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Analyzing the Posts on YouTube and Instagram Concerning Endocrowns: Characteristics, Quality, and Content

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Abstract

Background: Quick and easy access to Instagram and YouTube makes them exceptional platforms that can easily convey health information to the public and mislead people as a result of misinformation in post content. The aim was to examine the quality and content of "Endocrown"-related posts on Instagram and YouTube social media platforms.

Methods: Instagram and YouTube searches were conducted by researchers using the keywords "endocrown" and "endocrowns." Along with the descriptive features of the posts, their content, quality, and reliability were evaluated according to the utility score, Global Quality Scale (GQS), and modified DISCERN (mDISCERN) score.

Results: A total of 203 Instagram posts were included in the study, of which 5% were of high quality and exhibited high content reliability. Among the 182 YouTube posts, 8% and 18% were of high quality and exhibited high content reliability, as determined by mDISCERN and GQS, respectively. A positive correlation was detected between the utility score, mDISCERN, and GQS scores ($P < .001$). Additionally, the utilization of rubber dams in the posts uploaded by dentists is significantly less than that of specialists ($P < .001$).

Conclusion: The investigation revealed that the majority of endocrown-related content on YouTube and Instagram posts was of substandard quality and lacked reliability. It is recommended that the quantity, quality, and reliability of Instagram and YouTube posts about "Endocrown" be increased.

Keywords: Crowns, dentistry, endodontics, social media, tooth

What is already known on this topic?

- *In the current era, patients are increasingly utilizing social media as a resource for medical advice and support. It has been documented that up to 75% of individuals utilize the internet for this purpose.*
- *Nevertheless, insufficient information is available on the reliability and quality shared on social media regarding a novel conservative treatment method, namely the "Endocrown."*

What this study adds on this topic?

- *The current study adds theoretical and methodological novelty by (1) being the first to analyze content related to the contemporary restorative procedure known as "Endocrown," (2) employing a theoretical framework (information-motivation-behavioral model) to evaluate content utility and behavioral relevance, and (3) comparing the performance of 2 dominant platforms using standardized assessment tools.*

INTRODUCTION

The widespread accessibility of the internet has transformed it into a primary source of health-related information.[1] University students, particularly those in healthcare disciplines, increasingly use digital platforms for academic purposes.[2] Among them, 94% of medical students actively use social media, along with 79% of residents and 42% of physicians.[3] Platforms such as YouTube and Instagram have also become also valuable for dental students due to the visual nature of their content.[4] On the other hand, the growing prevalence of social media platforms has led to a shift in the manner in which patients seek medical information. In the current era, patients are increasingly utilizing social media as a resource for medical advice and support. It has been documented that

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up to 75% of individuals utilize the internet for this purpose.[5] However, this growing reliance on social media also introduces challenges regarding the accuracy, quality, and reliability of shared health information.

In recent years, there has been a significant increase in the popularity of endocrowns as a restorative option for endodontically treated teeth.[6] These restorations offer both aesthetic and functional advantages, making them an appealing alternative to traditional post-core crowns.[7] Social media platforms frequently showcase endocrown restorations through before-and-after images and explanatory content. Such visual representations may influence patients' preferences by presenting endocrowns as a viable alternative to tooth extraction in cases of severe tissue loss.

Despite their educational potential, social media platforms have been criticized for hosting content that is inconsistent in quality and rarely evidence based. Menziletoglu et al[8] noted that many YouTube videos related to dental implants were a limited source for the patients, while Kurian et al[9] emphasized the limited usefulness and substandard quality of YouTube videos related to implant-supported fixed rehabilitation for patient education. Similarly, Yagci[10] highlighted that YouTube is not suitable as the only source of information on denture care. These findings suggest that users may be exposed to unreliable information, potentially influencing both patient decisions and professional practices.

To contextualize this phenomenon, the information-motivation-behavioral Skills (IMB) model provides a useful framework. According to this model, individuals' health behaviors are shaped by 3 key components: access to accurate information, motivation to act, and the behavioral skills required to implement the information effectively.[11] In this context, exposure to inaccurate or misleading content about dental procedures—such as endocrowns—could lead to misinformed decisions regarding treatment options.

Given the limited number of studies evaluating the quality of social media content specific to dental restorations, this study aims to fill that gap by assessing the content, quality, and reliability of Instagram and YouTube posts related to endocrowns. In doing so, it also explores the potential implications of this content through the lens of the IMB model.

The null (H0) hypotheses are following:

$H0_1$: There is no significant difference in the quality or content reliability of Instagram and YouTube posts related to "Endocrown"; the majority of the posts are not of low quality.

$H0_2$: There is no significant difference in the quality or content reliability scores between posts shared by dental specialists and those shared by general dentists.

MATERIALS AND METHODS

This cross-sectional observational study utilized publicly available data from Instagram and YouTube, thus obviating the necessity for ethics committee approval, similar to previous studies.[12-14] The study was conducted in accordance with the principles of the Declaration of Helsinki and followed a prospective design.

Data Collection and Search Strategy

To minimize the influence of algorithmic personalization on search results, a new Gmail account was created on March 1, 2024, and linked to newly created Instagram and YouTube accounts. All searches were performed using the Google Chrome browser on a single personal computer (Macbook Pro-C02YVFG2L40Y), which had not been previously used for social media access. To minimize bias caused by personalization of YouTube search results (such as browser history, cookies, or location-based suggestions), all searches in this study were conducted using the browser's incognito mode. Additionally, it was ensured that no user was logged into a YouTube or Google account during the searches. This controlled setup ensured standardized search conditions and minimized the impact of user-specific browsing history or cookies.

