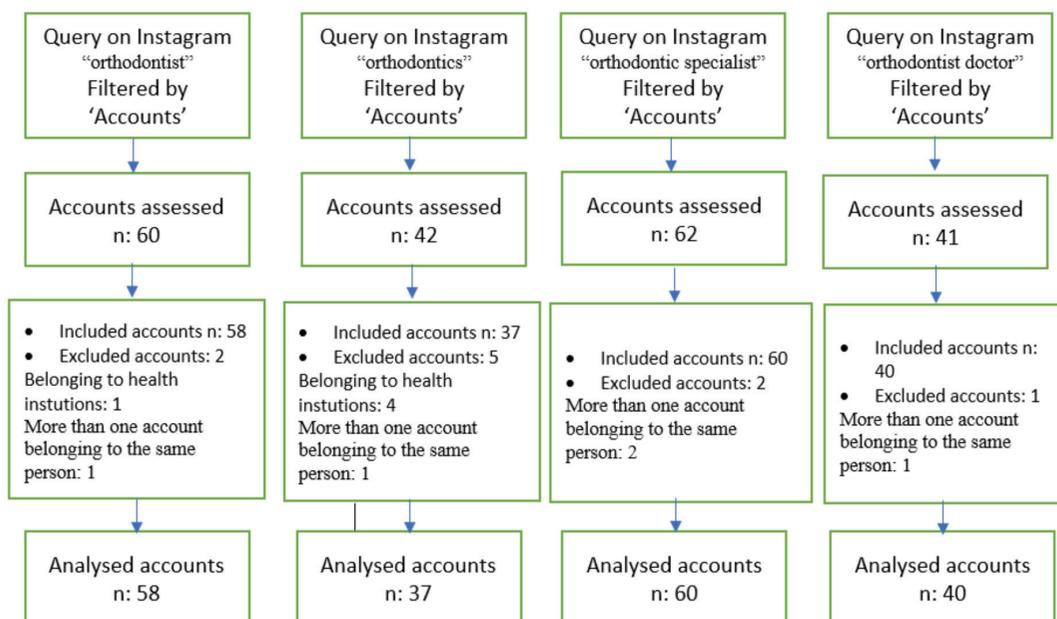
As dentistry transitions into the digital age in dentistry, an upsurge in orthodontists' use of digital technologies, including social media, is anticipated.<sup>5</sup> The increased use of social media in medicine and dentistry is accompanied by some risks and ethical problems. In particular, the concerns of specialist physicians and internet users about the quality and intelligibility of health information for the public have come to the fore.<sup>6,7</sup> It can often be difficult for patients to distinguish good, sound medical information obtained from electronic sources from circulating false information.<sup>8</sup> At the same time, the mixing of patients and physicians both online and in public areas in the social media environment may result in imprudent speculation and misunderstanding.<sup>9</sup>

Before the advent of the internet and social media, orthodontists found potential patients through social means or referrals from other colleagues. However, today, many patients find their physicians by using the internet, either through websites or social media.<sup>10</sup> Recently, the use of social media, which can be an effective marketing and communication tool for orthodontists and patients, has become widespread.<sup>11</sup> Parmar et al.<sup>12</sup> analyzed the role of social media in dentistry and reported that more than one-third of patients search for their dentists on social media. Instagram use has become quite popular among orthodontists and related companies for information sharing with colleagues and the general public.<sup>13</sup> As of May 2022, with 1.28 billion active users, Instagram was the fourth most popular social media platform, and it continues to grow rapidly in terms of users.<sup>14,15</sup> This application provides the opportunity to upload not only photos but also videos using hashtags on social networking platforms.<sup>16</sup> Instagram, which has grown so much in a short time, has attracted the attention of not only individuals but also physicians who want to communicate with their potential patients within

the framework of health communication.<sup>17</sup> Alkadhimi et al.<sup>13</sup> noted that advertisements on Instagram are common and can be used to impress "followers" with clinical and scientific claims. Nelson<sup>10</sup> also reported that social media is an effective marketing and communication tool in orthodontic practice. Instagram, which has grown so much in a short time, has attracted the attention of not only individuals but also physicians who want to communicate with their potential patients within the framework of health communication.<sup>17</sup> Therefore, the aim of the present study was to determine how Instagram, a social media application, is used by orthodontists in the context of health communication.

