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Assessing the Quality and Reliability of Colorectal Cancer–Related Short Videos on TikTok and Bilibili: A Cross-Sectional Study

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Abstract

Objective

This study aimed to evaluate the quality and reliability of CRC-related short videos on TikTok and Bilibili and to compare differences across platforms and uploader categories.

Methods

A cross-sectional study was conducted to analyze 182 CRC-related short videos retrieved from TikTok and Bilibili. Video characteristics and audience engagement metrics were collected. The Global Quality Score (GQS), modified DISCERN (mDISCERN) tool, and Journal of the American Medical Association (JAMA) benchmark criteria were used for evaluation. Statistical analyses included the Mann–Whitney U test, Kruskal–Wallis H test, and Spearman correlation analysis.

Results

The overall quality and reliability of CRC-related videos were moderate. TikTok videos achieved higher JAMA scores than those on Bilibili ($p < 0.05$), indicating greater transparency. Videos uploaded by colorectal surgeons showed significantly higher mDISCERN and JAMA scores than those by individual users ($p < 0.05$). Most videos focused on treatment (64.3%) and diagnosis (59.3%), while preventive and etiological content was underrepresented (< 20%). Audience engagement showed weak correlations with video quality and reliability.

Conclusions

Short-video platforms serve as valuable tools for disseminating CRC-related health information but require improvement in scientific rigor and professionalism. Increasing healthcare professional participation and implementing platform-level quality oversight are essential to enhance the reliability and educational value of online health content.

Introduction

Colorectal cancer (CRC) is one of the most common malignant tumors worldwide and remains a leading cause of cancer-related morbidity and mortality(1). According to the *Global Cancer Statistics*, CRC ranks third in incidence and second in mortality among all cancers(2). Its incidence has continued to rise over the past few decades, with a particularly marked increase among younger populations,a trend of “early-onset CRC” that has attracted growing attention in the field of public health(3, 4). The development of CRC is closely associated with multiple risk factors, including high-fat diets, physical inactivity, obesity, alcohol consumption, smoking, and a family history of colorectal neoplasia(5). The disease often begins

insidiously, with nonspecific or absent symptoms in the early stage, leading many patients to be diagnosed at an advanced stage and consequently facing a poor prognosis(6). Although advances in screening technologies and therapeutic strategies such as colonoscopy, fecal occult blood testing (FOBT), and targeted therapy have significantly improved patient survival(7, 8), public awareness of early screening and prevention remains insufficient(9).

Extensive research has demonstrated that health education, public awareness of cancer prevention, and the promotion of healthy lifestyles are key strategies for reducing both the incidence and mortality of CRC(10, 11). Therefore, enhancing public understanding of CRC and disseminating scientific health information through accessible and engaging media platforms hold substantial social significance and practical value.

In recent years, the rapid development of social media has profoundly transformed the way the public accesses health information(12). Short-video platforms such as TikTok and Bilibili have become important tools for health education due to their engaging formats, strong interactivity, and wide reach(13). These platforms can disseminate medical knowledge quickly and efficiently, enabling patients, caregivers, and the general public to obtain health-related information conveniently(14).However, the lack of professional review and regulatory oversight has raised widespread concerns regarding the accuracy and reliability of medical information shared on these platforms(15). Previous studies have shown that health-related videos often contain incomplete, biased, or even misleading information, which may negatively influence public understanding and health behaviors(14, 16). Therefore, ensuring the quality and reliability of medical information disseminated through short-video platforms has become a pressing challenge in the field of health communication.

Although the number of colorectal cancer (CRC) related videos on TikTok and Bilibili has been steadily increasing, systematic evaluations of such short videos remain limited. Given the high prevalence and preventable nature of CRC, it is necessary to conduct a comprehensive assessment of the quality and reliability of CRC-related content available on major short-video platforms.

Therefore, this study aimed to evaluate the quality and reliability of colorectal cancer–related videos on TikTok and Bilibili using three validated assessment tools: the Global Quality Score (GQS), the modified DISCERN (mDISCERN) instrument, and the Journal of the American Medical Association (JAMA) benchmark criteria. Furthermore, we compared differences across platforms and uploader categories and explored the correlations between audience engagement metrics and video quality scores. The findings of this study are expected to provide valuable insights for improving the dissemination and supervision of high-quality, evidence-based colorectal cancer information on social media.

Methods

Data source

This cross-sectional study systematically collected short videos related to colorectal cancer on TikTok and Bilibili between October 20 and October 26, 2025.To minimize the influence of personalized recommendation algorithms, all searches were performed under logged-out and incognito conditions. The keyword “□□□□” (“colorectal cancer”) was entered into the search bar of each platform, and the top 100 videos ranked by the default comprehensive sorting algorithm were initially retrieved for screening.After applying the inclusion and exclusion criteria, a total of 182 videos were included in the final analysis.The detailed selection process is illustrated in Fig. 1.

Inclusion and exclusion criteria

Videos were included if they met the following criteria:(1) primarily focused on colorectal cancer–related information;(2) presented in Chinese language; (3) were publicly accessible at the time of data collection.Videos were excluded if they met any of the following criteria:(1) irrelevant content, not directly related to colorectal cancer; or(2) duplicate videos (same content uploaded by the same or different users).

Data collection

The included videos were analyzed across multiple dimensions, including video duration and audience engagement indicators such as the number of likes, comments, favorites, and shares.Uploaders were categorized into three groups: colorectal surgeons, other specialists, and individual users. The “other specialists” group included oncologists, traditional Chinese medicine (TCM) physicians, cardiologists, and pathologists.Video content was classified into core thematic categories, including epidemiology, etiology, clinical manifestations, diagnosis, and prevention, based on the primary information conveyed in each video.