Two researchers (K. Ö. and V.H.A) with at least 7 years of clinical experience conducted the search for data related to the keywords "endocrown" and "endocrowns" on the Instagram and YouTube social media platforms. The search was performed from Istanbul, Türkiye, between March 1 and March 10, 2024. Data collection continued until the platform indicated "No more results.".

Posts were screened according to predefined inclusion and exclusion criteria. Posts were excluded if they (1) were in languages other than English, (2) did not pertain to endocrown-related content, (3) were duplicates, (4) featured cartoons, or (5) included patient-dentist images. A total of 557 posts (images and videos) were initially identified; after applying the exclusion criteria, 385 posts (203 from Instagram, 182 from YouTube) remained for analysis.

The following variables were recorded for each post: number of likes, comments, and followers; country of origin; purpose of the post (categorized as self-promotional or educational); poster's role (dentist, restorative specialist, prosthodontist, or endodontist); account type (laboratory, dentist, individual user, or dental clinic); source type; and interaction index. The interaction index was calculated as the sum of likes and comments divided by the number of followers, and then multiplied by 100.[15,16]

The search strategy included the quality analysis, which benefited from 3 quality indexes developed for images and videos: modified DISCERN (mDISCERN), Global Quality Scale (GQS), and Utility Scoring System.

Modified DISCERN

The reliability of the posts was evaluated using a 5-point modified DISCERN (mDISCERN) scale,[13] which was developed from the DISCERN reliability tool, a well-known scoring system that was originally introduced by Oxford University and the British Library for use by healthcare consumers.[17] DISCERN is a free evaluation tool (www.discern.org.uk) which can be used by patients, professionals, and information editors. DISCERN comprises a total of 16 questions divided into 3 sections: The initial 8 questions pertain to the reliability of the publication, whereas the subsequent 7 address specific details of information regarding treatment options. The question 16 addresses the overall assessment of the instrument. The DISCERN website provides a detailed explanation of the significance of each question and offers clear guidance on how to evaluate them. In accordance with previous quality studies, the present study employed only the initial component of the questionnaire, specifically mDISCERN, for the purpose of evaluating reliability.[18,19]

Modified DISCERN has 5 questions as follows: 1. Are the aims clear and achieved? 2. Are reliable sources of information used? (i.e., publication cited, speaker is specialist in dentistry) 3. Is the information presented balanced and unbiased? (Any reference to other treatment choices) 4. Are additional sources of information listed for patient reference? 5. Does it refer to areas of uncertainty? "Yes" answer is scored as "1" and "no" answer is scored as "0". The total "yes" answers are calculated to reach a reliability score. According to the scoring result, above 3 points represent good, 3 points represent average, and below 3 points represent weak content reliability.[18,19]

Global Quality Scale

In order to assess the educational value of each post, the GQS, initially described by Bernard et al,[20] was utilized. The GQS is a scoring system that assesses the educational value of each video ranges from 1 to 5, with 1 and 2 points indicating low quality, 3 points indicating medium quality, 4 and 5 points indicating high quality.[21] This scoring system is presented in Table 1.

Utility Scoring System

As the modified DISCERN and GQS scoring systems do not provide a specific assessment of the posts related to endocrowns, a more detailed evaluation of videos and photographs in terms of endocrown-specific diagnosis, classification, treatment alternatives, and complications was conducted using the Utility Scoring System. A comprehensive review of the extant literature on endocrowns was conducted, followed by a closed group discussion to establish the utility criteria. The closed group consisted of 3 specialists in endodontics and 2 specialists in restorative dentistry, with a minimum of 10 years' experience. The utility of the posts was evaluated according to 8 criteria (Table 2). A score of "1" was awarded to posts that met the specified criteria, while a score of "0" was assigned to those that did not. A total score of "0" indicated that the post was not useful. A total score of "1" or "2" indicated that the post was of poor quality and only slightly useful for viewers. A total score between "3" and "5" indicated that the post was moderately useful. A total score of between "6" and "8" indicated that the post was highly useful for viewers. While utility scoring for endocrown has not been conclusively validated, the feasibility of employing scales with a similar structure, as demonstrated in previous studies[22,23] using other specific-disease scales, has been confirmed.

The process of analysing and evaluating the photographs and videos on Instagram and YouTube took approximately 1 month.

Inter-Coder Reliability Assessment

To ensure the reliability of the coding process, inter-coder reliability was assessed between the 2 independent coders (K.Ö. and V.H.A.) who are a dentist and an endodontist. A subset of 20% of the total posts (n=77) was coded by both researchers. Cohen's kappa (κ) was used to measure the degree of agreement across quality index scores, including mDISCERN, GQS, and Utility variables. The kappa coefficients for all coded variables ranged from 0.88 to 0.92, indicating excellent inter-coder reliability according to Landis and Koch's criteria.[24] Following a consensus on the initial 77 posts, evaluations were carried out independently, with any divergences in ratings reconciled through collaborative dialogue.

