Research Square

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Quality, reliability, and content completeness of Chinese-language short videos on gingival recession available on TikTok and Bilibili: a cross-sectional study

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Abstract

Background

Social media short videos have become increasingly important sources of health information; however, the quality and reliability of online oral health content remain uncertain. This study aimed to evaluate Chinese-language short videos related to gingival recession on TikTok and Bilibili and investigate associations between platform type, uploader category, user engagement, and information quality.

Methods

A cross-sectional study was conducted using videos retrieved from TikTok and Bilibili on June 23, 2026, using the keyword “□□□□”. After screening, 184 videos were included. Video quality and reliability were assessed using the Global Quality Scale (GQS), modified DISCERN (mDISCERN), and JAMA benchmark criteria. Content completeness was evaluated using a predefined checklist. Statistical analyses included non-parametric tests and Spearman correlation analysis.

Results

Among included videos, 109 were from TikTok and 75 from Bilibili. Individual users represented the largest uploader group, while professional healthcare providers accounted for 23.37%. Clinical manifestations, treatment, and etiology were commonly discussed, whereas risk factors were rarely addressed. Overall quality remained moderate, with median GQS, mDISCERN, and JAMA scores of 2. Bilibili videos demonstrated longer duration, higher engagement, and higher quality scores than TikTok videos. Videos uploaded by professional healthcare providers showed higher engagement. Engagement metrics were strongly correlated with each other but were not associated with quality scores.

Conclusion

Chinese-language gingival recession videos on TikTok and Bilibili showed moderate overall quality but insufficient preventive and risk-factor information. Professional participation and evidence-based content development are needed to improve online periodontal health education.

1. Introduction

Gingival recession is a common periodontal condition characterized by apical migration of the gingival margin and exposure of the root surface[1]. It may result in dentin hypersensitivity, aesthetic concerns, root caries, and reduced oral health-related quality of life[2]. The occurrence and progression of gingival recession are influenced by multiple biological and behavioral factors[3, 4], including periodontal

inflammation, traumatic toothbrushing, anatomical characteristics, and behavioral factors.Therefore, improving public understanding of disease mechanisms, modifiable risk factors, preventive approaches, and appropriate treatment options is important for promoting early recognition and effective periodontal health management[5, 6].

The rapid expansion of digital media has transformed health information dissemination[7, 8]. Short-video platforms provide broad accessibility, algorithm-driven recommendations, and interactive communication, enabling rapid distribution of medical knowledge[9–11]. Nevertheless, the widespread availability of user-generated health content also presents challenges. Unlike conventional medical resources, information published on social media is generally not subjected to systematic expert review, which may result in inaccurate, incomplete, or potentially misleading health messages being distributed to the public[12, 13]. Previous studies evaluating medical videos have shown that high engagement does not necessarily indicate high-quality health information[14–16].

In China, TikTok and Bilibili are two major video-sharing platforms that differ in content formats and user engagement patterns. TikTok primarily emphasizes brief, rapidly consumed content through algorithm-based recommendations, whereas Bilibili has developed a community-oriented environment in which users frequently engage with relatively longer and more educational videos[17, 18]. These differences may affect how oral health information is produced, presented, and received by audiences. In addition, the professional background of content creators may further influence the accuracy, completeness, and credibility of health-related videos. Although social media-based information has been investigated for various diseases[17–19],evidence regarding the characteristics and quality of gingival recession-related short videos remains limited[20].

Therefore, this study aimed to evaluate the quality, reliability, and content completeness of Chinese-language gingival recession-related videos on TikTok and Bilibili using Global Quality Scale (GQS)[21], modified DISCERN (mDISCERN)[22], and JAMA benchmark criteria[23]. We further explored whether platform type, uploader category, and engagement metrics were associated with video quality outcomes.

2. Methods

2.1 Study design and data collection

This cross-sectional study aimed to evaluate the quality, reliability, and content completeness of Chinese-language educational videos on gingival recession available on TikTok and Bilibili. Since no human participants were involved, no personal information was collected, and no interaction with users occurred, ethical approval was not required. All data were obtained from publicly accessible sources without recording identifiable user information. Data collection was performed on June 23, 2026, and analysis was conducted from June 25 to June 27, 2026.

2.2 Search strategy and video selection

A newly created account without previous browsing history or interaction activity was used to minimize recommendation bias[19]. The search term was "□□□□". Initially, 300 videos were retrieved (150 from each platform). All videos were identified through keyword-based searches rather than personalized recommendation feeds. A single standardized keyword was selected to improve search reproducibility and reduce variability caused by differences in terminology usage among content creators.

A total of 300 videos were initially retrieved, including 150 videos from TikTok and 150 videos from Bilibili. All videos were screened according to predefined inclusion and exclusion criteria.

The inclusion criteria were:(1) videos primarily focused on gingival recession;(2) videos presented in Chinese;(3) videos containing educational information regarding gingival recession, including clinical manifestations, etiology, risk factors, prevention, or treatment; and

(4) videos publicly available and uploaded for at least 1 week before data collection.

The exclusion criteria were:(1) duplicate videos;(2) videos unrelated to gingival recession;(3) advertisements, commercial promotions, or product marketing videos;(4) videos with less than 1 week of online exposure before data collection; and(5) non-Chinese videos.After screening, 184 videos were included in the final analysis.