Quality and reliability assessment

To evaluate the quality and reliability of the included short videos, three validated assessment tools were employed: the Global Quality Score (GQS), the modified DISCERN (mDISCERN) instrument, and the Journal of the American Medical Association (JAMA) benchmark criteria.

The GQS evaluates the overall educational quality and usefulness of health-related videos on a 5-point scale, where 1 indicates poor quality and 5 indicates excellent quality(17).The mDISCERN assesses the reliability of information based on five key questions, including clarity of aims, relevance of information sources, balance and bias, reference citation, and acknowledgment of uncertainty, with higher scores indicating greater reliability(18).The JAMA benchmark criteria measure information transparency through four domains: authorship, attribution, disclosure, and currency. Each criterion is scored 1 point if present, resulting in a total possible score of 0–4, with higher scores indicating better transparency and source accountability(19).

All videos were independently evaluated by two reviewers with medical backgrounds who were trained in the use of these tools prior to data collection. Any discrepancies in scoring were resolved through discussion with a third senior reviewer.

Statistical analysis

All statistical analyses were performed using SPSS version 27.0 (IBM Corp., Armonk, NY, USA) and R version 4.4.0 (R Foundation for Statistical Computing, Vienna, Austria).

Descriptive statistics were used to summarize the basic characteristics of the videos, and non-normally distributed data were expressed as median and interquartile range (IQR). Given the non-normal distribution of the data, non-parametric tests were applied for group comparisons. The Mann–Whitney U test was used to compare two independent groups, and the Kruskal–Wallis H test was used for comparisons among three or more groups.Subgroup comparisons were prespecified for platform (TikTok vs. Bilibili) and uploader category (colorectal surgeons, other specialists, and individual users), and no further interaction analyses were performed.After screening, all variables were complete; therefore, no imputation or missing-data handling methods were required.This study was based on publicly accessible short videos retrieved through keyword searches on TikTok and Bilibili and did not involve random or stratified cluster sampling.

To verify the robustness of the findings, a sensitivity analysis was conducted by repeating the main comparisons after excluding the top 1% of videos ranked by audience engagement metrics. The significance and direction of the results remained unchanged.

Additionally, Spearman rank correlation analysis was performed to explore the relationships between audience engagement indicators (likes, comments, favorites, shares, and video length) and the quality and reliability scores (GQS, mDISCERN, and JAMA). All statistical tests were two-tailed, and a p-value < 0.05 was considered statistically significant.

Results

Video characteristics

After applying the inclusion and exclusion criteria, a total of 182 videos were included in this study. The general characteristics of the videos, including duration and audience engagement metrics (likes, comments, collections, and shares), are summarized in Table 1. The median duration of the videos was 145.00 s (IQR: 83.25–537.25). Overall, these videos exhibited high audience engagement, with a median of 200.00 likes (IQR: 21.00–1472.50), 111.50 collections (IQR: 23.00–497.00), 19.00 comments (IQR: 1.00–167.25), and 42.00 shares (IQR: 7.00–261.00).

Table 1
General characteristics, content distribution, and quality and reliability scores of colorectal cancer–related short videos.

Variables	**Total (n = 182)**
General information	
Video length(s),M (Q1,Q3)	145.00 (83.25, 537.25)
Likes,M (Q1,Q3)	200.00 (21.00, 1472.50)
Collections,M (Q1,Q3)	111.50 (23.00, 497.00)
Comments,M (Q1,Q3)	19.00 (1.00, 167.25)
Shares,M (Q1,Q3)	42.00 (7.00, 261.00)
Video content	
Epidemiology,n(%)	39(21.4%)
Etiology,n(%)	35(19.2%)
Clinical manifestation,n(%)	42(23.0%)
Diagnosis,n(%)	108(59.3%)
Treatment,n(%)	117(64.3%)
Prevention,n(%)	36(19.8%)
Video quality	
GQS score,M (Q1,Q3)	3.00 (3.00, 3.00)
mDISCERN score,M (Q1,Q3)	2.00 (2.00, 3.00)
JAMA score,M (Q1,Q3)	2.00 (2.00, 2.00)

Among all included videos, 96 were from TikTok and 86 were from Bilibili. As shown in Table 2, there were significant differences between the two platforms in terms of video duration and engagement metrics ($p < 0.001$). Bilibili videos were significantly longer (median: 524.50 s, IQR: 171.50–1293.00) than those on TikTok (median: 96.00 s, IQR: 57.50–141.25). However, TikTok videos demonstrated much higher audience engagement, achieving the highest median values for likes (1200.50, IQR: 410.75–2845.00), collections (311.00, IQR: 51.50–1218.75), comments (121.00, IQR: 32.00–307.00), and shares (152.00, IQR: 20.50–658.25). In contrast, Bilibili videos showed lower engagement scores across all metrics.

Table 2
General information, content characteristics, and quality and reliability scores of colorectal cancer–related short videos on TikTok and Bilibili.

Variables	**Bilibili (n = 86)**	**TikTok (n = 96)**	***P***
General information			
Video length(s),M (Q1,Q3)	524.50 (171.50, 1293.00)	96.00 (57.50, 141.25)	< .001
Likes,M (Q1,Q3)	23.00 (9.00, 102.25)	1200.50 (410.75, 2845.00)	< .001
Collections,M (Q1,Q3)	49.00 (14.50, 139.50)	311.00 (51.50, 1218.75)	< .001
Comments,M (Q1,Q3)	1.00 (0.00, 7.00)	121.00 (32.00, 307.00)	< .001
Shares,M (Q1,Q3)	17.00 (3.00, 51.00)	152.00 (20.50, 658.25)	< .001
Video content			
Epidemiology,n(%)	24(27.9)	15(15.6)	-
Etiology,n(%)	27(31.4)	8(8.3)	-
Clinical manifestation,n(%)	23(26.7)	19(19.8)	-
Diagnosis,n(%)	48(55.8)	60(62.5)	-
Treatment,n(%)	44(51.2)	73(76.0)	-
Prevention,n(%)	19(22.1)	17(17.7)	-
Video quality			
GQS score,M (Q1,Q3)	3.00 (3.00, 3.00)	3.00 (3.00, 3.00)	0.175
mDISCERN score,M (Q1,Q3)	2.00 (2.00, 3.00)	2.00 (2.00, 2.00)	0.175
JAMA score,M (Q1,Q3)	2.00 (1.00, 2.00)	2.00 (2.00, 2.00)	< .001