Statistical Analysis

Before testing the research hypotheses, the dataset was examined for missing values, outliers, and the assumption of normality, among other requirements. The skewness and kurtosis values for the indices used in the research (utility score, GQS, modified DISCERN, interaction index) were within

Table 1. Global Quality Scale Scoring System

Definition of Quality	Score
Very poor quality and flow; most of the information is missing, not suitable for use by dentists/patients, not at all usefull for dentists/patients	1
Poor quality and flow; Limited use for dentists/patients as only some information is available	2
Medium quality and low standards of flow; contains some important information but does not provide enough information, somewhat useful for patients; and useful to the basic level for dentists	3
Good quality and flow; The vast majority of important information on the subject has been presented, useful for dentists/patients	4
Excellent quality and flow; very useful for dentists/patients	5

Table 2. Criteria for Utility Score

Criteria	Answer (Yes: 1 Point, No: 0 Point)
Indications and contraindications	Yes/No
Advantages and disadvantages	Yes/No
Preoperative and postoperative photos	Yes/No
Follow-up period	Yes/No
Location of teeth treated (anterior vs. posterior)	Yes/No
Type of teeth treated (permanent vs. primary)	Yes/No
Number of teeth treated	Yes/No
Treatment method (sedation, general anesthesia, clinical conditions)	Yes/No
Total score	("0": not useful. "1-2": poor quality and only slightly useful. "3-5": moderately useful. "6-8": highly useful.)

the range of +2 to −2, leading to the conclusion that the research variables were normally distributed and, therefore, parametric tests could be applied. Univariate outliers in the study were analyzed using the *Z* standard score. The data analysis employed the Pearson Correlation Test, Independent Samples t-test, and chi-square one-way ANOVA with post-hoc tests analysis. To provide intra-class correlation, the same observers reviewed same 77 posts, one month later. Intra-class correlation coefficients were calculated to determine intra-observer reliability (0.90 and 0.92). Data were analyzed using IBM SPSS version 29.2 (IBM SPSS Corp.; Armonk, NY, USA). The statistical significance level was set at 5%.

RESULTS

The distribution of source type of posts between Instagram and YouTube shows a slight preference for Instagram, with 203 posts (52.7%) compared to YouTube's 182 videos (47.3%). Regarding the type of post, video content (207 counts, 53.8%) slightly surpasses photo content (178 counts, 46.2%), indicating a preference for video-based communication. The purpose of the posts is predominantly self-promotional (231 counts, 60.0%), compared to educational posts (154 counts, 40.0%). Lastly, the categories of accounts include a majority of dentist accounts (208 counts, 54.0%), with dental clinics (95 counts, 24.7%), individual users (49 counts, 12.7%), and laboratories (33 counts, 8.6%) also contributing to the online content.

In terms of clinical roles, most content was shared by general dentists (n=203; 52.7%), followed by restorative specialists (n=106; 27.5%), prosthodontists (n=62; 16.1%), and endodontists (n=14; 3.6%). Rubber dam usage was identified in 71.9% (n=277) of the posts, whereas 28.1% (n=108) did not display rubber dam application.

The 5 countries with the highest number of posts were India (10.9%), Egypt (9.6%), Iran (9.4%), the United States (7.8%), and Brazil (7.5%).

The descriptive statistics of the social media metrics, including utility score, GQS, mDISCERN, and data on likes, comments, and interaction index for the selected photographs and videos, are presented in Table 3.

As illustrated by Figures 1-3, the distribution of utility, GQS, and mDISCERN scores across Instagram and YouTube posts has been thoroughly analysed. This visualization enhances the interpretation of content quality differences between platforms by providing a comparative view of score frequencies. Instagram posts were mostly rated as poor or moderately useful (63% and 36%, respectively), with only 1% classified as not useful. According to GQS and mDISCERN scores, 78% and 90% of Instagram posts, respectively, were of low quality and weak reliability.

In contrast, YouTube videos showed higher quality and reliability: 20% were rated as highly useful, 51% as moderately useful, and 29% as slightly useful. Global Quality Scale scores identified 18% of YouTube content as high quality, while 71% of videos still had weak mDISCERN scores.

Independent samples *t*-tests revealed statistically significant differences between platforms. YouTube had significantly

Table 3. Descriptive Statistics of Social Media Metrics

	N (number of shared posts)	Minimum	Maximum	Mean	SD
Utility score	385	0	8	2.98	1.66
GQS	385	1	5	2.04	1.01
mDISCERN	385	0	5	1.58	1.14
Interaction index	385	0	200	8.98	2.45
Number of likes	385	0	411.000	1575.70	21007.19
Number of comments	385	0	4740	35.24	281.36
Number of followers	385	0	2.220.000	48565.42	173216.08

GQS, Global Quality Scale; mDISCERN, modified DISCERN.