2.3 Data extraction and video characteristics

For each included video, the following characteristics were extracted: platform source, uploader category, video duration, number of likes, collections, comments, and shares, and discussed topics.

Uploader categories were classified into four groups:(1) professional healthcare providers (PHCPs; e.g., periodontist, endodontist) ;(2) non-professional healthcare providers (NPHCPs; e.g., orthodontist, prosthetist);(3) healthcare institutions; and(4) individual users.

The discussed topics were categorized into five domains:(1) clinical manifestations;(2) etiology;(3) risk factors;(4) treatment; and(5) prevention.All engagement metrics were recorded at the time of data collection.

2.4 Video evaluation and scoring criteria

Two dentists independently evaluated all videos after calibration. Disagreements were resolved by a senior dentist with more than 15 years of clinical experience. Quality assessment included GQS, mDISCERN, and JAMA benchmark criteria. Detailed criteria are provided in Supplementary Tables S1-S3.

2.5 Statistical analysis

Statistical analysis was performed using R version 4.3.2. Non-parametric variables were expressed as median and IQR. Mann–Whitney U tests, Kruskal–Wallis tests with Dunn post hoc comparisons, and Spearman correlation analyses were applied. A two-sided $P < 0.05$ was considered statistically significant.

3. Results

3.1 Baseline characteristics of included videos

A total of 300 videos were initially retrieved from TikTok and Bilibili platforms, with 150 videos collected from each platform. After applying the predefined inclusion and exclusion criteria, 184 videos were included in the final analysis. Among these, 109 videos (59.24%) were from TikTok and 75 videos (40.76%) were from Bilibili (Fig. 1).

Regarding uploader categories, individual users accounted for the largest proportion (92/184, 50.00%), followed by professional healthcare providers (43/184, 23.37%), non-professional healthcare providers (31/184, 16.85%), and healthcare institutions (18/184, 9.78%).Fig. 2a

The distribution of content domains is presented in Fig. 2b. Clinical manifestations were the most frequently covered topic (140/184, 76.09%), followed by treatment (133/184, 72.28%), etiology (124/184, 67.39%), and prevention (94/184, 51.09%). Risk factors were the least frequently mentioned domain (18/184, 9.78%).

The median duration of included videos was 96.50 s (IQR: 65.75–256.50). The median engagement metrics were 59.00 likes (IQR: 18.50–283.75), 38.00 saves (IQR: 12.75–290.00), 6.50 comments (IQR: 1.00–43.25), and 9.00 shares (IQR: 2.50–72.00).

The median content completeness score was 3.00 (IQR: 2.00–4.00). The median scores of GQS, mDISCERN, and JAMA were all 2.00. Detailed characteristics and assessment outcomes are summarized in Table 1.

3.2 Comparison of video characteristics between TikTok and Bilibili

As shown in Table 2, videos from Bilibili were significantly longer than those from TikTok (258.0 s [IQR: 101.0–425.5] vs. 79.0 s [IQR: 53.0–104.0], $P < 0.001$).Compared with TikTok videos, Bilibili videos showed significantly higher engagement metrics, including likes (164.0 vs. 33.0, $P < 0.001$), saves (160.0 vs. 22.0, $P < 0.001$), comments (34.0 vs. 5.0, $P = 0.018$), and shares (38.5 vs. 5.0, P < 0.001).Bilibili videos achieved higher scores in GQS (P < 0.001), mDISCERN ($P = 0.004$), and JAMA ($P < 0.001$). Treatment-related information was more frequently presented on Bilibili than on TikTok (85.33% vs. 63.30%, $P < 0.001$), whereas etiology-related information was more frequently covered on TikTok (73.39% vs. 58.67%, $P = 0.036$).No significant differences were observed between the two platforms in content completeness, clinical manifestations, prevention, or risk factors (all $P > 0.05$).

3.3 Comparison of video characteristics by uploader category

The characteristics and quality assessment results of videos stratified by uploader category are presented in Table 3.No significant difference was observed in video duration among the four uploader

categories (median duration: 126.00 s [IQR: 66.00–250.00], 85.50 s [IQR: 64.00–199.75], 208.50 s [IQR: 83.75–329.50], and 101.00 s [IQR: 71.00–249.50], respectively; *P = 0.221*).

Significant differences were identified among uploader categories regarding user engagement metrics.The median number of likes was 74.00 (IQR: 27.00–357.50), 32.50 (IQR: 15.00–104.25), 25.50 (IQR: 8.25–144.50), and 235.00 (IQR: 61.50–1701.00) for the four uploader groups, respectively (*P < 0.001*).Similar significant differences were observed for saves (41.00 [IQR: 14.00–175.00], 23.00 [IQR: 10.00–104.75], 30.50 [IQR: 8.00–142.25], and 280.00 [IQR: 39.50–1105.50]; *P < 0.001*), comments (12.00 [IQR: 1.00–68.50], 4.00 [IQR: 1.00–26.50], 2.00 [IQR: 0.00–30.75], and 31.00 [IQR: 6.50–164.50]; *P < 0.001*), and shares (17.00 [IQR: 5.00–93.50], 5.00 [IQR: 1.00–25.00], 7.00 [IQR: 2.00–37.00], and 73.00 [IQR: 12.50–371.00]; *P < 0.001*).Post hoc analysis showed that videos uploaded by professional healthcare providers had significantly higher engagement metrics than those uploaded by other uploader categories.