**METHODS**

Ethics committee approval was not required before conducting this cross-sectional study because it used only publicly available data. Four keywords were manually searched on Instagram using its "Search" filter (www.instagram.com) by one of the authors on February 12, 2022: "orthodontist" (*orthodontist*), "orthodontics" (*ortodonti*), "orthodontic specialist" (*ortodonti uzmanı*), and "doctor of orthodontics" (*ortodonti doktoru*). Among the five different categories (Top, Accounts, Audio, Tags, and Places) that appear in the search filter, only the Accounts category was searched. The search language used was Turkish. Following the search, 205 accounts were recorded in Microsoft Excel. For inclusion in the study, accounts had to belong to individuals, display a full name, and match the public orthodontist registry of the Turkish Orthodontic Society. Accounts belonging to health institutions and multiple accounts belonging to the same individual were excluded from the study. Only public accounts of orthodontists with more than one account were considered, resulting in the inclusion of a total of 195 orthodontist accounts matching these



**Figure 1.** Inclusion criteria for orthodontist accounts

criteria (Figure 1). Due to the large difference in the number of posts in public accounts and to evaluate the current posts of orthodontists, the most recent 100 posts were evaluated. Each orthodontist's contributions were assigned sequential numbers. The texts and images of the posts were recorded. Beginning with the first post in the account, the average daily post count was calculated by dividing the total number of posts by the number of days passed.

### Profile Analysis

In the analysis of profile information, the number of followers in the account profile, the number of people followed, the number of posts, gender, phone number, whether the address was written, and whether the name of any orthodontic company was written were recorded. Instagram accounts were divided into two groups: public and private, depending on whether the posts were public or not. Public account features were analyzed according to whether a company name was mentioned in their profiles.

### Post Analysis

#### Content analysis

The posts were categorized based on their content as follows:

- Personal: Posts unrelated to orthodontics, were categorized as personal.
- Awareness: Posts without any visual or content depicting patients but providing information or raising awareness about orthodontic treatment, were recorded as awareness.
- Before-after: Posts displaying treatment stages of orthodontic patients, including photographic records, were categorized as before-after.
- Fixed mechanics: Posts containing descriptions or photographs of the orthodontic patient treated with fixed mechanics were categorized as, fixed mechanics.
- Clear aligners: Posts mentioning treatment with clear aligners or featuring images of clear aligner treatment were categorized as clear aligners.
- Functional appliances: Posts containing descriptions or photographs of the orthodontic patients treated with functional appliances were recorded as functional appliances
- Orthodontic face mask: Posts including descriptions or photographs of the orthodontic patients treated with orthodontic face masks were categorized as such.
- Orthognathic surgery: Posts featuring descriptions or photographs of orthodontic patients treated with orthognathic surgery, were categorized as orthognathic surgery.

### Photo analysis

The posts shared by the orthodontists were recorded according:

- Partial patient's face: Posts showing a portion of the patient's face

- Full patient's face: Posts displaying the patient's entire face.
- Patient and company name: Posts containing both the patient's name and the name of the orthodontic company.

### Statistical Analysis

Statistical analysis was performed using SPSS 22.0 for Windows (IBM Corp, Armonk, NY, USA). Descriptive information was expressed as minimum, maximum, frequency, ratio, mean, and standard deviation. The normality of the data was evaluated with the Shapiro-Wilk test. The statistical analysis of normally distributed continuous variables was done with an Independent Samples t-test, and the evaluation of non-distributed variables was done with Mann-Whitney U test. Chi-square test was used to compare categorical variables between groups. The Kappa test was used to evaluate the intra- and interrater agreement of categorical measures, and the interclass correlation coefficient was used to evaluate continuous variables.  $p < 0.05$  was considered as statistically significant.

### RESULTS

Table 1 presents the description of profile information of orthodontic accounts and a comparison according to whether the account is private or public. The number of posts was  $96.06 \pm 149.30$  in private accounts and  $195.36 \pm 248.51$  in public accounts, and the difference between these two accounts was found to be statistically significant ( $p < 0.05$ ). Furthermore, there was a statistical difference between the two types of Instagram accounts in terms of the number of followers ( $p < 0.05$ ). 12.5% of private accounts and 71.5% of public accounts had a phone number ( $p < 0.05$ ). Additionally, address information was provided in 6.3% of private accounts and 74.3% of public accounts.