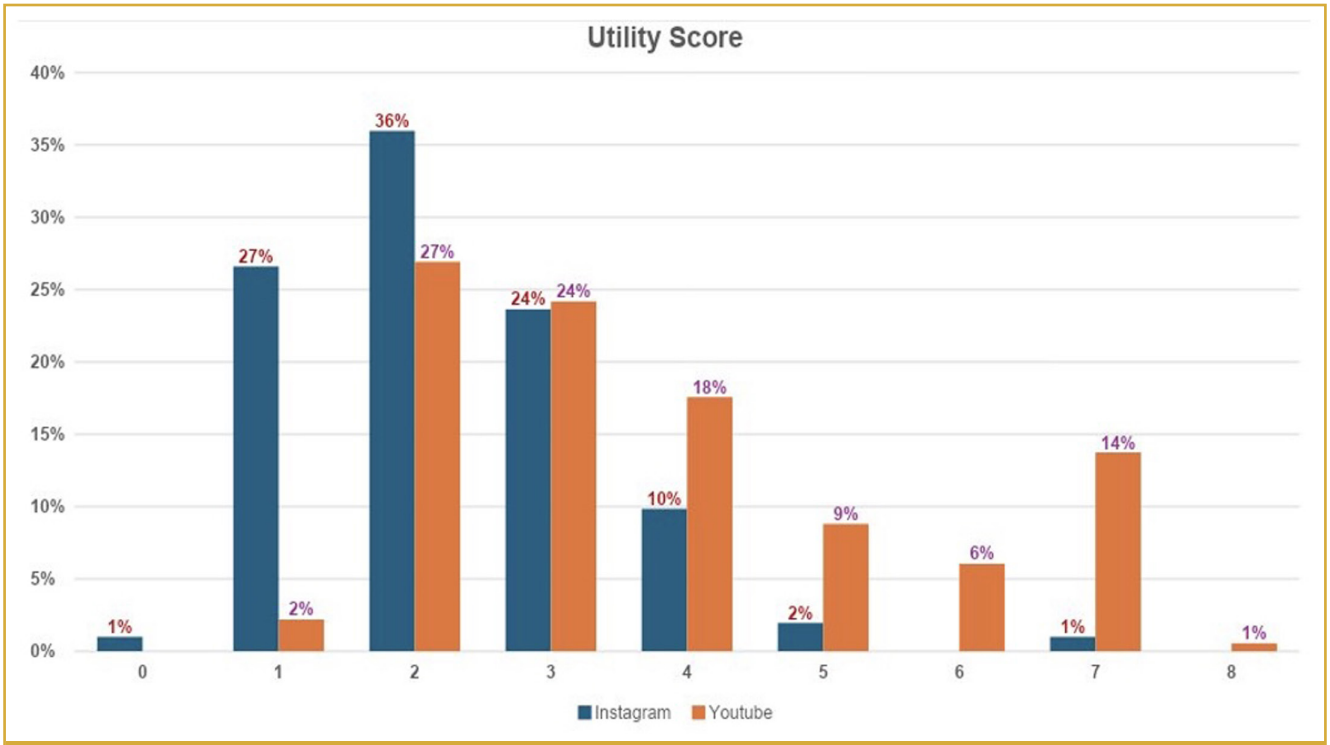

Figure 1. The total percentage of utility scores assigned to Instagram and YouTube posts.

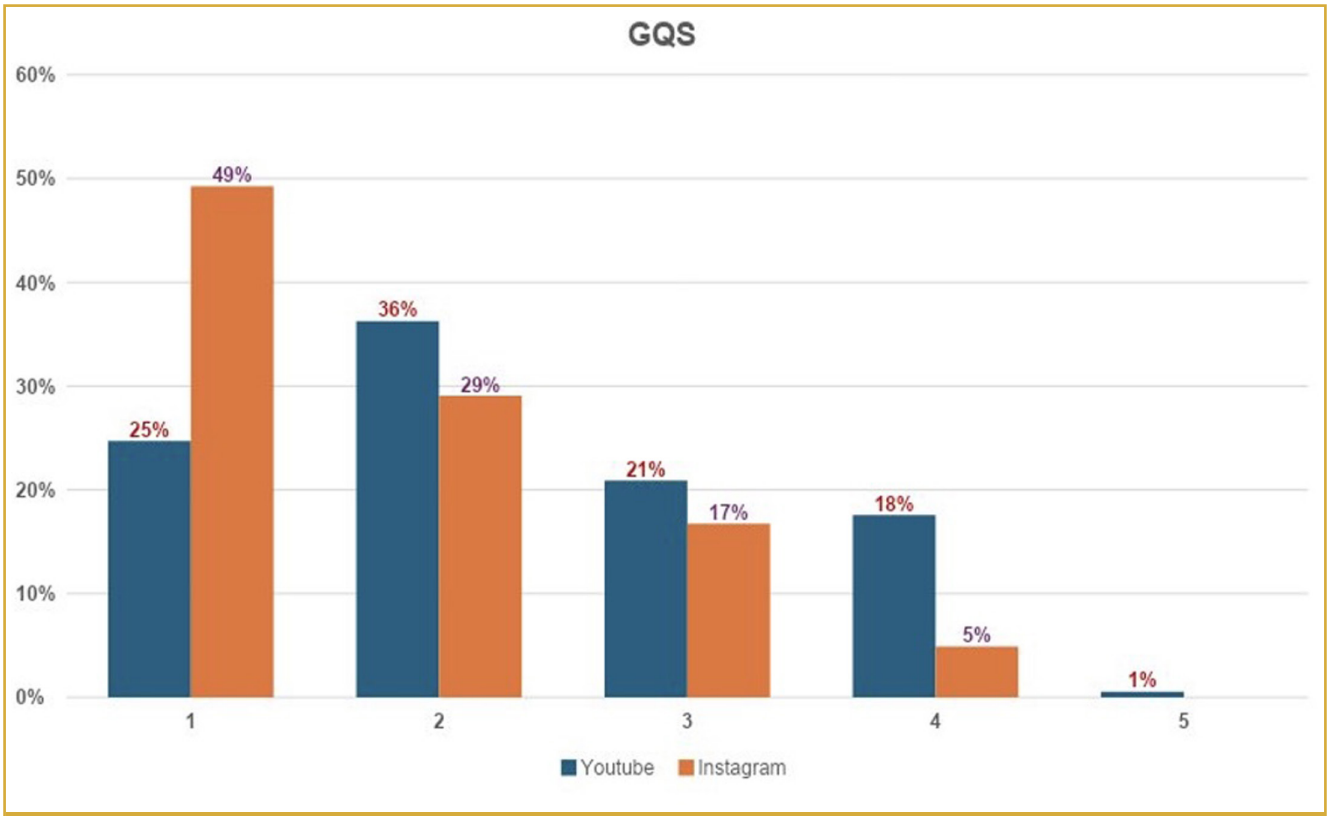

Figure 2. The total percentage of Global Quality Scale assigned to Instagram and YouTube posts.