Quality assessment scores also differed significantly among uploader categories. Professional healthcare providers showed higher GQS, mDISCERN, and JAMA scores compared with other uploader groups (all *P < 0.001*).

3.4 Correlation analysis between video features, engagement metrics, and quality scores

Spearman rank correlation analysis was performed to evaluate the associations between video characteristics, engagement metrics, and quality assessment scores (Fig. 4).Video duration demonstrated weak positive correlations with content completeness score (ρ = 0.28, *P < 0.001*), GQS (ρ = 0.31, *P < 0.001*), and JAMA score (ρ = 0.23, *P < 0.001*).No significant correlations were observed between video duration and engagement metrics, including likes (ρ = 0.08), saves (ρ = 0.12), comments (ρ = 0.08), and shares (ρ = 0.12).All engagement indicators, including likes, saves, comments, and shares, were significantly positively correlated with each other (all *P < 0.001*).In contrast, correlations between engagement metrics and quality assessment scores were weak.GQS was not significantly correlated with likes (ρ = 0.04), saves (ρ = 0.07), comments (ρ = 0.08), or shares (ρ = 0.05).Similarly, mDISCERN and JAMA scores showed weak or non-significant correlations with engagement metrics.

4. Discussion

4.1 Main findings

With the increasing accessibility of social media platforms, short-form videos have become an important source of health information for the public[9, 10]. This cross-sectional study systematically evaluated the quality, reliability, and content completeness of Chinese-language educational videos on gingival recession available on TikTok and Bilibili.

Among the 184 included videos, individual users represented the largest uploader category, whereas professional healthcare providers accounted for only 23.37% of available videos. Clinical manifestations,

treatment approaches, and etiology were the most frequently discussed topics, while risk factors were rarely addressed. Overall, the quality of gingival recession educational videos remained suboptimal, with median GQS, mDISCERN, and JAMA scores of 2, indicating substantial opportunities for improvement in online oral health education[24, 25].

Significant differences were identified between platforms. Compared with TikTok, Bilibili videos were longer and achieved higher scores in GQS, mDISCERN, and JAMA criteria. Videos uploaded by professional healthcare providers also demonstrated higher user engagement than those uploaded by other groups. However, user engagement metrics were not significantly associated with information quality, suggesting that popularity indicators alone cannot reliably reflect the accuracy, reliability, or educational value of social media-based oral health information.

4.2 Quality and content completeness of gingival recession educational videos

Although social media provides an accessible platform for disseminating oral health information[9, 10], the present findings indicate that the educational value of gingival recession-related videos remains suboptimal. Although many videos addressed basic disease recognition and treatment options, important aspects required for comprehensive patient education were frequently absent. Gingival recession is a common periodontal condition characterized by apical displacement of the gingival margin, which may lead to root exposure, dentin hypersensitivity, aesthetic concerns, and increased susceptibility to cervical root caries[1–3]. Therefore, effective public education should not be limited to explaining clinical manifestations and available treatments but should also incorporate information regarding disease etiology, modifiable risk factors, preventive approaches, and evidence-based management strategies.

In this study, clinical manifestations and treatment were among the most frequently discussed topics, whereas risk factors were rarely mentioned. This distribution suggests that current online information regarding gingival recession may focus predominantly on disease recognition and therapeutic solutions, while preventive awareness and risk modification remain insufficient. Given that prevention and early intervention are essential components of periodontal health management[26], future educational videos provide more comprehensive information covering disease mechanisms, risk assessment, prevention, and patient-oriented self-care strategies. Such improvements may enhance public understanding and support more effective periodontal health behaviors[26].

4.3 Differences between TikTok and Bilibili

The present study identified significant differences in video characteristics and quality between TikTok and Bilibili. Compared with TikTok, Bilibili videos were significantly longer and achieved higher scores across multiple quality assessment dimensions.

These differences may partly reflect variations in platform characteristics, user preferences, and content production patterns. Bilibili has traditionally been associated with knowledge-oriented and relatively long-form content, which may allow creators to provide more detailed explanations and structured presentations[28]. In contrast, TikTok emphasizes rapid content consumption and algorithm-driven dissemination, which may favor concise and highly engaging videos[29].

Previous studies evaluating online medical information have also demonstrated differences in information quality across social media platforms[30]. Collectively, these findings suggest that platform characteristics may influence not only how health information is distributed but also how much detail and educational depth can be incorporated into digital health communication..

4.4 Association between uploader category and video characteristics

Uploader characteristics represent an important factor associated with the dissemination and reception of health information on social media platforms[31]. In this study, videos uploaded by professional healthcare providers demonstrated significantly higher engagement levels, including likes, collections, comments, and shares, compared with videos uploaded by other groups.

One possible explanation is that healthcare professionals generally possess greater clinical expertise and experience, enabling them to provide more structured explanations and address disease-related concerns more accurately[32, 33].

However, professional healthcare providers accounted for less than one-quarter of all included videos. This indicates that a considerable proportion of gingival recession educational videos are produced by non-professional users. Although user-generated content contributes to broad dissemination of health information, insufficient professional involvement may increase the risk of incomplete or inaccurate information.In addition, information originating from professional sources may increase users' perceived credibility and willingness to interact with the content[34, 35].