The results of content analysis of public orthodontist accounts are shown in Table 2. The number of days after the first post sharing in the accounts is  $1358.72 \pm 817.61$ . Besides, the average number of posts per day was  $0.20 \pm 0.40$ . It has been observed that the number of personal posts in account content is quite high with  $22.68 \pm 23.30$ . This was followed by before and after photos, fixed mechanics, awareness, clear aligners, functional appliances, orthognathic surgery, and face mask. Moreover,  $10.62 \pm 22.75$  of the patient photos in the accounts included partial face,  $8.01 \pm 18.80$  full face, and  $1.74 \pm 6.99$  patient, doctor and company name.

Table 3 shows a comparison of the contents of public orthodontist accounts between genders. 63.3% of males and 78.0% of females shared phone numbers on their profiles ( $p < 0.05$ ). In content analysis, a significant difference was found between genders only in the number of personal posts ( $p < 0.05$ ). This value was  $18.67 \pm 21.41$  for males, whereas it was  $25.85 \pm 24.33$  for females.

Table 4 displays a comparison of the contents of public orthodontist accounts with and without a company name on their profiles. Public orthodontist accounts with or without

a company name on their profiles were similar in terms of gender, having a telephone number and address information ( $p > 0.05$ ). However, the number of followers ( $5472.57 \pm 8595.99$ ), number of following ( $950.55 \pm 792.00$ ), and number of posts per day ( $0.23 \pm 0.43$ ) were found to be statistically higher in accounts with a company name. In the content analysis, clear aligners played a more significant role in accounts with a company name than in accounts without a company name ( $p < 0.05$ ). There were also some differences between the two accounts in terms of patient photos. Patient and company advertisements were more common in accounts with company names ( $p < 0.05$ ).

### DISCUSSION

Recently, social media, especially Instagram, has become a significant tool for both patients and professionals in the field of healthcare.<sup>18,19</sup> Instagram has become a dominant

channel for orthodontists' relationships with active and potential patients, both as a marketing tool and for providing educational information.<sup>3,4,11</sup> The current study aimed to evaluate the posts and information shared by orthodontists in their public accounts on Instagram. The results indicated that orthodontists' private or public Instagram accounts differ in terms of the number of followers, following and shared posts. Public accounts naturally attract more followers than private accounts. This distinction understandable because while you can follow public accounts on Instagram at any time, private accounts have to be approved by the users.

Today, with the increasing time customers spend online, social media marketing is a cost-effective and more effective solution to promote services and products than traditional methods.<sup>20</sup> Notably, in public accounts, the prevalence of phone number, address information, and significantly higher volume of posts may suggest that these accounts were primarily created for

**Table 1.** Profile information descriptives of orthodontic accounts and a comparison based on the account is private or public

Parameters		Private account	Public account	p value
Number of posts (mean ± SD)		96.06±149.30	195.36±248.51	0.002 <sup>†</sup>
Number of followers (mean ± SD)		1250.56±2347.47	4071.43±6557.63	0.000 <sup>†</sup>
Number of followings (mean ± SD)		620.06±656.27	789.08±651.55	0.207 <sup>†</sup>
Gender	Male (n, %)	11 (68.8%)	79 (44.1%)	0.058 <sup>‡</sup>
	Female (n, %)	5 (31.3%)	100 (55.9%)	
Phone number	Not available (n, %)	14 (87.5%)	51 (28.5%)	0.000 <sup>‡</sup>
	Available (n, %)	2 (12.5%)	128 (71.5%)	
Address	Not available (n, %)	15 (93.8%)	46 (25.7%)	0.000 <sup>‡</sup>
	Available (n, %)	1 (6.3%)	133 (74.3%)	
Company name	Not available (n, %)	13 (81.3%)	109 (60.9%)	0.107 <sup>‡</sup>
	Available (n, %)	3 (18.8%)	70 (18.8%)	

Statistical significance at  $p < 0.05$   
<sup>†</sup>: Mann-Whitney U test, <sup>‡</sup>: Chi-square test, p: significance  
 SD, standard deviation