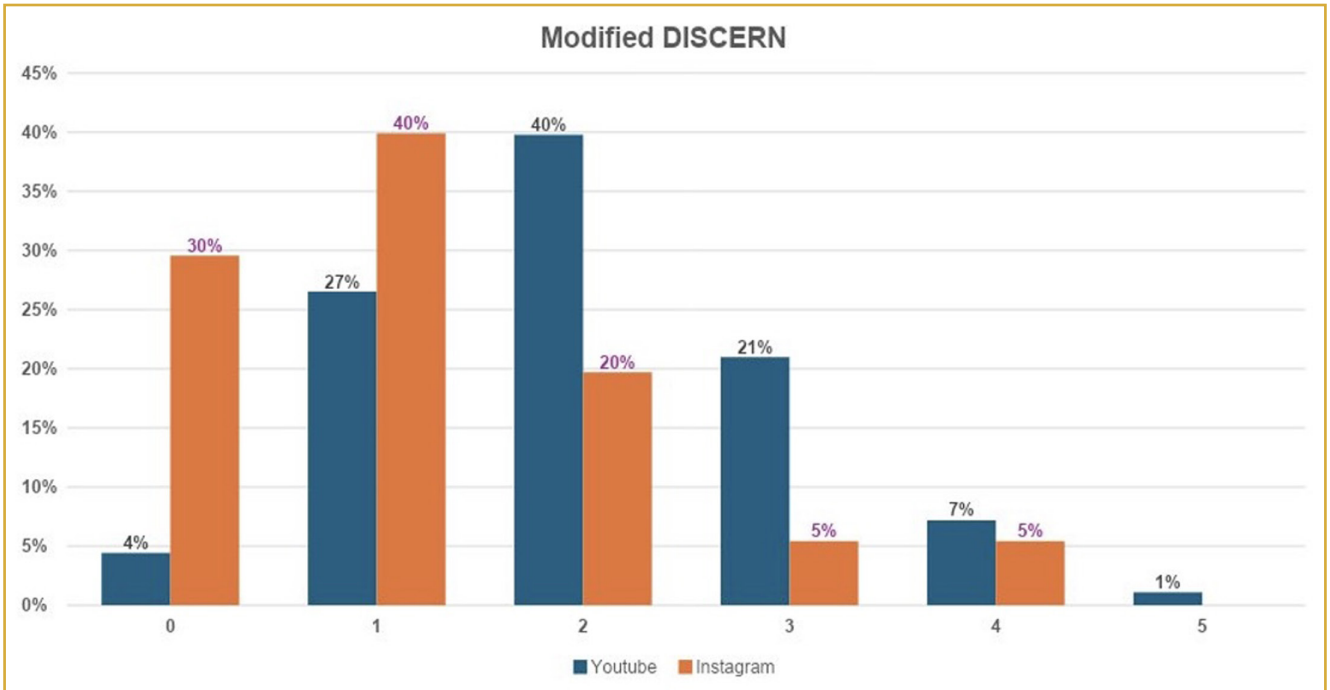

Figure 3. The total percentage of modified DISCERN scores assigned to Instagram and YouTube posts.

higher mean scores than Instagram across all quality indicators (Table 4). These results reject H_{01}, indicating significant platform-based differences, with YouTube posts being significantly more useful, of higher quality, and more reliable than Instagram content.

One-way ANOVA results indicated significant differences in utility score ($F = 26.02$, $P < .001$), GQS ($F = 32.03$, $P < .001$), and mDISCERN ($F = 31.09$, $P < .001$) based on the professional role of the poster (Table 5). Dunnett T3 post hoc tests showed that endodontists consistently scored highest across all quality measures ($P < .001$). In contrast, general dentists had the lowest mean scores. No significant differences were found between prosthodontists and restorative specialists for any of the 3 quality indices ($P = .965$, $P = .998$, and $P = .333$, respectively). These findings reject H_{02}, indicating significant variation in content quality based on the clinical background of the poster, with specialist content (especially by endodontists) demonstrating higher informational and quality value.

Table 4. Comparison of Utility Score, GQS, and mDISCERN Scores between Instagram and YouTube™ Accounts

Index	Account	N	Mean	SD	t	P
Utility score	Instagram	203	2.26	1.140	−10.238	.001
	YouTube™	182	3.80	1.774		
GQS	Instagram	203	1.77	0.900	−5.591	.001
	YouTube™	182	2.33	1.052		
mDISCERN	Instagram	203	1.17	1.083	−7.985	.001
	YouTube™	182	2.03	1.021		

Independent *t*-test. $P < .05$.
GQS, Global Quality Scale; mDISCERN, modified DISCERN.

Table 6 presents the correlations of utility score, GQS, and mDISCERN Index between Instagram and YouTube. Strong positive correlations were observed between utility score and GQS (Instagram: $r = .780$; YouTube: $r = .892$), utility score and mDISCERN (Instagram: $r = .794$; YouTube: $r = .859$), and GQS and mDISCERN (Instagram: $r = .802$; YouTube: $r = .894$), all significant at $P < .05$. A positive correlation is evident among Utility, GQS, and mDISCERN scores for both the Instagram and YouTube platforms. As outlined in Figures 4-6, each of them is illustrated with detailed specifications.