Nevertheless, professional healthcare providers represented only 23.37% of the included videos, indicating that most gingival recession-related content was generated by non-professional users. Although user-generated content contributes to wider dissemination of oral health information, limited professional involvement may increase the possibility of incomplete explanations or inaccurate health messages being delivered to the public[14].

Therefore, encouraging dental professionals to participate actively in social media-based health education is important[36]. Future efforts should focus not only on increasing professional participation but also on improving science communication skills, accessibility of presentation, and audience-oriented information delivery.

4.5 Relationship between video characteristics, user engagement, and information quality

A key finding of this study was the discrepancy between user engagement and information quality. Although engagement indicators were strongly correlated with each other, they showed limited associations with the quality and reliability of gingival recession educational videos.

The correlation analysis demonstrated strong positive relationships among likes, collections, comments, and shares. In particular, likes showed very strong correlations with collections (ρ = 0.97) and shares (ρ = 0.95), suggesting that videos attracting greater attention are more likely to stimulate multiple types of user interaction simultaneously[37]. This pattern may reflect the interconnected nature of social media dissemination, in which highly visible content receives greater opportunities for further exposure.

However,higher engagement did not correspond to higher informational quality. Likes, collections, comments, and shares showed negligible correlations with GQS, mDISCERN, and JAMA scores. For example, likes showed minimal correlations with GQS (ρ = 0.04), mDISCERN (ρ = 0.10), and JAMA scores (ρ = 0.04). These findings suggest that engagement metrics should not be interpreted as surrogate markers of medical accuracy, reliability, or educational value[16].

The discrepancy between popularity and quality may be related to the mechanisms underlying social media content distribution. Most platforms rely heavily on user behavioral signals, such as interaction frequency and sharing activity, rather than evaluating scientific validity or completeness of health information. Consequently, evidence-based oral health information may not always achieve greater visibility than simplified or emotionally appealing content[38].

Video duration showed weak but significant positive correlations with content completeness (ρ = 0.28), GQS (ρ = 0.31), and JAMA scores (ρ = 0.23). Longer videos may provide more opportunities for detailed explanation; however, the relatively weak correlations indicate that duration alone does not determine information quality[39]. Instead, content structure, scientific accuracy, and appropriate interpretation of evidence remain central determinants of high-quality oral health communication.

The present study also identified consistent relationships among different quality assessment instruments. Content completeness demonstrated a strong correlation with GQS (ρ = 0.70), while GQS showed moderate correlations with mDISCERN and JAMA scores. These findings suggest that videos containing more complete information are more likely to achieve higher overall educational quality and reliability assessments. Improving content completeness may therefore represent a practical approach to strengthening digital oral health education.

5. Limitations

Several limitations should be considered when interpreting the findings of this study. First, only TikTok and Bilibili were evaluated; therefore, the findings may not represent all social media platforms. Second, although a newly created account was used to minimize algorithm-related bias, influence of previous browsing history and personalized recommendations, algorithm-based content delivery may still have affected video exposure to some extent. Third, this study focused on publicly available videos at a single time point, and changes in video availability and user engagement over time were not considered. Fourth, although standardized assessment tools and independent evaluations by trained clinicians were applied, subjective interpretation during quality assessment could not be completely eliminated. Finally, this study focused on the characteristics and informational quality of online videos rather than their actual impact on viewers. Future studies incorporating user surveys or behavioral assessments are needed to determine whether exposure to such content influences patients' oral health knowledge, attitudes, and decision-making

6. Conclusion

Chinese-language gingival recession-related videos available on TikTok and Bilibili showed moderate overall informational quality but lacked sufficient discussion of preventive measures and risk-related information. Videos created by professional healthcare providers and those published on Bilibili tended to achieve higher quality scores, whereas user engagement indicators were not associated with the reliability or educational value of the content. These findings highlight the need for greater professional involvement and improved content strategies to support accurate and comprehensive oral health communication through short-video platforms.

Declarations

Ethics approval and consent to participate

Not applicable. This study used publicly accessible videos and did not involve

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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Author Contribution

Y.W. conceived and designed the study, performed data collection, wrote the main manuscript text, and prepared the figures and tables. R.Y.H. performed data analysis and statistical analysis. Q.L. conceived and designed the study, performed data analysis, prepared the figures and tables, and critically revised and edited the manuscript. All authors reviewed and approved the final manuscript.

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Data Availability

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

References

1. Kassab MM, Cohen RE. The etiology and prevalence of gingival recession. J Am Dent Assoc. 2003;134(2):220–5.
2. West NX, Davies M, Sculean A, et al. Prevalence of dentine hypersensitivity, erosive tooth wear,gingival recession and periodontal health in seven European countries. J Dent. 2024;150:105364.
3. Cortellini P, Bissada NF. Mucogingival conditions in the natural dentition: narrative review, case definitions, and diagnostic considerations. J Periodontol. 2018;89(Suppl 1):S204–13.
4. Cairo F. Periodontal plastic surgery of gingival recessions at single and multiple teeth. Periodontol 2000. 2017;75(1):296–316.
5. Sabri H, SamavatiJame F, Sarkarat F, et al. Clinical efficacy of Vestibular Incision Subperiosteal Tunnel Access (VISTA) for treatment of multiple gingival recession defects: a systematic review, meta-analysis and meta-regression. Clin Oral Investig. 2023;27(12):7171–87.
6. Ariceta A, Chambrone L, Stuhr S, et al. Effect of suturing in root coverage via coronally advanced flaps: a systematic review. Clin Adv Periodontics. 2025;15(2):179–90.
7. Suarez-Lledo V, Alvarez-Galvez J. Prevalence of Health Misinformation on Social Media: systematic review. J Med Internet Res. 2021;23(1):e17187.
8. Chen F, Tay T, Thould H, et al. The Impact of Social Media Videos on Quantitative Health Outcomes: systematic review. JMIR Infodemiology. 2026;6:e77578.
9. Elkefı S. Exploring Predictors of Social Media Use for Health and Wellness during COVID-19 among Adults in the US: a social cognitive theory application. Healthc (Basel). 2023;12(1).