**Table 2.** Content analysis of public orthodontist accounts

Parameters		N (mean ± SD)	
Profile analysis	Number of days since first post (mean ± SD)	1358.72±817.61	
	Number of posts per day (mean ± SD)	0.20±0.40	
Post analysis	Content analysis	Personal post (mean ± SD)	22.68±23.30
		Awareness (mean ± SD)	16.48±20.50
		Before-after (mean ± SD)	21.78±34.09
		Fixed mechanics (mean ± SD)	18.50±29.73
		Clear aligners (mean ± SD)	3.50±12.41
		Functional appliances (mean ± SD)	2.17±9.78
		Face mask (mean ± SD)	0.33±0.86
	Photo analysis	Orthognathic surgery (mean ± SD)	0.69±4.61
		Partial face (mean ± SD)	10.62±22.75
		Full face (mean ± SD)	8.01±18.80
Patient and company advertisement (mean ± SD)		1.74±6.99	

N, number; SD, standard deviation

marketing purposes. This study revealed that orthodontists share an average of one post every five days in their open accounts, indicating their active engagement. This trend highlights the increasing prominence of social media, alongside with other marketing tools, within the field of orthodontics in recent years. The fact that the posts were orthodontic-themed rather than personal posts reveals the marketing motivation of these accounts.<sup>21,22</sup>

Studies have reported that patients use social media platforms as sources of information regarding orthodontic treatments, with Instagram being is the most frequently used program for this purpose.<sup>23-25</sup> Treatment modalities are one of the most sought-after topics by orthodontic patients on social media.<sup>26</sup> For this reason, our study also investigated the diversity of the content of Instagram accounts that orthodontists use as an information tool. Our findings frequently identified before-and-after images, and orthodontic posts aimed at increasing awareness. Supporting our findings, Meira et al.<sup>23</sup> showed that the categories of "being a teacher" and "before and after treatment" had a higher effect on the reliability perception of the participants. Among treatment modalities, fixed mechanics were the most prominently featured, consistent with our expectations. Graf et al.<sup>27</sup> similarly found that on Instagram and Twitter commonly discussed the application, removal,

and limitations of brackets in their study. Our study found that orthodontists also shared cases involving clear aligner cases. Olson et al.<sup>28</sup> showed that patients with the highest interest in orthodontic treatment with clear aligners tended to prefer orthodontists. In addition, they also reported that clear aligner treatments had a high effect on the patient perceptions of reliability. In our study, the least treatment options shared by orthodontists were functional appliances, orthodontic face masks, and orthognathic surgical treatment cases, respectively. Buyuk and Imamoglu<sup>29</sup> in their examination of orthognathic surgery posts on Instagram in 2019 using hashtags, reported that Instagram was not an adequate source of information. This highlights the importance of orthodontists sharing these options that require sensitive information for informative purposes.

Although physicians' use of social media provides significant benefits to both patients and medical professionals, it also brings ethical problems. In the orthodontist accounts analyzed in this study, the fact that the faces of orthodontic patients are shared openly in most of the posts may give an idea about possible ethical violations in social media in the coming years. These ethical considerations present significant problems for physicians as they engage in online interactions with patients, society, and colleagues.<sup>30</sup>