The interaction index showed weak correlations with utility score, GQS, and mDISCERN across both platforms (Table 6).

Additionally, t-test analysis revealed no significant difference in the number of likes between posts that included rubber dam usage and those that did not ($t = .85$, $P = .196$).

DISCUSSION

A number of video evaluation tools are available to assess the reliability and educational quality of a given video. In this study, 3 complementary scoring systems were employed—the utility score, mDISCERN index, and GQS to ensure a comprehensive and multidimensional assessment of Instagram posts. These tools were selected based on their established use in prior research evaluating online medical content and their relevance to the characteristics of social media posts,

Table 5. Quality and Content Indexes Scores of Instagram and YouTube According to the Roles of the Poster

	N	Utility Score		GQS		mDISCERN	
Poster Role	(Number of Shared Posts)	Mean	SD	Mean	SD	Mean	SD
Dentist	203	2.41	1.30	1.64	.81	1.16	.95
Restorative specialist	106	3.41	1.67	2.38	.99	1.82	.94
Prosthodontist	62	3.63	1.83	2.45	1.08	2.18	1.34
Endodontist	14	5.21	1.72	3.36	.75	3.14	1.03
Total	385	2.98	1.66	2.04	1.01	1.58	1.14
P		**<.001**		**<.001**		**<.001**	

One-way ANOVA. Significant values are in bold.
GQS, Global Quality Scale; mDISCERN, modified DISCERN.

which often combine visual and textual elements.[25-29] The utility score was utilized to evaluate the practical content of each post, focusing on whether it included clinically relevant, understandable, and actionable information. The mDISCERN index, adapted from the original DISCERN tool, was chosen for its ability to assess both the accuracy and reliability of health-related content in formats with limited textual explanation. The GQS**,** a widely used 5-point Likert scale, provided a measure of the overall educational value and flow of information presented in the post. The rationale for utilizing all 3 tools concurrently was to mitigate the limitations of relying on a single subjective scale and to strengthen the objectivity of the evaluation through cross-validation. Each tool captures distinct yet interrelated dimensions of quality (content utility, reliability, and educational impact) which are all critical in assessing social media-based health education.

The utility score, mDISCERN index, and GQS score demonstrated a high correlation ($0.6 \leq r < 0.8$). This outcome is significant in terms of its position between 3 subjective scales.

In contrast, the interaction index, which indicates the popularity of a video, did not correlate with the quality indicators ($r < 0.2$). This finding underscores a critical distinction: a post's popularity does not necessarily equate to its educational or informational quality.

A significant finding regarding the utilization of rubber dams is that 277 posts (71.9%) demonstrate its application, while 108 posts (28.1%) do not. This suggests that the shared content places a strong emphasis on clinical procedures and patient safety. A noteworthy finding of this study is that the utilization of the rubber dam is less prevalent among general dental practitioners in comparison to other dental specialties, including restorative specialists, prosthodontists, and endodontists. These findings were consistent with those obtained in studies[30,31] conducted in Saudi Arabia, which demonstrated that the proportion of endodontists who used the rubber dam was significantly greater than that of general dental practitioners ($P < .05$). This can be attributed to the advanced training in rubber dam application acquired by specialists during postgraduate programmes.[31] In many countries, there exists a separate curriculum in Endodontic doctoral/specialist programs dedicated to the use of rubber dam.[31] Furthermore, it is possible that specialists, particularly endodontists, have become more aware of the potential risks their patients may be exposed to in the absence of rubber dam placement. This finding indicates that greater emphasis should be placed on the utilization of rubber dams during undergraduate education.

The present study has revealed that videos uploaded by dentists tend to be of a lower quality than those uploaded by other specialists, including restorative specialists, prosthodontists, and endodontists. This result is also consistent with other studies,[32,33] indicating that the presence of these videos uploaded by specialists on platforms such as YouTube contributes to an overall increase in the average quality index. By disseminating such videos, uploaded and explained by specialists, especially endodontists, access to accurate knowledge can be facilitated and reliable sources provided for viewers.[33] This, in turn, can contribute to the enhancement of the quality of online education.

Table 6. Correlations of Utility Score, Global Quality Scale, Modified DISCERN, and Interaction Index Between Instagram and YouTube

		Utility Score	GQS	mDISCERN	Interaction Index
Utility score	Instagram				
	YouTube				
GQS	Instagram	.78*			
	YouTube	.89*			
mDISCERN	Instagram	.79*	.80*		
	YouTube	.86*	.89*		
Interaction Index	Instagram	.04	.03	.01	
	YouTube	.16*	.20*	.15*	

One way ANOVA. Pearson correlation.
GQS, Global Quality Scale; mDISCERN, modified DISCERN.
*$P < .05$.