Table 3 further presents the characteristics of videos uploaded by different uploader categories. Significant differences were observed in all parameters ($p < 0.001$). Videos uploaded by individual users were markedly longer (median: 653.00 s, IQR: 167.50–1535.50) than those uploaded by colorectal surgeons or other specialists. Conversely, videos uploaded by colorectal surgeons and other specialists showed substantially higher engagement in terms of likes, comments, collections, and shares.

Table 3
Characteristics, quality, and reliability of colorectal cancer–related short videos uploaded by different uploader categories on TikTok and Bilibili.

Variables	Colorectal surgeon (n = 61)	Other Specialists(n = 50)	Individual users (n = 71)	*P*
Video length(s),M (Q1,Q3)	81.00 (52.00,111.00)	140.00 (98.50,203.75)	653.00 (167.50,1535.50)	< .001
Likes,M (Q1,Q3)	654.00 (144.00,1769.00)	1246.00 (170.00,2899.50)	27.00 (11.00,109.50)	< .001
Collections,M (Q1,Q3)	147.00 (23.00,488.00)	459.50 (88.25,1174.00)	50.00 (18.50,122.50)	< .001
Comments,M (Q1,Q3)	82.00 (14.00,276.00)	70.50 (15.00,224.50)	1.00 (0.00,7.50)	< .001
Shares,M (Q1,Q3)	79.50 (10.50,348.75)	140.50 (44.25,704.75)	17.00 (4.00,46.50)	< .001
GQS score,M (Q1,Q3)	3.00 (3.00,3.00)	3.00 (3.00,3.00)	3.00 (3.00,3.00)	0.248
mDISCERN score,M (Q1,Q3)	2.00 (2.00,2.00)	2.00 (2.00,3.00)	2.00 (2.00,3.00)	0.069
JAMA score,M (Q1,Q3)	2.00 (2.00,2.00)	2.00 (2.00,2.00)	2.00 (1.00,2.00)	< .001

Note: “Other Specialists” include oncologists, traditional Chinese medicine physicians, cardiologists, and hepatobiliary surgeons.

Uploader characteristics

As shown in Fig. 2a, among the 182 included videos, individual users accounted for the largest proportion (39.01%), followed by colorectal surgeons (33.52%) and other specialists (27.47%). This indicates that non-professional uploaders contributed a substantial share of colorectal cancer–related videos on short video platforms, suggesting an active participation of the general public in health content creation.

As shown in Fig. 2b,a further comparison between TikTok and Bilibili revealed distinct uploader distributions. On TikTok, colorectal surgeons dominated the uploads (57%), followed by other specialists (39%), whereas individual users accounted for only 4%. In contrast, Bilibili showed the opposite trend, with other specialists comprising the majority (78%), followed by colorectal surgeons (15%) and individual users (7%). This highlights that TikTok primarily features professional medical creators, while Bilibili exhibits a more diverse uploader composition, including a higher presence of non-professionals.

Video content

As shown in Tables 1, 2 and Fig. 3, the distribution of colorectal cancer–related video topics varied considerably across platforms. Overall, treatment (64.3%) and diagnosis (59.3%) were the most frequently discussed topics, followed by clinical manifestations (23.0%) and epidemiology (21.4%). In contrast, etiology (19.2%) and prevention (19.8%) were less frequently mentioned.

Platform-specific comparisons revealed distinct topic emphases between TikTok and Bilibili. On TikTok, the most frequently covered themes were treatment (76.0%) and diagnosis (62.5%). Whereas Bilibili exhibited a broader but less clinical orientation, with epidemiology (27.9%) and etiology (31.4%) appearing more often than on TikTok. Preventive content remained limited on both platforms (TikTok: 17.7%; Bilibili: 22.1%), highlighting a general lack of attention to preventive education.

Video quality and reliability

As shown in Table 1, the overall quality and reliability of colorectal cancer–related short videos were at a moderate level. The median GQS score was 3.00 (IQR: 3.00–3.00), the mDISCERN score was 2.00 (IQR: 2.00–3.00), and the JAMA score was 2.00 (IQR: 2.00–2.00).

As presented in Table 2 and Fig. 4a-4c, the overall levels of video quality and reliability were comparable between the two platforms. The median GQS score of videos on both TikTok and Bilibili was approximately 3, and the median mDISCERN score was around 2, with no statistically significant differences between the two platforms ($p > 0.05$). However, the JAMA score of TikTok videos was significantly higher than that of Bilibili, indicating better information transparency on TikTok.

As shown in Table 3 and Fig. 5a-5c, differences in video quality and reliability were also observed among uploader categories. The GQS scores did not differ significantly among colorectal surgeons, other specialists, and individual users ($p > 0.05$). In terms of mDISCERN, a significant difference was observed between videos uploaded by colorectal surgeons and those uploaded by individual users ($p < 0.05$), while other specialists showed no significant difference from either group. The JAMA scores varied significantly among uploaders ($p < 0.001$), with both colorectal surgeons and other specialists achieving higher scores than individual users, whereas no significant difference was found between the two professional groups.