**Table 3.** Comparison of the contents of public orthodontist accounts between genders

Parameters		Male	Female	p value	
Profile analysis	Telephone number	Not available (n, %)	29 (36.7%)	22 (22.0%)	0.030 <sup>a</sup>
		Available (n, %)	50 (63.3%)	78 (78.0%)	
	Address	Not available (n, %)	23 (29.1%)	23 (23.0%)	0.353 <sup>a</sup>
		Available (n, %)	56 (70.9%)	77 (77.0%)	
	Company name	Not available (n, %)	54 (68.4%)	55 (55.0%)	0.069 <sup>a</sup>
		Available (n, %)	25 (31.6%)	45 (45.0%)	
	Number of days since first post (mean ± SD)		1457.24±815.31	1279.30±814.94	0.151 <sup>b</sup>
	Number of followers (mean ± SD)		4504.79±7227.95	3729.08±5990.65	0.783 <sup>†</sup>
	Number of followings (mean ± SD)		708.74±643.77	852.55±653.18	0.053 <sup>†</sup>
Number of posts (mean ± SD)		174.65±184.27	211.72±289.26	0.816 <sup>†</sup>	
Number of posts per day (mean ± SD)		0.13±0.16	0.24±0.51	0.097 <sup>†</sup>	
Post analysis	Content analysis	Personal post (mean ± SD)	18.67±21.41	25.85±24.33	0.040 <sup>b</sup>
		Awareness (mean ± SD)	19.22±24.75	14.32±16.20	0.676 <sup>†</sup>
		Before-after (mean ± SD)	27.25±44.44	17.47±22.16	0.365 <sup>†</sup>
		Fixed mechanics (mean ± SD)	23.01±38.73	14.95±19.46	0.269 <sup>†</sup>
		Clear aligners (mean ± SD)	4.16±17.66	2.98±5.53	0.052 <sup>†</sup>
		Functional appliances (mean ± SD)	3.64±14.35	1.01±2.54	0.494 <sup>†</sup>
		Face mask (mean ± SD)	0.34±1.03	0.33±0.71	0.384 <sup>†</sup>
	Orthognathic surgery (mean ± SD)	1.17±6.83	0.31±1.07	0.606 <sup>†</sup>	
	Photo analysis	Partial face (mean ± SD)	12.77±30.55	8.93±13.75	0.518 <sup>†</sup>
		Full face (mean ± SD)	10.44±25.18	6.10±11.29	0.274 <sup>†</sup>
		Patient and company advertisement (mean ± SD)	1.44±4.31	1.99±8.55	0.215 <sup>†</sup>

Statistical significance at p<0.05  
<sup>†</sup>: Mann-Whitney U test, <sup>a</sup>: Chi square test, <sup>b</sup>: Independent Samples t-test, p: Significance SD, standard deviation

**Table 4.** Comparison of the content of public orthodontist accounts with and without a company name in their profile

Parameters			Company name not available	Company name available	p value	
Profile analysis	Gender	Male (n, %)	54 (49.5%)	25 (35.7%)	0.069 <sup>a</sup>	
		Female (n, %)	55 (50.5%)	45 (64.3%)		
	Telephone number	Not available (n, %)	34 (31.2%)	17 (24.3%)	0.318 <sup>a</sup>	
		Available (n, %)	75 (68.8%)	53 (75.7%)		
	Address	Not available (n, %)	33 (30.3%)	13 (18.6%)	0.080 <sup>a</sup>	
		Available (n, %)	76 (69.7%)	57 (81.4%)		
	Number of days since first post (mean ± SD)			1394.85±842.47	1303.48±780.82	0.693 <sup>b</sup>
	Number of followers (mean ± SD)			3171.62±4645.08	5472.57±8595.99	<b>0.003<sup>†</sup></b>
	Number of followings (mean ± SD)			685.38±519.95	950.55±792.00	<b>0.023<sup>†</sup></b>
Number of posts (mean ± SD)			179.68±245.23	219.77±253.36	0.114 <sup>†</sup>	
Number of posts per day (mean ± SD)			0.17±0.37	0.23±0.43	<b>0.028<sup>†</sup></b>	
Post analysis	Content analysis	Personal post (mean ± SD)	21.52±24.70	24.48±20.98	0.292 <sup>b</sup>	
		Awareness (mean ± SD)	14.66±20.01	19.32±21.06	0.036 <sup>†</sup>	
		Before-after (mean ± SD)	22.92±37.23	20.01±28.70	0.957 <sup>†</sup>	
		Fixed mechanics (mean ± SD)	21.33±35.81	14.10±15.52	0.798 <sup>†</sup>	
		Clear aligners (mean ± SD)	1.51±4.74	6.60±18.60	<b>0.000<sup>†</sup></b>	
		Functional appliances (mean ± SD)	2.22±10.97	2.10±7.62	0.201 <sup>†</sup>	
		Face mask (mean ± SD)	0.25±0.72	0.45±1.04	0.440 <sup>†</sup>	
		Orthognathic surgery (mean ± SD)	0.82±5.82	0.48±1.33	0.312 <sup>†</sup>	
	Photo analysis	Partial face (mean ± SD)	10.40±25.75	10.97±17.25	0.499 <sup>†</sup>	
		Full face (mean ± SD)	7.71±19.00	8.48±18.60	0.204 <sup>†</sup>	
		Patient and company advertisement (mean ± SD)	0.49±1.85	3.70±10.70	<b>0.000<sup>†</sup></b>	