10. Basch CH, Hillyer GC, Yalamanchili B, et al. How TikTok Is Being Used to Help Individuals Cope With Breast Cancer: cross-sectional content analysis. JMIR Cancer. 2022;8(4):e42245.
11. Jeyaraman M, Ramasubramanian S, Kumar S, et al. Multifaceted Role of Social Media in Healthcare: opportunities, challenges, and the need for quality control. Cureus. 2023;15(5):e39111.
12. Yan T, Su C, Xue W, et al. Mobile phone short video use negatively impacts attention functions: an EEG study. Front Hum Neurosci. 2024;18:1383913.
13. Kbaier D, Kane A, McJury M, et al. Prevalence of Health Misinformation on Social Media: challenges and mitigation before, during, and beyond the COVID-19 pandemic: scoping literature review. J Med Internet Res. 2024;26:e38786.
14. Osman W, Mohamed F, Elhassan M, et al. Is YouTube a reliable source of health-related information? a systematic review. BMC Med Educ. 2022;22(1):382.
15. O'Kelly B, Holmes P, Cheng A, et al. Dissemination of health content through social networks: YouTube and opioid use disorders. J Subst Use Addict Treat. 2024;165:209475.
16. Qi X, Lu Q, Li B, et al. Videos in short video sharing platforms as a source of information on bipolar disorder: a cross-sectional content analysis study. Front Public Health. 2025;13:1627885.
17. Liu M, Wang Z, Jiang X. The quality and reliability of short videos about amblyopia on TikTok and Bilibili: cross-sectional study. Sci Rep. 2025;16(1):1946.
18. Wu J, Wu G, Che X, et al. The quality and reliability of short videos about hypertension on TikTok: a cross-sectional study. Sci Rep. 2025;15(1):25042.
19. Cai F, Zou J, Gao W. Quality, reliability, and content completeness of Chinese-language short videos on impacted wisdom teeth on TikTok and Bilibili: a cross-sectional study. BMC Oral Health. 2026;26(1):1216.
20. Bozoklu B, Demir N, Akbaş M, et al. The quality and reliability of YouTube video content about gingival recession on different time periods. PeerJ. 2025;13:e19653.
21. Bernard A, Langille M, Hughes S, et al. A systematic review of patient inflammatory bowel disease information resources on the World Wide Web. Am J Gastroenterol. 2007;102(9):2070–7.
22. Charnock D, Shepperd S, Needham G, et al. DISCERN: an instrument for judging the quality of written consumer health information on treatment choices. J Epidemiol Community Health. 1999;53(2):105–11.
23. Silberg WM, Lundberg GD, Musacchio RA. Assessing, controlling, and assuring the quality of medical information on the Internet: Caveant lector et viewor–let the reader and viewer beware. JAMA. 1997;277(15):1244–5.
24. Farrokhi F, Ghorbani Z, Farrokhi F, et al. Social media as a tool for oral health promotion: a systematic review. PLoS ONE. 2023;18(12):e296102.
25. 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):e349–54.

26. Merijohn GK. Management and prevention of gingival recession. Periodontol 2000. 2016;71(1):228–42.
27. Yadav VS, Gumber B, Makker K, et al. Global prevalence of gingival recession: a systematic review and meta-analysis. Oral Dis. 2023;29(8):2993–3002.
28. Han L, Liu F, Wang Z et al. Quality and reliability of weight management short videos on TikTok and Bilibili: cross-sectional study. Sci Rep. 2026;16(1).
29. Basch CH, Hillyer GC, Jaime C. COVID-19 on TikTok: harnessing an emerging social media platform to convey important public health messages. Int J Adolesc Med Health. 2022;34(5):367–9.
30. Cheng B, Shi W, Wang S, et al. Evaluating the quality and reliability of hepatitis B-related short videos on BiliBili and TikTok: a cross-sectional study. Inquiry. 2026;63:1397932134.
31. Liu H, Peng J, Li L, et al. Assessment of the reliability and quality of breast cancer related videos on TikTok and Bilibili: cross-sectional study in China. Front Public Health. 2023;11:1296386.
32. Zhu Y, Jiang L, Zhu N, et al. The quality and reliability of short videos about amblyopia on Bilibili and TikTok: a cross-sectional study. Digit Health. 2026;12:620082665.
33. Hashim A, Shivappa AB. Evaluation of popularity, reliability, and quality of dental and oral microbiology videos on YouTube as sources of dental education. Int J Dent. 2026;2026:1509354.
34. Niu Y, Song G, Niu Z, et al. Quality and reliability of transarterial chemoembolization videos on TikTok and Bilibili: cross-sectional content analysis study. JMIR Form Res. 2025;9:e73855.
35. Riyaz MM, Gousalya V, Anu V, et al. Oral health misinformation on YouTube: a content analysis. J Pharm Bioallied Sci. 2024;16(Suppl 5):S4507–10.
36. Guo F, Ding G, Zhang Y, et al. Quality assessment of radiotherapy health information on short-form video platforms of TikTok and Bilibili: cross-sectional study. JMIR Cancer. 2025;11:e73455.
37. Gabarron E, Larbi D, Dorronzoro E, et al. Factors engaging users of diabetes social media channels on Facebook, Twitter, and Instagram: observational study. J Med Internet Res. 2020;22(9):e21204.
38. Wang Y, McKee M, Torbica A, et al. Systematic literature review on the spread of health-related misinformation on social media. Soc Sci Med. 2019;240:112552.
39. Madathil KC, Rivera-Rodriguez AJ, Greenstein JS, et al. Healthcare information on YouTube: a systematic review. Health Inf J. 2015;21(3):173–94.