Correlation analysis

Spearman’s rank correlation analysis was conducted to examine the relationships between audience engagement metrics (likes, collections, comments, and shares), video characteristics (video length), and quality and reliability scores (GQS, mDISCERN, and JAMA). The results are illustrated in Fig. 6.

As shown in the correlation heatmap, strong positive correlations were observed among the audience engagement indicators, particularly between likes and comments ($r = 0.94$), likes and collections ($r = 0.89$), and shares and collections ($r = 0.96$), indicating high internal consistency among engagement measures. However, correlations between engagement metrics and quality scores were generally weak.

A mild positive correlation was found between video length and both GQS (r = 0.34) and mDISCERN (r = 0.39). Similarly, mDISCERN and JAMA were moderately correlated (r = 0.46).

Discussion

This study systematically evaluated the content, quality, and reliability of 182 colorectal cancer (CRC) related short videos on TikTok and Bilibili. Overall, the videos demonstrated moderate quality and reliability. Although audience engagement was high, it showed no significant correlation with information quality. The majority of videos focused on treatment and diagnosis, while topics related to etiology and prevention received considerably less attention. Videos uploaded by colorectal surgeons achieved significantly higher mDISCERN and JAMA scores than those uploaded by individual users, underscoring the importance of professional participation in health information dissemination. These findings suggest that although social media has become an important channel for the public to access health information, the scientific accuracy and reliability of such content still require further improvement, highlighting the need for greater professional involvement and strengthened content regulation.

Analysis of the basic video characteristics revealed clear differences between the two platforms. TikTok videos were generally shorter in duration but achieved significantly higher audience engagement, whereas Bilibili videos were longer yet received lower levels of user interaction. This divergence likely reflects fundamental differences in platform algorithms and audience orientation. TikTok emphasizes visually dynamic, algorithm-driven short-form content designed for mass dissemination, while Bilibili favors longer, more detailed educational materials that appeal to users with higher informational or learning motivation(20).

Although the overall audience engagement was high, metrics such as likes, comments, collections, and shares did not necessarily indicate higher educational quality or information reliability. Both GQS and mDISCERN scores were at a moderate level, with median scores of approximately 3 and 2, respectively, showing no statistically significant difference between the two platforms ($p > 0.05$). This suggests that most videos did not achieve high standards of medical accuracy or structural completeness. Despite strong user participation,a proportion of videos contained biased, exaggerated, or inadequately referenced information, potentially contributing to public misunderstanding or misinformation.These findings are consistent with the study by Cao on cataract-related videos, which also reported that online health videos generally lack sufficient quality and reliability(21).

However, the JAMA score on TikTok was significantly higher than that on Bilibili ($p < 0.001$), indicating better transparency in authorship, source attribution, and date disclosure. As suggested by Wang's analysis of thyroid eye disease treatment videos, this difference may be attributed to TikTok's standardized content creation interface and verification system, which enhance creator identifiability and accountability(22). In contrast, Bilibili, while featuring longer and more academic videos, appears to lack consistency in disclosing author or institutional information. Therefore, achieving an appropriate balance

among transparency, informational depth, and accessibility will be essential for improving the educational value of CRC-related short videos in future digital health communication.

Notably, significant differences were observed among uploader categories in both video characteristics and information quality. Videos uploaded by colorectal surgeons and other specialists achieved significantly higher engagement metrics—including likes, collections, comments, and shares—than those uploaded by individual users (all $p < 0.001$). This pattern indicates that professionally produced content may achieve stronger audience engagement, possibly due to higher informational coherence, credibility, and presentation quality.

In terms of video quality and reliability, no significant differences were found in GQS scores among the three uploader groups ($p > 0.05$), indicating that the overall clarity and structural integrity of the videos were generally comparable. However, notable differences were observed in mDISCERN and JAMA scores. Videos uploaded by colorectal surgeons received significantly higher mDISCERN scores than those created by individual users ($p < 0.05$), reflecting superior information accuracy and referencing quality. Moreover, both colorectal surgeons and other specialists achieved significantly higher JAMA scores compared with individual users ($p < 0.001$), suggesting greater transparency in authorship, source attribution, and disclosure of information. This result is consistent with previous studies on short videos related to premature ovarian insufficiency and chronic pancreatitis, collectively indicating that the involvement of medical professionals is crucial for ensuring the scientific accuracy of health information disseminated on social media(23, 24).In contrast, individual users—who accounted for approximately 40% of all videos—may lack medical literacy, making them more prone to disseminating incomplete or biased information(25). Therefore, the establishment of structured collaborations between healthcare professionals and social media platforms, alongside the implementation of standardized quality control and regulatory mechanisms, is essential to promote high-quality, evidence-based health communication in the digital era.

Analysis of the video content revealed a notable thematic imbalance in colorectal cancer (CRC)–related information across TikTok and Bilibili. Most videos focused on treatment (64.3%) and diagnosis (59.3%), whereas content related to etiology, prevention, and early screening was markedly underrepresented. This finding is consistent with previous studies on cancer-related videos(16), which reported that online health content tends to emphasize therapeutic interventions rather than preventive strategies or lifestyle guidance. According to the Health Belief Model (HBM), changes in public health behavior depend on the enhancement of perceived susceptibility and perceived severity(26). However, The current deficiency in risk education and disease-prevention awareness within short videos may therefore hinder the development of positive health behaviors. To address this imbalance, future health communication strategies on short-video platforms should strengthen the dissemination of information on prevention, etiology, and screening, structured to maintain both accessibility and scientific rigor. Collaboration among healthcare professionals, medical institutions, and social media platforms will be essential to expand the reach of high-quality, evidence-based information and to promote proactive health behaviors among the public.

