

Sources of medical information about psoriasis in Bilibili/TikTok videos: a cross-sectional content analysis study

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Table of Contents

Original Manuscript..... 5

Supplementary Files..... 25

 Figures 26

 Figure 1..... 27

 Figure 2..... 28

 Figure 3..... 29

 Figure 4..... 30

 Figure 5..... 31

 Multimedia Appendixes 32

 Multimedia Appendix 1..... 33

 Multimedia Appendix 2..... 33

 Multimedia Appendix 3..... 33

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Abstract

Background: Short video platforms have become important channels for psoriasis-related health information dissemination, yet their content quality remains understudied.

Objective: This study aimed to assess the quality and content of psoriasis-related videos on Bilibili and TikTok.

Methods: The top 100 relevant videos on each of the two platforms were retrieved in February 2025, and the video features were recorded after screening, and the content and quality were assessed using modified DISCERN (mDISCERN), Video Information and Quality Index (VIQI), Global Quality Score (GQS), and Journal of the American Medical Association (JAMA).

Results: A total of 173 psoriasis-related videos from Bilibili (n=85) and TikTok (n=88) were included in this study. The median video length was 447 seconds (Bilibili) and 55 seconds (TikTok). In both platforms, Treatment was the most popular video topic, doctor monologue was the most common presentation format, and Bilibili demonstrated a broader range of topics and more diverse presentation formats. Video uploaders were mainly self-media (Bilibili) and doctors (TikTok), with TikTok authors exhibiting the highest certification rate (89.47%). Videos from professional and certified uploaders showed superior quality according to video quality assessed by mDISCERN, GQS, VIQI, and JAMA tools. Spearman correlation analysis showed no significant correlation between video quality and viewer interaction.

Conclusions: The number of psoriasis-related videos on both platforms is large, but the quality of both needs to be improved. It is recommended that cross-platform collaborative optimization be implemented to enhance the content output of professional and certified creators and to strengthen the scientific rigor and accessibility of the psoriasis information ecosystem.

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Original Manuscript

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Conclusions: The number of psoriasis-related videos on both platforms is large, but the quality of both needs to be improved. It is recommended that cross-platform collaborative optimization be implemented to enhance the content output of professional and certified creators and to strengthen the scientific rigor and accessibility of the psoriasis information ecosystem.

Keywords: psoriasis; short videos; information quality; social media; reliability

Introduction

Psoriasis, a chronic and recurrent inflammatory skin disease marked by erythema and silvery-white scales¹, can significantly diminish patients' quality of life due to its associated complications, such as psoriatic arthritis. According to epidemiological data, despite a global age-standardized incidence rate decline of 0.76% annually between 1990 and 2019, psoriasis still imposed a substantial disease burden, with 4.62 million new cases reported in 2019².

Advances in Internet technology have greatly enhanced the role of online platforms in health education and disease management³, with short-form video platforms like TikTok and Bilibili emerging as pivotal channels for health communication. As of 2024, TikTok boasts 1.58 billion monthly active users globally, with average daily usage duration rising to 58.4 minutes⁴. Bilibili, with 348 million active users, records over 570 million daily video plays and an average user stay time of 106 minutes, underscoring its content's strong penetration⁵. However, the rapid dissemination of information is accompanied by significant heterogeneity in information quality. Studies indicate that approximately 52% of short videos on chronic diseases contain information bias, and only 21% of the content meets evidence-based medicine standards⁶, underscoring the need for content accuracy and quality assessment.

While prior research has examined health information quality in fields such as diabetes and cardiovascular disease, the content ecology of psoriasis, a systemic disease with complex pathophysiologic mechanisms, has not yet been systematically assessed in short video platforms. This study pioneers a multidimensional analysis of psoriasis-related videos on Bilibili and TikTok, offering empirical insights for refining digital health communication strategies and fostering a collaborative content review mechanism between healthcare providers and patients.

Methods

Ethical Considerations

This study analyzed only publicly available data from short video platforms without involving human subjects or identifiable personal information. The study complied with the ethical exemption criteria of the Declaration of Helsinki for observational research.

Search Strategy and Data Collection

A standardized search process was conducted on Bilibili and TikTok in February 2025:

- (1) Search strategy: Newly registered accounts were used (to avoid bias in the recommendation algorithm) to search with the keyword “银屑病”, and the top 100 videos were collected by default on each platform;
- (2) Inclusion criteria: Chinese-language content focusing on psoriasis diagnosis/management;
- (3) Exclusion criteria: duplicate videos, advertisements and irrelevant content;
- (4) Data extraction: Record video metadata (duration, upload time, interaction indicators), uploader characteristics (uploader type, certification or non-certification, professional or non-Professional), content characteristics (subject category, presentation format). Uploader types were categorized as Doctor □ Non-profit organization □ Other medical worker/student □ Company with profit □ Official media □ Self-media □ Doctor of TCM. These were further classified into professional (Doctor, Non-profit Organization, Other Medical Worker/Student, Official Media, Doctor of TCM) and non-professional (Company with Profit, Self-Media) groups based on uploader characteristics. Content categories included Anatomy/Physiology, Causes/Prevention, Pathology/Mechanism, Epidemiology, Symptoms, Examinations/Diagnosis, Treatment, Prognosis, and Traditional Chinese Medicine (TCM). Presentation formats were classified as Doctor Monologue, Patient VLOG, Interactive Q&A, PPT or Lecture Explanation, Animation/Action, TV Program/Documentary, and other.