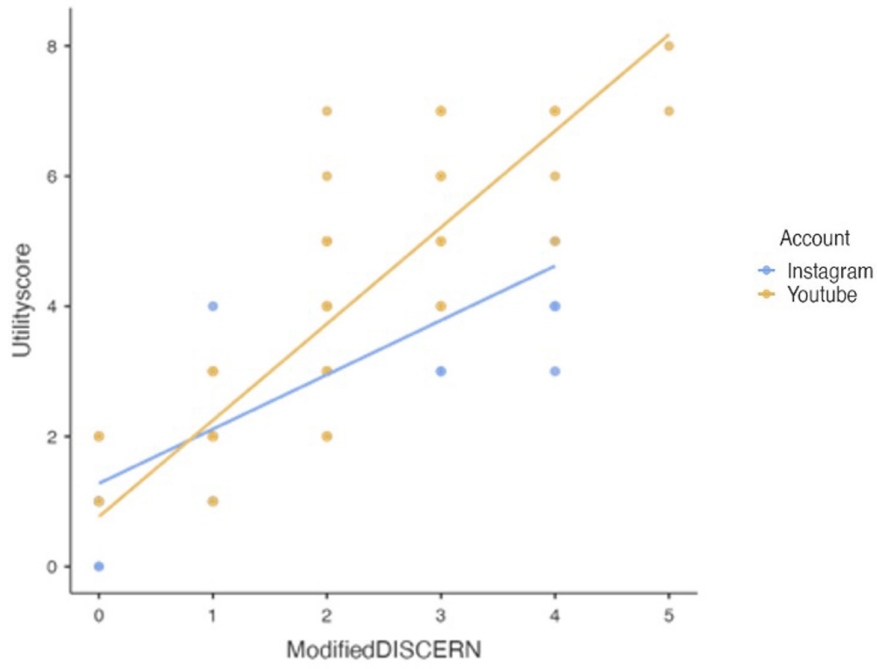

Figure 4. Scatterplot of the relationship between mDISCERN scores and utility score assigned to Instagram and YouTube posts.

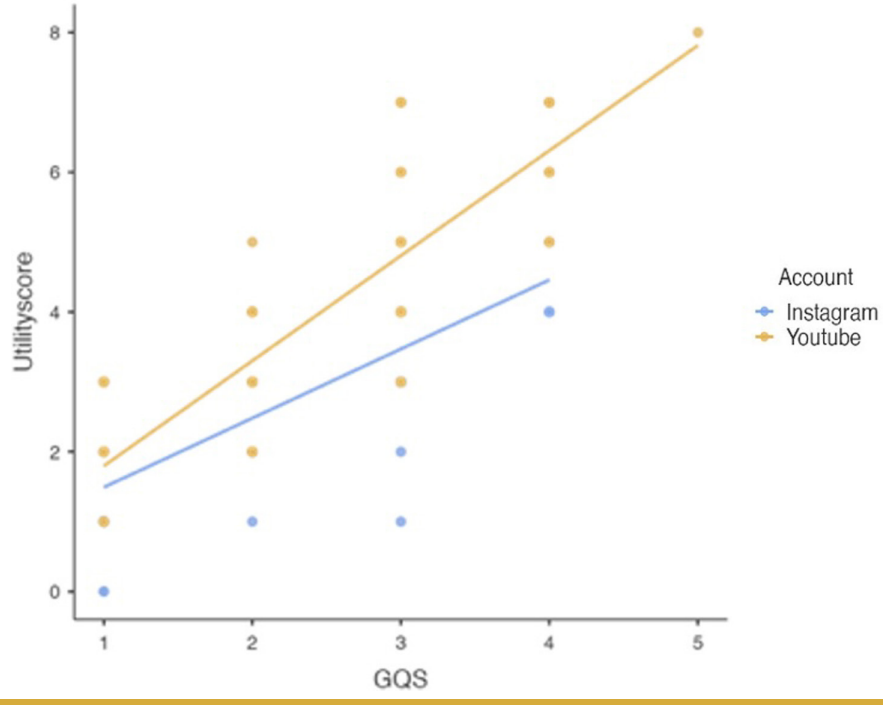

Figure 5. Scatterplot of the relationship between Global Quality Scale and utility score assigned to Instagram and YouTube posts.

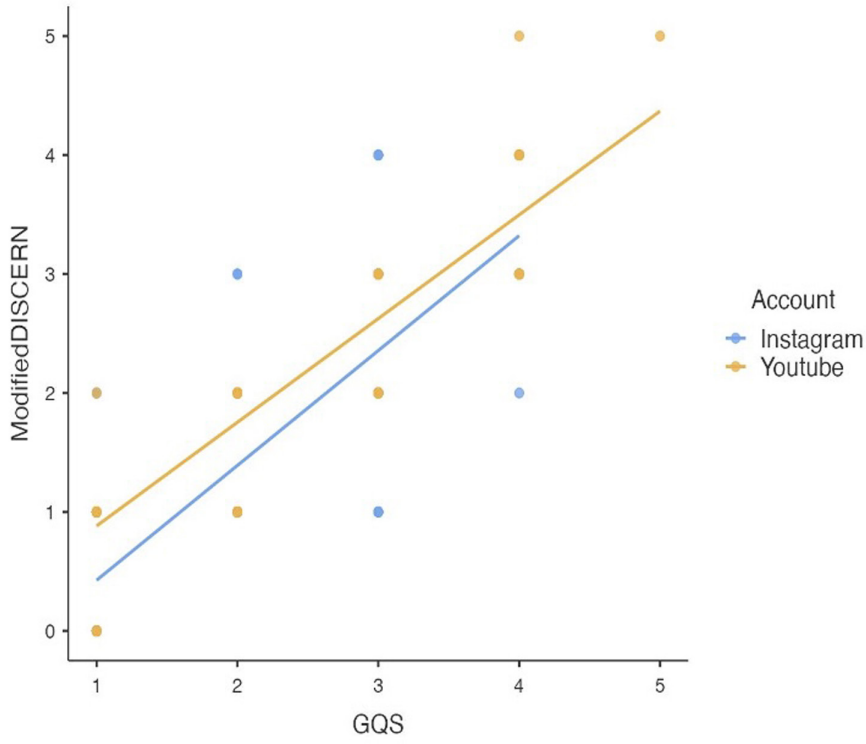

Figure 6. Scatterplot of the relationship between Global Quality Scale and modified DISCERN assigned to Instagram and YouTube posts.