The correlation analysis revealed significant positive associations among audience engagement indicators, with particularly strong correlations observed between likes and comments (r = 0.94), likes and collections (r = 0.89), and shares and collections (r = 0.96). However, the correlations between engagement metrics and video quality or reliability scores were generally weak. These findings are consistent with previous research, indicating that elevated engagement metrics do not necessarily correspond to higher educational or informational quality(22, 24). A slight positive correlation was also observed between video length and both GQS (r = 0.34) and mDISCERN (r = 0.39), suggesting that longer videos may provide more comprehensive explanations or contain richer medical information (27). Furthermore, a moderate correlation between mDISCERN and JAMA (r = 0.46) implies that videos exhibiting greater reliability are generally associated with enhanced transparency in authorship and source disclosure.

This study highlights that although colorectal cancer–related short videos on TikTok and Bilibili attract strong audience engagement, their overall quality and informational coverage remain moderate. Future health communication should prioritize the participation of healthcare professionals, integrating evidence-based expertise into social media content to improve scientific accuracy and educational value. In addition, platforms should increase the visibility of preventive and screening information through algorithmic optimization, while both creators and audiences need to strengthen health literacy and critical evaluation skills. Given the weak association between engagement metrics and information quality, user interactions should not be used as indicators of credibility; instead, platforms are encouraged to establish expert review or medical content labeling systems.

Several limitations should be noted. First, this study focused only on TikTok and Bilibili, limiting its generalizability. Second, the quality assessment relied on subjective tools (GQS, mDISCERN, JAMA), which may introduce evaluator bias. Third, as a cross-sectional study, it represents a single time point; longitudinal analyses are needed to assess temporal trends. Finally, only Chinese-language videos were analyzed, and language or cultural factors may affect the interpretation of health information.

Conclusion

This study systematically analyzed 182 colorectal cancer–related short videos on TikTok and Bilibili. The findings revealed that the overall quality and reliability of these videos were at a moderate level. Videos uploaded by colorectal surgeons demonstrated significantly higher accuracy and transparency than those produced by individual users. Most videos focused on diagnosis, treatment, and clinical manifestations, while essential topics such as etiology, prevention, and early screening were markedly underrepresented.Furthermore, the weak correlation between engagement metrics and video quality or reliability suggests that user interactions (e.g., likes and comments) should not be regarded as indicators of information credibility. Overall, while both platforms demonstrate advantages in the breadth of health information dissemination, there remains a need to enhance content depth and professional rigor. Greater involvement of healthcare professionals and optimization of content structure are recommended to improve the scientific accuracy and educational value of medical short videos.

Declarations

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Reporting Checklist:
The authors have completed the STROBE reporting checklist for cross-sectional studies.**Footnote**

Data Availability Statement:

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

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Conflict of Interest:

All authors have completed the ICMJE uniform disclosure form. The authors declare that they have no conflicts of interest to disclose.

Ethics approval and consent to participate

This study analyzed publicly accessible short videos and publicly visible engagement data from TikTok and Bilibili. No individuals were recruited, contacted, or subjected to any intervention, and no private or identifiable personal information was collected or reported. The Ethics Committee of Fangchenggang Traditional Chinese Medicine Hospital determined that formal ethical approval was not required for this study. Informed consent to participate was therefore not applicable.

Consent for publication

Not applicable. This manuscript does not contain any identifiable personal data, images, or quotations from individual persons.