Tables

Table 1 to 3 are available in the Supplementary Files section.

Figures

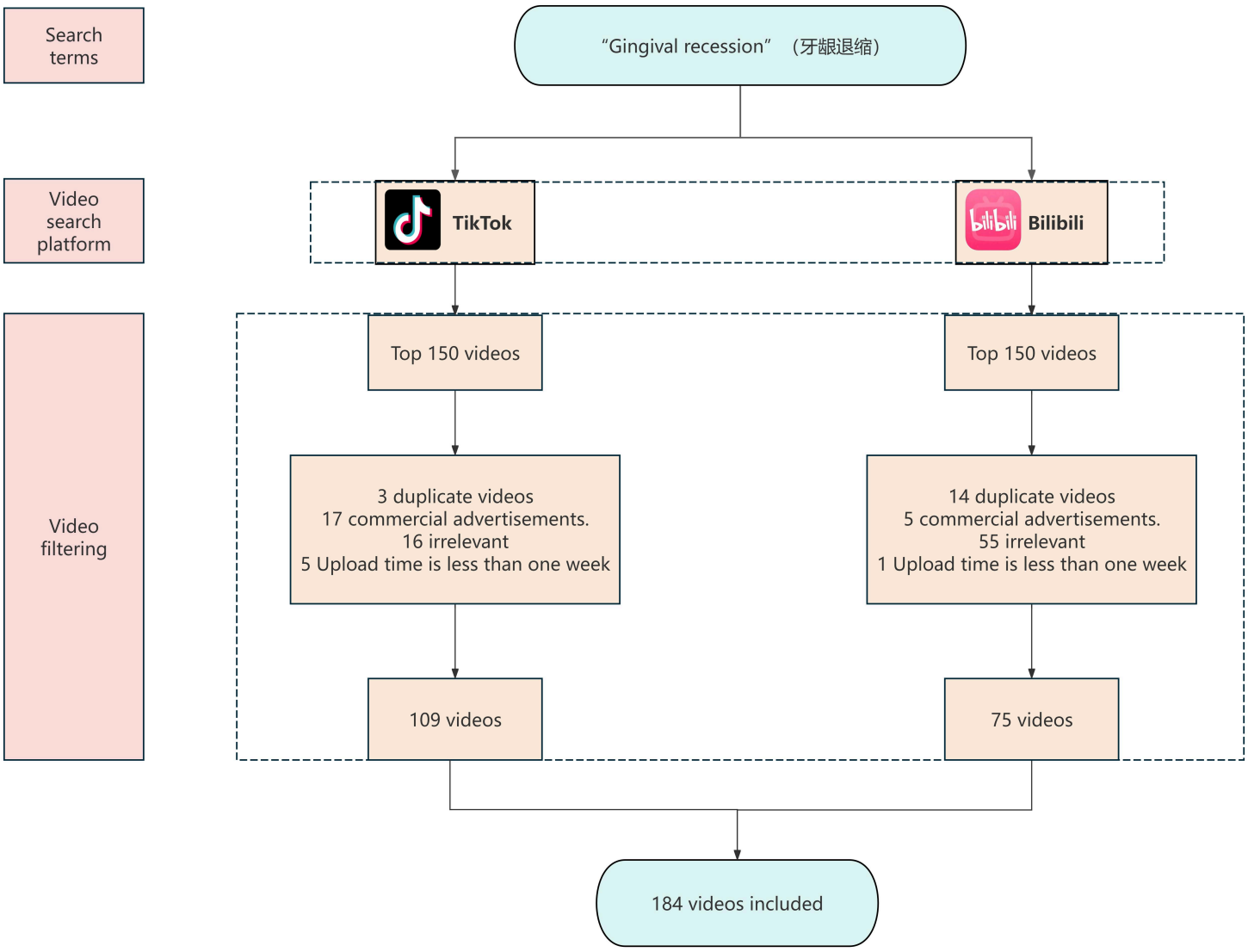


Figure 1

Flow diagram of video identification and selection process. Videos were retrieved using the search term "gingival recession" ("□□□□") on TikTok and Bilibili. The top 150 videos from each platform were screened according to predefined eligibility criteria. Videos were excluded if they were duplicates, unrelated to gingival recession, commercial advertisements, uploaded less than one week before data collection, or not in Chinese. Finally, 184 videos were included in the analysis, including 109 videos from TikTok and 75 videos from Bilibili.