Assessment of Content and Quality of Videos

Video quality was assessed using a four-dimensional standardized tool: the modified DISCERN (mDISCERN, 5 items/total score of 5) quantified the reliability and quality of the information; the Global Quality Scale (GQS, score of 1-5) evaluated user experience and had been validated in the YouTube Health Information Study⁷; the Video Information Quality Index (VIQI, 4 dimensions/score of 5) assessed the multimedia element completeness and demonstrated high consistency with clinical guidelines in prior evaluations⁸; Journal of the American Medical Association (JAMA) Benchmarking Criteria (4 items/total score of 4) validated the reliability of health information and had shown stability in cross-platform assessments^{9,10}. Additional file 1 and additional file 2 provide a detailed description of these tools. Two independent reviewers completed the scoring, with disputed cases resolved through arbitration by a third researcher.

Statistical analysis

Data normality was assessed by the Shapiro-Wilk test, normally distributed variables were presented as mean±standard deviation, and non-normal variables were presented using median (interquartile spacing) [M(P25,P75)]. Inter-assessor agreement was quantified by Cohen's kappa coefficient ($\kappa > 0.80$ as excellent; 0.60-0.80 as high; 0.40-0.60 as moderate). Non-normal continuous variables were compared between groups using the Mann-Whitney U test, and differences between groups of categorical variables were analyzed by the chi-square test or Fisher's exact probability method. Differences between multiple groups were compared pairwise with Bonferroni correction. Spearman's rank correlation analysis was used to analyze the correlation between the audience interaction indicators and the quality scores, and the strength of correlation coefficients was graded: $r > 0$ indicates positive correlation, $r < 0$ indicates negative correlation, $|r| \leq 0.2$ suggests no correlation, $0.2 < |r| \leq 0.4$ indicates a weak correlation, $0.4 < |r| \leq 0.6$ indicates a moderate correlation, $0.6 < |r| \leq 0.8$ indicates a strong correlation, and $|r| > 0.8$ indicates an very strong correlation. All statistical analyses were performed with a significance level of $P < 0.05$.

Results

Video Characterization

As shown in Figure 1, after excluding advertisements, repetitive, irrelevant and non-Chinese videos, a total of 173 psoriasis-related videos were included for further analysis on both Bilibili (n=85) and TikTok (n=88) platforms, and the results are detailed in Table 1. It was found that Bilibili's video length (447 [34-3482] seconds) and Duration (762 [25-2244] days) were significantly longer than TikTok (55 [6-264] seconds) and (30 [5-203] days, Figure S1). In terms of user interaction metrics, Bilibili exhibited the highest number of likes and comments, whereas TikTok had more shares and favorites.

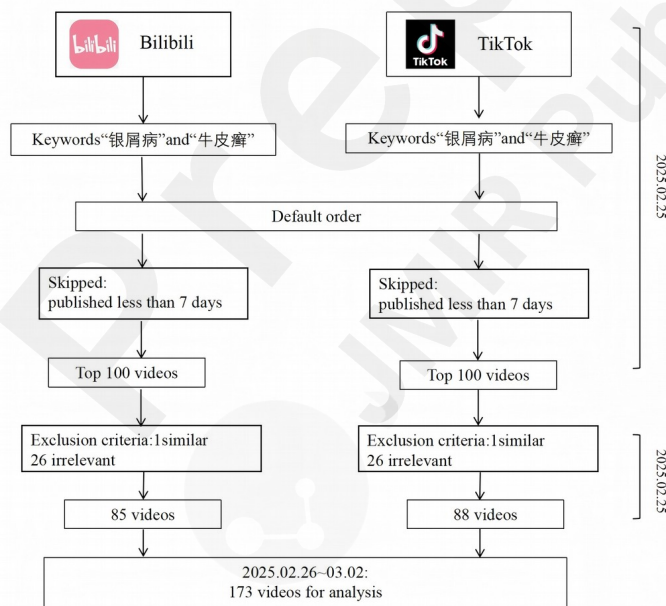


Figure 1: Flow chart of video screening and analysis process for psoriasis-related content on Bilibili and TikTok.

Table 1: Characteristics of videos about psoriasis on Bilibili/ TikTok.