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Figures

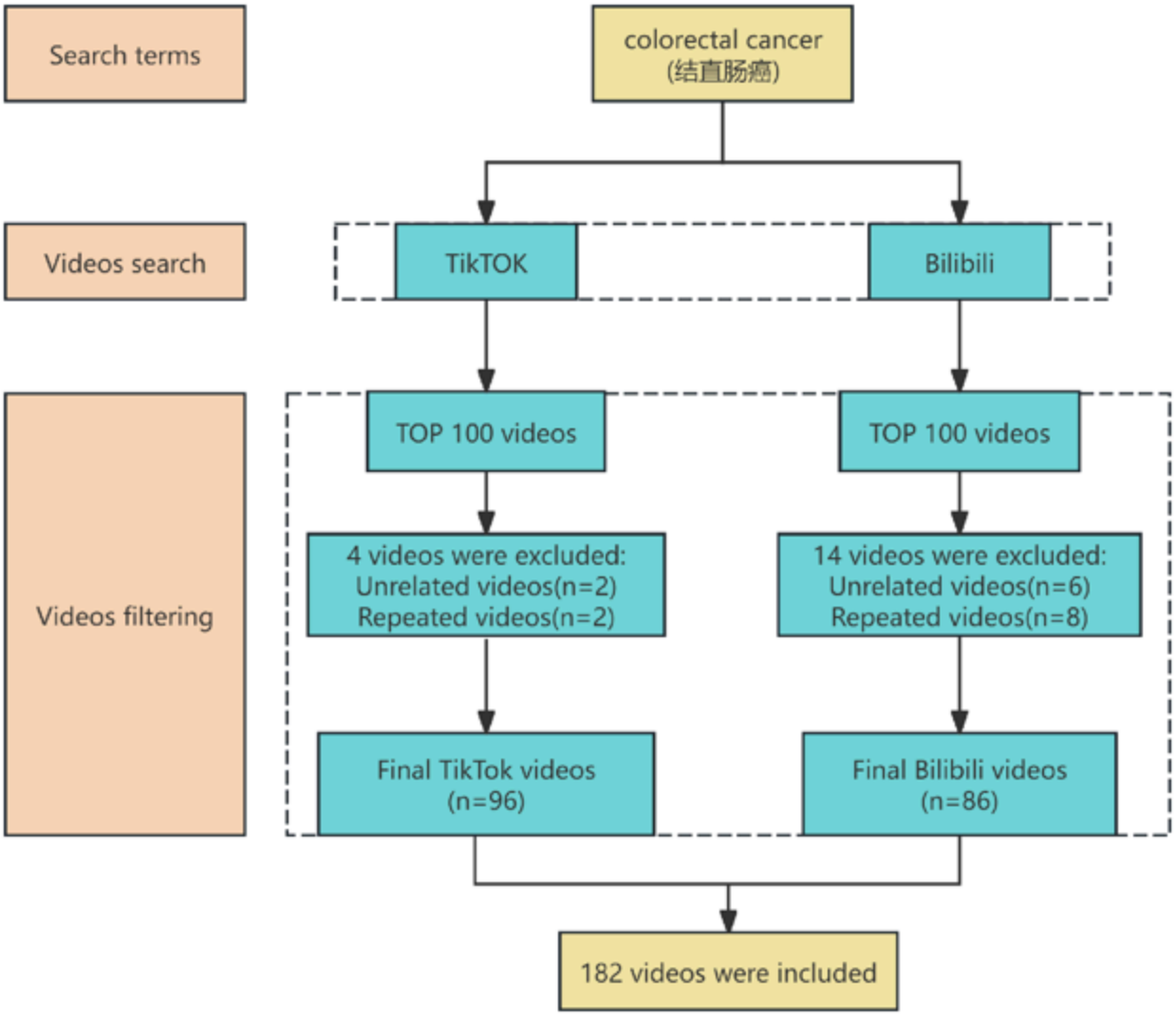


Figure 1

Flowchart of video selection process on TikTok and Bilibili.

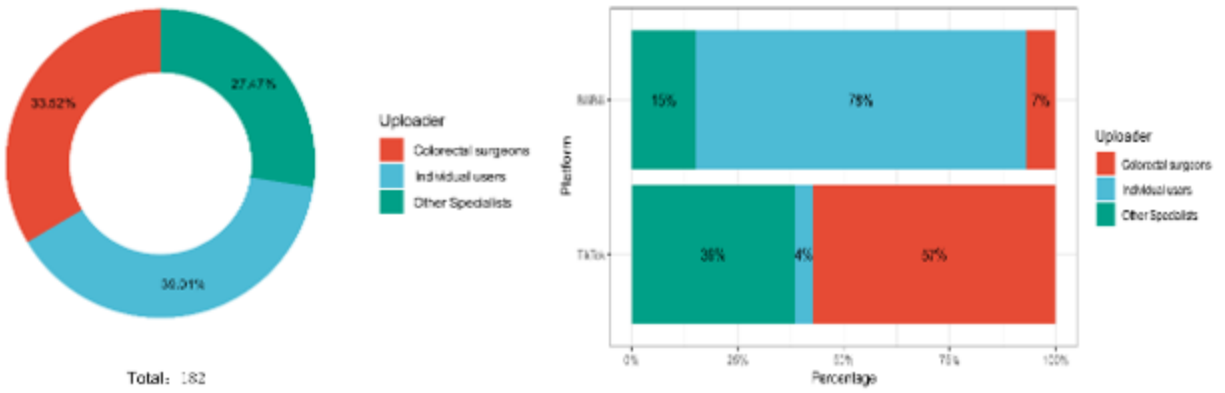


Figure 2

Distribution of video uploaders on TikTok and Bilibili.(a) Overall distribution of uploaders of colorectal cancer–related short videos.(b) Distribution of video uploaders on TikTok and Bilibili.