The findings of the study indicated that significantly higher scores were observed for each index in YouTube posts. As a conclusion, the YouTube posts were significantly more useful, of a higher quality and more reliable according to the results ($P < .001$). This result may be attributed to the preference of academic institutions and universities, as well as healthcare professionals, for sharing information on YouTube. In recent years, academic institutions, physicians, and universities have increasingly utilized YouTube as a platform for disseminating information. This trend can be attributed to the platform's accessibility, convenience, and ability to reach a diverse audience. Additionally, the introduction of longer video content on YouTube has further enhanced its appeal. Consequently, it can be considered that the quality and quantity of YouTube posts have increased accordingly. These findings are consistent with those of previous studies.[29]

The findings of this study, revealing a predominance of low-quality and unreliable content on Instagram and YouTube, can be critically interpreted through the lens of the IMB model. Despite the vast amount of endocrown-related material available, the lack of accurate and comprehensible information (the "Information" component of the IMB model) limits its educational value. Moreover, posts created by non-specialists or those failing to demonstrate proper clinical protocols may fail to enhance users' motivation to learn more or to adopt evidence-based practices. The scarcity of content demonstrating behavioral skills, such as proper rubber dam usage or step-by-step procedures, further undermines the potential of these platforms to promote informed dental health decisions. These observations support the need for more structured, high-quality content on social media that aligns with the principles of the IMB model, promoting not only awareness but also motivation and appropriate action among its diverse audience.

While prior studies have established that medical content on social media is often of suboptimal quality,[34,35] the current study adds theoretical and methodological novelty by (1) being the first to analyze content related to the contemporary restorative procedure known as "Endocrown," (2) employing a theoretical framework (IMB model) to evaluate content utility and behavioral relevance, and (3) comparing the performance of 2 dominant platforms using standardized assessment tools. This theory-driven and procedure-specific approach offers new insights into how dental information is presented and interpreted on different social media platforms. Collectively, these aspects serve to enhance the interpretability and applicability of the findings in both clinical education and digital health communication strategies.

The findings of this study gain further depth when considered in light of eHealth literacy, which encompasses individuals'

ability to search for, comprehend, evaluate, and apply online health information.[36] The variability in content quality across platforms like YouTube and Instagram may have differing impacts depending on users' levels of digital health literacy. Individuals with lower eHealth literacy may be more vulnerable to misunderstanding or misapplying inaccurate or incomplete information. Therefore, improving eHealth literacy among social media users is just as critical as enhancing the quality and reliability of the content itself in addressing misinformation.

One limitation of this study is that only a cross-sectional analysis at a specific point in time was possible due to the dynamic nature of platforms such as YouTube, where content can be continuously uploaded. Furthermore, engagement metrics such as views and likes are inherently time-sensitive and may vary depending on how long the content has been online. Posts uploaded earlier may have accumulated more interactions simply due to longer exposure, which may compromise the validity of direct comparisons across posts. Additionally, the study did not account for content shared under other potentially relevant hashtags, which may have led to the exclusion of some pertinent material. Finally, as only English-language posts were included, the findings may not fully represent content available in other languages.

Although social media posts (especially on visually oriented platforms like Instagram) are inherently limited in delivering comprehensive medical information, their value may lie in initiating awareness and prompting users to seek further evidence-based sources. Therefore, while established quality assessment tools such as the GQS and mDISCERN were used to maintain comparability with prior literature,[22,23,34,35] it is also acknowledged that these tools may not fully capture the intent or user-engagement dynamics unique to social media. Future research should incorporate metrics that reflect informational prompting or behavioral engagement.

In further studies at an advanced level, the use of algorithms to gather data on the demographics and behaviors of viewers (such as whether they are patients, dental students, or professionals) can be highly valuable. These data could be used to explore how different user groups interact with and evaluate content in terms of perceived quality and engagement indices. Considering the diversity in information needs and expectations between lay audiences and those with formal dental training, understanding audience profiles could substantially improve the relevance and effectiveness of health-related content on platforms like Instagram and YouTube. Planning such research may contribute to developing more targeted educational strategies and enhancing the overall quality and accessibility of online health information.

CONCLUSION

The study demonstrated that the majority of Instagram and YouTube posts concerning endocrowns were lacking in terms of both high-quality and high-reliability content. The widespread availability of highly popular yet low-quality content may adversely influence clinical education, particularly among students or professionals with limited experience, by promoting oversimplified or inaccurate representations of restorative procedures such as Endocrowns. Therefore, to mitigate the spread of misleading or low-quality information concerning to dental treatments, structured content moderation strategies and evidence-based health communication guidelines should be implemented on social media platforms. These may include the development of professional standards for health-related content, collaboration with regulatory bodies, and the promotion of verified sources.

It is essential that specialists, most notably endodontists, assume greater responsibility for the content on video-sharing platforms, as this content has the potential to influence patient behavior, motivation, and dental health decisions regarding endocrowns through the lens of the IMB model.

Data Availability Statement: The data that support the findings of this study are publicly available.

Ethics Committee Approval: The methodology of the present study is designed without any human or human-related subjects. Therefore, no ethical approval was necessarily obtained.

Informed Consent: The methodology of the present study is designed without any human or human-related subjects. Therefore, no informed consent was necessarily obtained.

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