Statistical significance at p<0.05  
<sup>†</sup>: Mann-Whitney U test, <sup>a</sup>: Chi-square test, <sup>b</sup>: Independent Samples t-test, p: Significance SD, standard deviation

Confidentiality and privacy are the most important digital professional problems in physicians’ use of social media. If a physician shares a patient’s information to a third party without the consent of the patient, it will be a violation of privacy. For this reason, physicians should secure patients’ permission before disseminating their medical information online, even if it serves medical purposes.<sup>31</sup> In the literature, there are many studies on the effect of gender on social media usage. Nelson et al.<sup>10</sup> reported that orthodontists actively utilized social media, with a higher prevalence of usage among females. Another study conducted by Brenner<sup>31</sup> stated that the utilization rate of social media use was 79% among women and 69% among men. In the current study, it was seen that female orthodontists added their phone numbers to their profiles more frequently possibly as a means to connect with patients. The possible verbal abilities of women compared to men as a marketing strategy may explain this result.<sup>32</sup> Another difference was observed in the frequency of sharing personal posts. Female orthodontists were more willing to present slices of life visually, which is the main purpose of Instagram.

In our study, the Instagram accounts of orthodontists with or without a company name in their profiles were compared.

In the analysis of the profile information and shared posts, it was seen that a significant number of orthodontists identified themselves as “Invisalign providers” in their profiles, signifying their association with the clear aligner company. The use of this marketing method by a considerable proportion of orthodontists (39.1%) prompted a comparison between submissions from orthodontists who used and did not use this method. Clear aligner treatment, prominently represented by the Invisalign appliance, was introduced in 1997 and started to be used by orthodontists in 1999.<sup>26</sup> This relatively recent treatment approach has since been adopted by various companies across different countries. Invisalign (Align Technology, San Jose, California, USA) is the most widely used of these systems, although similar systems under different commercial names are also available in the market.<sup>33</sup> The Invisalign system serves as both a brand and a treatment methodology. Invisalign’s leadership in this regard may have led to the perception of clear aligner equals Invisalign among patients. Using a well-known clear aligner company like Invisalign in the profile description can be considered a sensible marketing strategy, given that social media relies heavily on visual content and clear aligners are often preferred for their aesthetic benefits. However, it can also be misleading when considering ethical violations and the limitations of

clear aligner treatment. The results of this study indicate that orthodontic accounts using this marketing method tend to attract a larger number of followers. When the content analysis between the two groups was analyzed, the only difference was found that the orthodontists who incorporated the company name in their profiles as a marketing method posted more content about clear aligners– a result that aligns with expectations.

Another review made on accounts with or without a company name, focusing on the photos in the posts. It was observed that the number of photographs in which the patient and the company name were in the frame together was significantly higher in the group containing the company name. It seems that this group uses a common marketing method, both the treatment method they apply and the company. Both the contribution of such shares to the awareness of the company and the fact that orthodontists attract patients who desire this treatment can please both parties.<sup>6</sup> However, the possibility of these posts increasing the prejudices of patients about fixed treatments or against other companies raises the possibility that this method may cause problems for orthodontists in the long term.

### Study Limitations

A limitation of this study was that it was based on the assessment of the most recent posts shared in a specific period and community on the Instagram platform. Secondly, the data extracted from the Instagram platform may not be consistently stable and could undergo frequent changes. Because this study was conducted in a single population, the generalizability of its results can be limited. The outcomes of this study highlight important information that can be used by orthodontists to navigate social media with greater professionalism and have a greater impact on recruiting potential patients.

### CONCLUSION

Instagram is a social network widely used among orthodontists. Based on the findings of the current study, the following conclusions could be drawn:

- Public Instagram accounts have more marketing purposes with more posts and followers.
- Public accounts are more prone to share contact information such as phone numbers and addresses.
- Accounts that incorporate a company name tend to exhibit a larger larger follower counts, a higher number of accounts followed, and a heightened frequency of daily posts.
- While the leading categories for orthodontic content sharing are centered around raising awareness and showcasing before and after transformations. Among treatment options, fixed mechanics emerged as the most frequently shared approach.