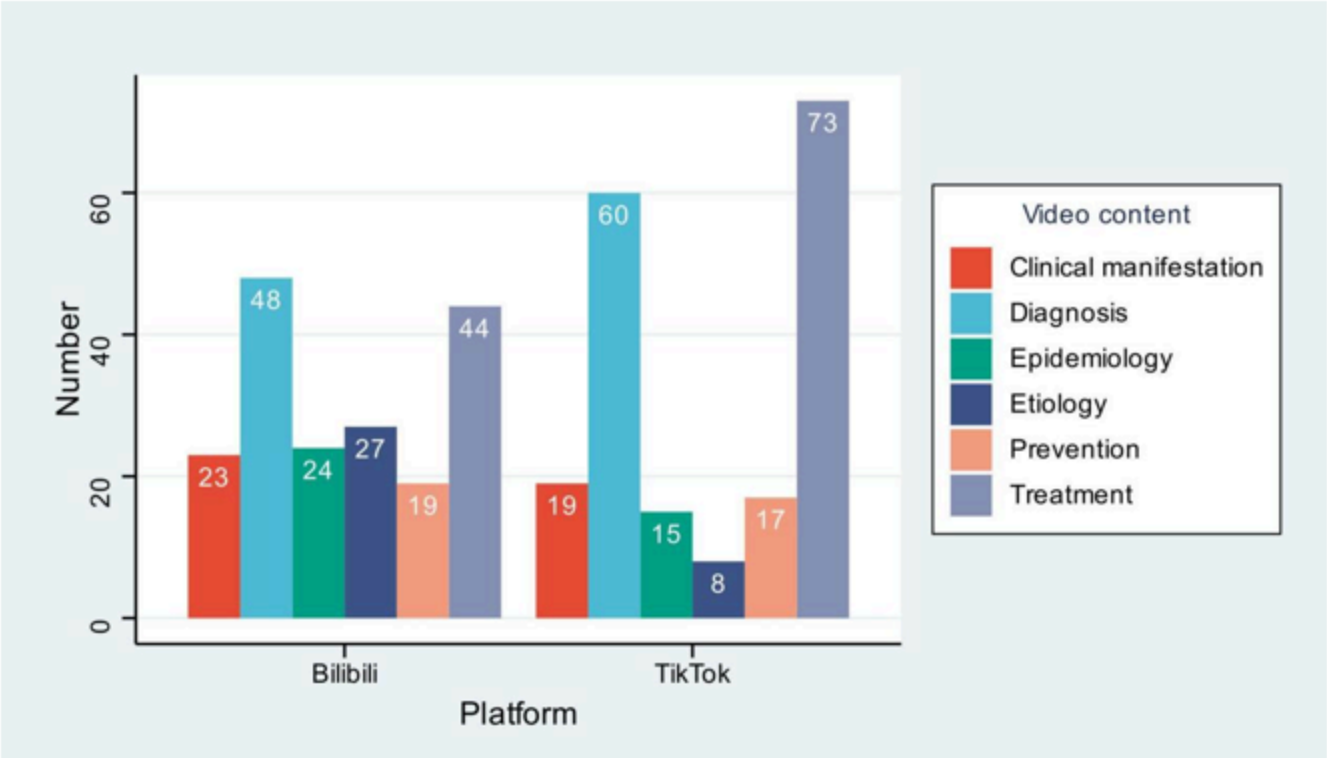


Figure 3

Distribution of video content categories related to colorectal cancer on TikTok and Bilibili.

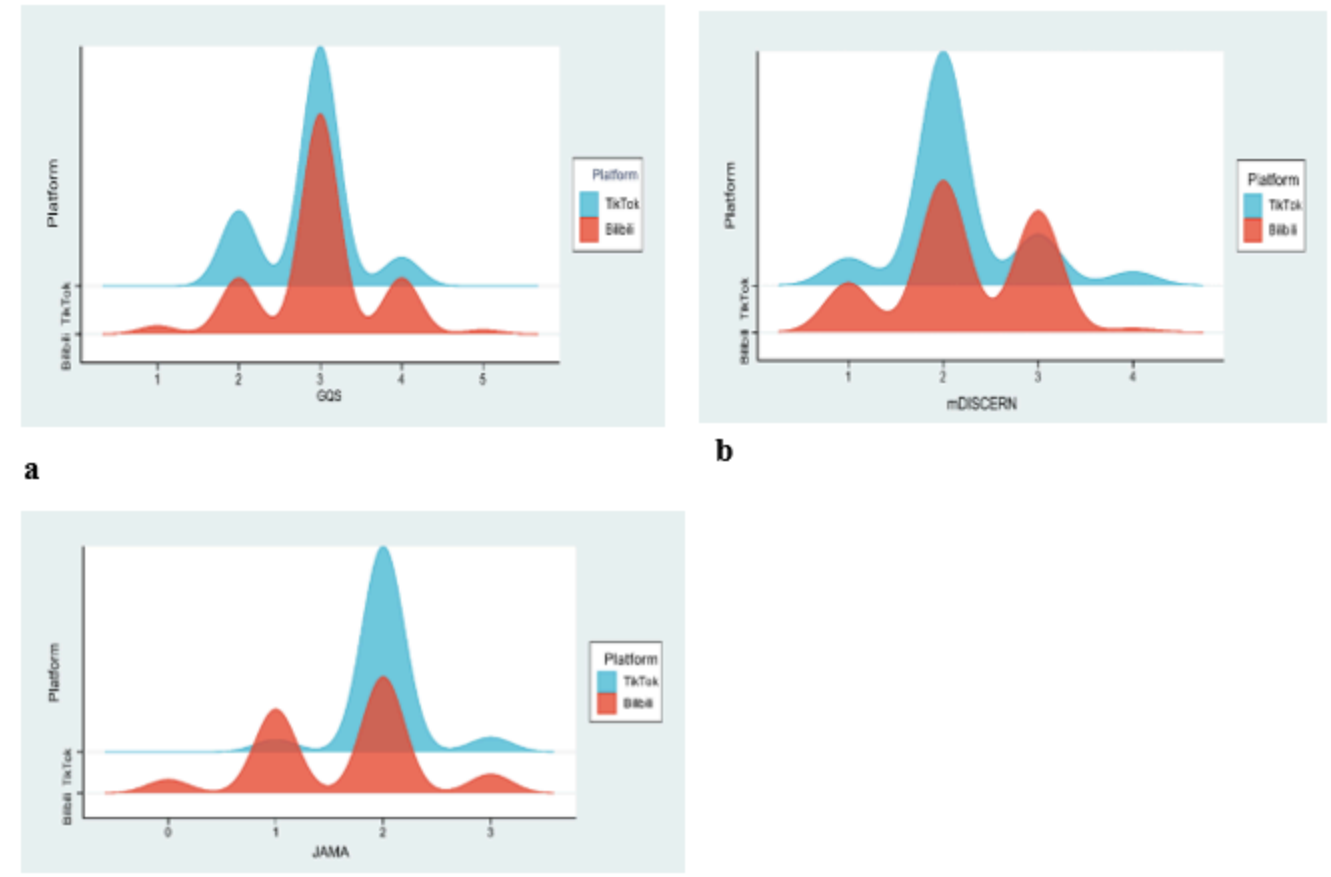
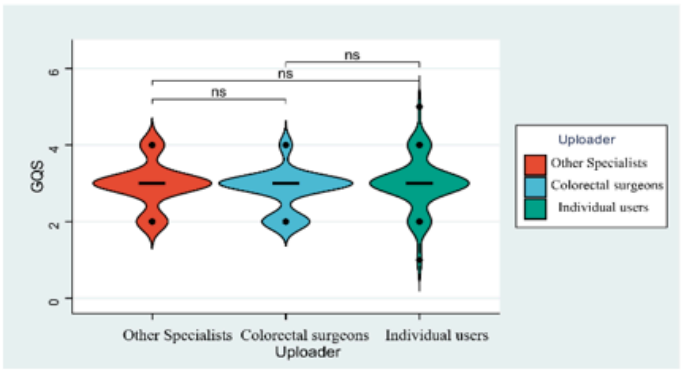
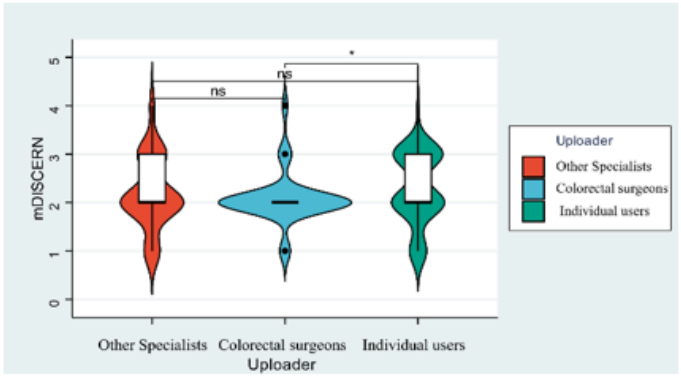