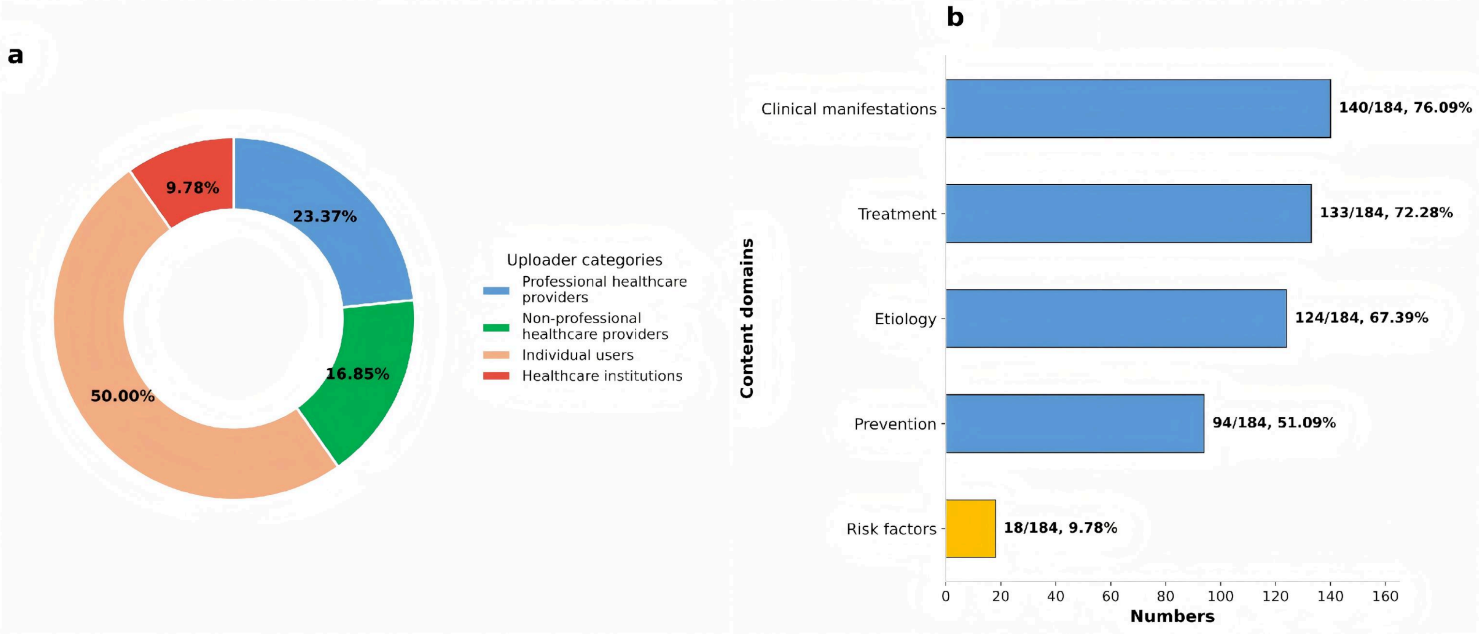


Figure 2

Distribution of uploader categories and content domains among gingival recession-related videos included in the study.

(a) Distribution of uploader categories. Videos were classified into four groups: professional healthcare providers (PHCPs), non-professional healthcare providers (NPHCPs), individual users (IUs), and healthcare institutions (HIs).

(b) Frequency of predefined content domains covered in gingival recession-related videos, including clinical manifestations, treatment, etiology, prevention, and risk factors.

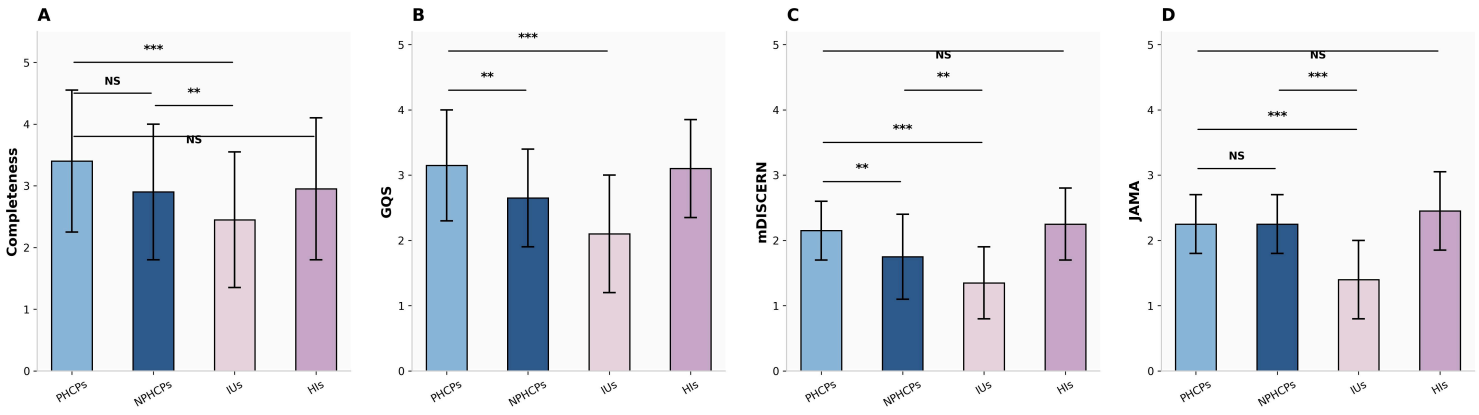


Figure 3

Comparison of video quality and content completeness among different uploader categories. (A) Completeness score; (B) Global Quality Scale (GQS) score; (C) modified DISCERN (mDISCERN) score; and (D) JAMA benchmark criteria score. PHCPs, professional healthcare providers; NPHCPs, non-

professional healthcare providers; IUs, individual users; HIs, healthcare institutions. P values were derived from Kruskal–Wallis tests with Dunn post hoc comparisons. *P < 0.05, **P < 0.01, ***P < 0.001, NS = not significant.