### Ethics

**Ethics Committee Approval:** Because this study comprised only the data available in the public domain, it did not require approval from an ethics committee.

**Informed Consent:** Not applicable.

### Author Contributions

Concept - M.A.Y., G.G.K.; Design - M.A.Y., G.G.K.; Supervision - M.A.Y.; Materials - M.A.Y., G.G.K.; Data Collection and/or Processing - M.A.Y., G.G.K.; Analysis and/or Interpretation - M.A.Y., G.G.K.; Literature Review - M.A.Y.; Writing - M.A.Y.; Critical Review - G.G.K.

**Conflict of Interest:** The authors have no conflicts of interest to declare.

**Financial Disclosure:** The authors declare that this study has received no financial support.

### References

1. Avcı K, Çelikden SG, Eren S, Aydenizöz D. Assessment of medical students' attitudes on social media use in medicine: a cross-sectional study. *BMC Med Educ.* 2015;15:18. [CrossRef]
2. Mansfield SJ, Morrison SG, Stephens HO, et al. Social media and the medical profession. *Med J Aust.* 2011;194(12):642-644. [CrossRef]
3. Jorgensen G. Attracting orthodontic patients via the Internet: A 20-year evolution. *Am J Orthod Dentofacial Orthop.* 2015;148(6):939-942. [CrossRef]
4. Al-Silwadi FM, Gill DS, Petrie A, Cunningham SJ. Effect of social media in improving knowledge among patients having fixed appliance orthodontic treatment: A single-center randomized controlled trial. *Am J Orthod Dentofacial Orthop.* 2015;148(2):231-237. [CrossRef]
5. Papadimitriou A, Kakali L, Pazera P, Doulis I, Kloukos D. Social media and orthodontic treatment from the patient's perspective: a systematic review. *Eur J Orthod.* 2020;42(3):231-241. [CrossRef]
6. Berland GK, Elliott MN, Morales LS, Algazy JI, Kravitz RL, Broder MS, et al. Health information on the Internet: accessibility, quality, and readability in English and Spanish. *JAMA.* 2001;285(20):2612-2621. [CrossRef]
7. Cline RJ, Haynes KM. Consumer health information seeking on the Internet: the state of the art. *Health Educ Res.* 2001;16(6):671-692. [CrossRef]
8. Lehmann BA, Ruitter RA, Kok G. A qualitative study of the coverage of influenza vaccination on Dutch news sites and social media websites. *BMC Public Health.* 2013;13:547. [CrossRef]
9. Hyman JL, Luks HJ, Sechrest R. Online professional networks for physicians: risk management. *Clin Orthop Relat Res.* 2012;470(5):1386-1392. [CrossRef]
10. Nelson KL, Shroff B, Best AM, Lindauer SJ. Orthodontic marketing through social media networks: the patient and practitioner's perspective. *Angle Orthod.* 2015;85(6):1035-1041. [CrossRef]
11. Stephen AT, Galak J. The effects of traditional and social earned media on sales: a study of a microlending marketplace. *J Mark Res.* 2012;49(5):624-639. [CrossRef]
12. Parmar N, Dong L, Eisingerich AB. Connecting With Your Dentist on Facebook: Patients' and Dentists' Attitudes Towards Social Media Usage in Dentistry. *J Med Internet Res.* 2018;20(6):e10109. [CrossRef]
13. Alkadhimi A, Al-Moghrabi D, Fleming PS. The nature and accuracy of Instagram posts concerning marketed orthodontic products. *Angle Orthod.* 2022;92(2):247-254. [CrossRef]