Figure 4

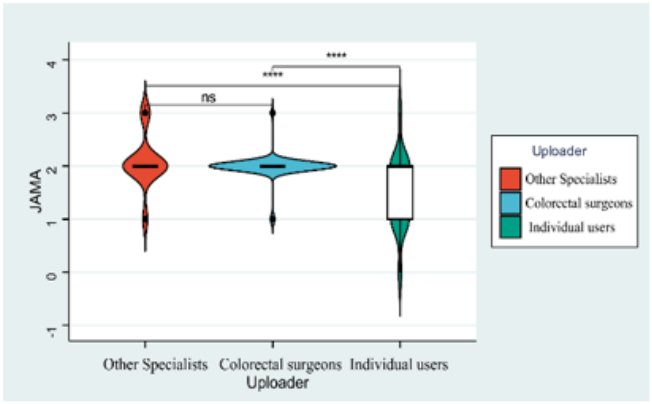
Distribution of video quality and reliability scores across TikTok and Bilibili platforms.(a) Distribution of Global Quality Score (GQS);(b) Distribution of modified DISCERN (mDISCERN) score;(c) Distribution of Journal of the American Medical Association (JAMA) benchmark score.



a



b



c

Figure 5

Comparison of video quality and reliability scores among different uploader categories.(a) Global Quality Score (GQS);(b) modified DISCERN (mDISCERN) score;(c) Journal of the American Medical Association (JAMA) benchmark score.

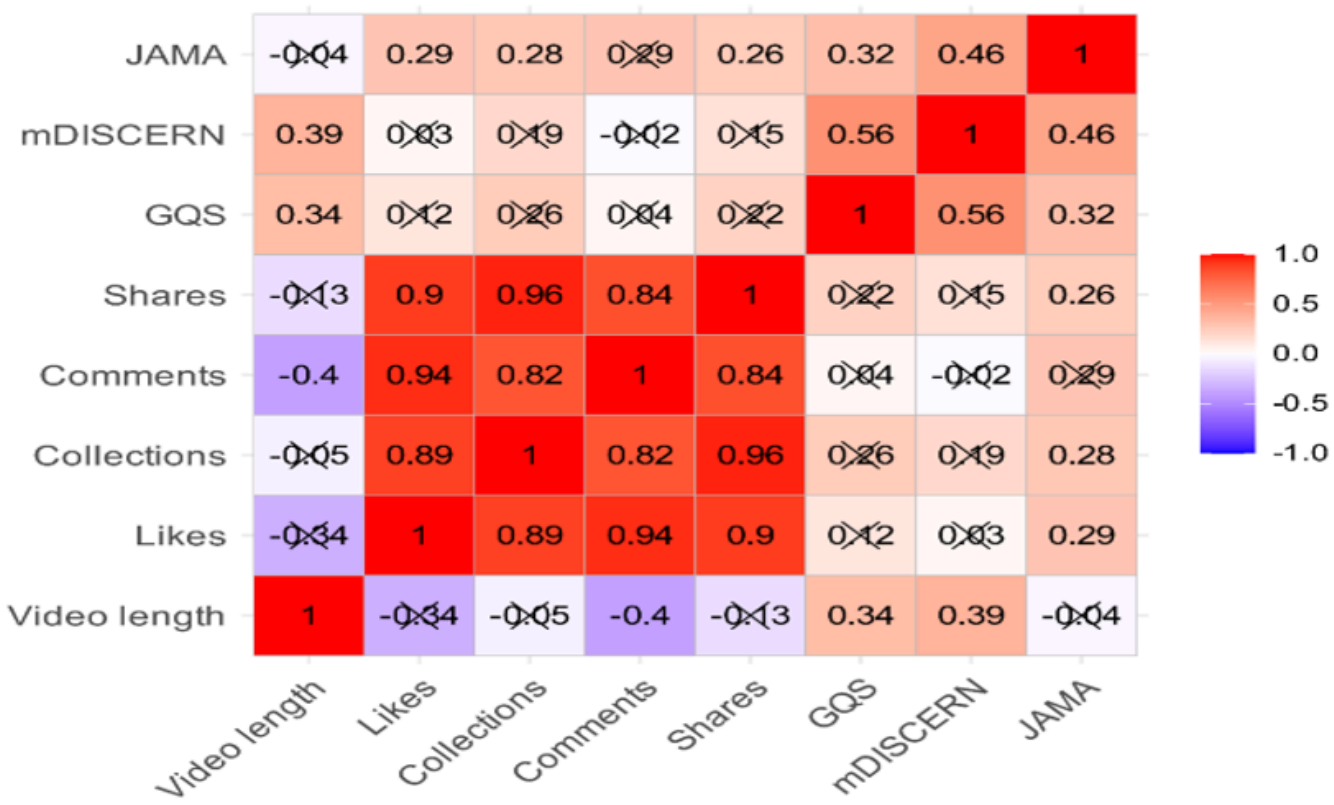


Figure 6

Correlation heatmap among video characteristics, engagement metrics, and quality scores.

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- STROBEChecklist.doc