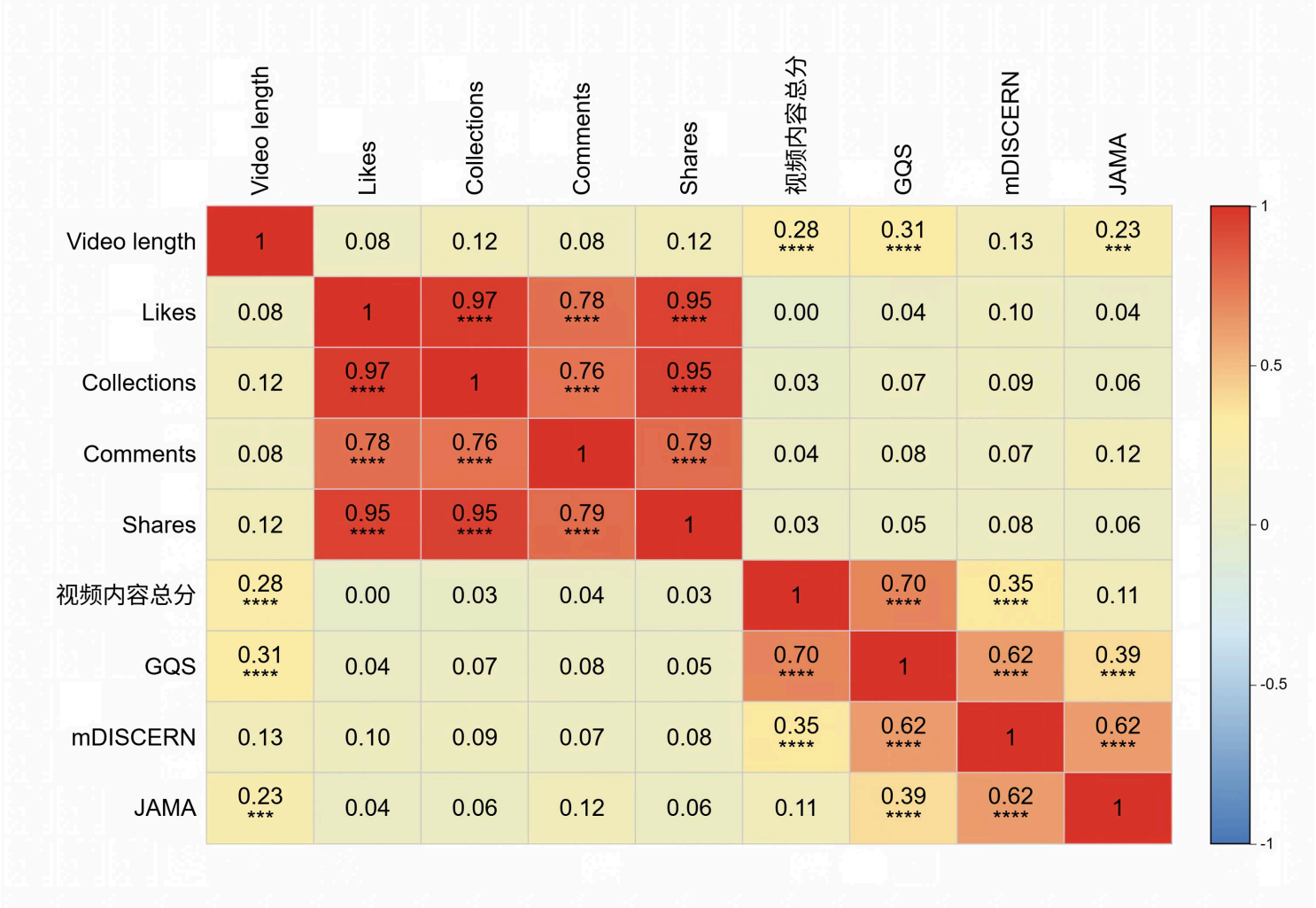


Figure 4

Spearman correlation heatmap of video characteristics, engagement metrics, and quality assessment scores. Correlation coefficients (ρ) are displayed in each cell. Statistical significance is indicated by asterisks: *P < 0.05, **P < 0.01, ***P < 0.001, ****P < 0.0001. Video duration showed weak positive correlations with content completeness (ρ = 0.28), GQS (ρ = 0.31), and JAMA (ρ = 0.23). All engagement metrics (likes, saves, comments, shares) were strongly correlated with each other, but showed weak or non-significant associations with quality scores.

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- Table1.docx

- Table2.docx
- Table3.docx
- TableS1.docx
- TableS2.docx
- TableS3.docx