14. Statista. Number of Instagram users worldwide from 2020 to 2025. [\[CrossRef\]](#)
15. Peng R, Sun D, Tsai WT. Success factors in mobile social networking application development: case study of Instagram. In Proceedings of the 29th Annual ACM Symposium on Applied Computing. 2014;1072-1079. [\[CrossRef\]](#)
16. Oliveira LM, da Silva Pilecco K, de Souza DF, de Oliveira CA, Zanatta FB. Main uses of Instagram in oral health research: A scoping review. *Health Policy Technol.* 2022;11(1):100605. [\[CrossRef\]](#)
17. Zhou J, Bercovitch L. Instagram and the dermatologist: An ethical analysis. *J Am Acad Dermatol.* 2018;78(6):1226-1228. [\[CrossRef\]](#)
18. Kılınç DD. Is the information about orthodontics on Youtube and TikTok reliable for the oral health of the public? A cross sectional comparative study. *J Stomatol Oral Maxillofac Surg.* 2022;123(5):e349-e354. [\[CrossRef\]](#)
19. Kılınç DD, Sayar G. Assessment of Reliability of YouTube Videos on Orthodontics. *Turk J Orthod.* 2019;32(3):145-150. [\[CrossRef\]](#)
20. Henzell M, Knight A, Antoun JS, Farella M. Social media use by orthodontic patients. *N Z Dent J.* 2013;109(4):130-133. [\[CrossRef\]](#)
21. Chretien KC, Tuck MG. Online professionalism: A synthetic review. *Int Rev Psychiatry.* 2015;27(2):106-117. [\[CrossRef\]](#)
22. Farnan JM, Snyder Sulmasy L, Worster BK, Chaudhry HJ, Rhyne JA, Arora VM; American College of Physicians Ethics, Professionalism and Human Rights Committee; American College of Physicians Council of Associates; Federation of State Medical Boards Special Committee on Ethics and Professionalism\*. Online medical professionalism: patient and public relationships: policy statement from the American College of Physicians and the Federation of State Medical Boards. *Ann Intern Med.* 2013;158:620-7. [\[CrossRef\]](#)
23. Meira TM, Prestes J, Gasparello GG, Antelo OM, Pithon MM, Tanaka OM. The effects of images posted to social media by orthodontists on public perception of professional credibility and willingness to become a client. *Prog Orthod.* 2021;22:7. [\[CrossRef\]](#)
24. Alslakhi MH, Öz U, Sin Ç. The powerful effects of social media platforms on orthodontic patient knowledge's improving, attitude management and it is influence on financial income of the orthodontic clinic. *Appl Nanosci.* 2022;13:1-6. [\[CrossRef\]](#)
25. Siddiqui N, Chia M, Sharif MO. Social media and orthodontics: Are our patients scrolling? *J Orthod.* 2022;49(2):179-184. [\[CrossRef\]](#)
26. Al-Gunaid TH, Ibrahim AM, Alhazmi KM, Aljohani AA, Eshky RT, Althagafi N. Impact of social media on patient's decision-making toward orthodontic treatment. *Saudi J Health Sci.* 2021;10(2):132-137. [\[CrossRef\]](#)
27. Graf I, Gerwing H, Hoefler K, Ehlebracht D, Christ H, Braumann B. Social media and orthodontics: A mixed-methods analysis of orthodontic-related posts on Twitter and Instagram. *Am J Orthod Dentofacial Orthop.* 2020;158(2):221-228. [\[CrossRef\]](#)
28. Olson JC, Shroff B, Carrico C, Boyle J, Lindauer SJ. Comparison of patient factors influencing the selection of an orthodontist, general dentist, or direct-to-consumer aligners. *Am J Orthod Dentofacial Orthop.* 2020;157(4):526-532. [\[CrossRef\]](#)
29. Buyuk SK, Imamoglu T. Instagram as a social media tool about orthognathic surgery. *Health Promot Perspect.* 2019;9(4):319-322. [\[CrossRef\]](#)
30. Hamm MP, Chisholm A, Shulhan J, et al. Social media use among patients and caregivers: a scoping review. *BMJ Open.* 2013;3(5):e002819. [\[CrossRef\]](#)
31. Brenner J. Pew Internet: Social Networking Fact Sheet. Pew Research Center. [\[CrossRef\]](#)
32. Phan X, Ling PH. Clinical limitations of Invisalign. *J Can Dent Assoc.* 2007;73(3):263-266. [\[CrossRef\]](#)
33. Kim TW, Echarri P. Clear aligner: an efficient, esthetic, and comfortable option for an adult patient. *World J Orthod.* 2007;8(1):13-18. [\[CrossRef\]](#)