Platform	Total			Bilibili(N1=85)			TikTok(N2=88)			P-value
	M	Min-Max	P25-P75	M	Min-Max	P25-P75	M	Min-Max	P25-P75	
video	1	6-	48-	44	34-	95-	55	6-264	37-	□

length(s)	2 7	3482	497	7	3482	471			65	0.00 1
Duration (day)	7 3	5- 2244	21- 741	76 2	25- 2244	304- 1086	30	5-203	10- 27	0.00 1
Likes	3 2	3- 8700	59- 1432	27 25	3- 8700	30- 887	11 61	27- 1374	167- 1211	0.00 1
Comments	2 7	0- 2944	6- 144	23 2	0- 2944	7- 305	12 8	0- 2649	6-62	0.03 4
Collections	1 5	1- 1800	34- 694	58 2	1- 1800	20- 336	10 57	6- 1702	45- 707	0.00 6
Shares	3 3	0- 1726	17- 214	19 9	0- 3639	8- 122	61 0	0- 1726	29- 387	0.00 1
Engagement Efficiency	/	/	/	10 2. 37	/	/	50 3. 29	/	/	0.00 1

Uploader characteristics

As shown in Figure S2, psoriasis-related videos on Bilibili were uploaded by 58 unique uploaders, with self-media accounting for the majority (37.93%), while TikTok had 38 uploaders, predominantly doctors (63.64%). Despite having a smaller number of uploaders, TikTok demonstrated more frequent uploading activity and attracted a larger number of followers. TikTok had a higher proportion of professional uploaders (92.11%) and certified uploaders (89.47%) compared to Bilibili, where these figures were 62.07% and 53.45%, respectively (Figure S3). Among all certified uploaders across both platforms, Western doctors and doctors of TCM constituted the majority. Additional details regarding uploader characteristics are provided in Table 2.

Table 2: Characteristics of video uploaders about psoriasis on Bilibili/ TikTok.

Platform	Total	Bilibili(N1=85)	TikTok(N2=88)	P-value
Number of uploaders		58	38	<0.001 ^a
Followers, Median[P25,P75]	553450.00 (16221.50, 152250.00)	158556(1443.50,50500.00)	394894(31000.00,254000)	<0.001 ^a
Type of uploaders, n(%)				
Doctor	36 (37.56)	15 (25.86)	21 (63.64)	0.002 ^b
Non-profit organization	5 (5.49)	5 (8.62)	0 (0.00)	0.024 ^d
Other medical	1 (1.10)	1 (1.73)	0 (0.00)	0.423 ^d

Platform	Total	Bilibili(N1=85)	TikTok(N2=88)	P-value
worker/student				
Company with profit	3 (3.30)	3 (5.17)	0 (0.00)	0.083 ^d
Official media	3 (3.30)	2 (3.45)	1 (3.03)	0.83 ^d
Self-media	26 (28.57)	22 (37.93)	4 (12.12)	0.001 ^b
Doctor of TCM Certification	17 (18.86)	10 (17.24)	7 (21.21)	0.086 ^b
				□
				0.001 ^b
Certified(n%)	65(67.71)	31(53.45)	34(89.47)	
Uncertified(n%)	31(32.29)	27(46.55)	4(10.53)	
Professional				0.006 ^b
Professional(n %)	71(73.96)	36(62.07)	35(92.11)	
Non-professional(n %)	25(26.04)	22(37.93)	3(7.89)	
Type of certified uploaders, n(%)				
Doctor	36 (55.38)	15 (48.39)	21.00 (61.76)	0.352 ^b
Non-profit organization	2 (3.08)	2 (6.45)	0.00 (0.00)	0.489 ^d
Other medical worker/student	1 (1.54)	1 (3.23)	0.00 (0.00)	0.326 ^d
Company with profit	0 (0.00)	0 (0.00)	0.00 (0.00)	
Official media	1 (1.54)	0 (0.00)	1.00 (2.94)	0.352 ^d
Self-media	2 (3.08)	2 (6.45)	0.00 (0.00)	0.161 ^d
Doctor of TCM	18 (27.69)	11 (35.48)	7.00 (20.60)	0.163 ^c

a: Mann-Whitney U test

b: Chi-squared test

c: Continuity correction

d: Fisher's exact test

Video content categories and presentation forms

Table 3 presents the content characteristics of psoriasis-related videos on Bilibili and TikTok. In terms of content topic categories, Treatment was the most dominant topic on both TikTok and Bilibili platforms, where Symptoms and Causes/Prevention ranked second on Bilibili and TikTok, respectively (Figure 2A), and the number of topics in a single video was higher in Bilibili. In terms of presentation format, Doctor Monologue was the most dominant presentation format on both platforms (Figure 2B); TikTok focused on strong interactivity, with Doctor Monologue (48.86%) and Interactive Q&A (38.64%) dominating the content; Bilibili content tended to be diversified in expression, including Bilibili's content tended to be diversified, with Animation / Action (15.29%), PPT or Lecture Explanation (11.76%), and TV Program/Documentary (1.18%) as its featured forms, which were not covered on TikTok.

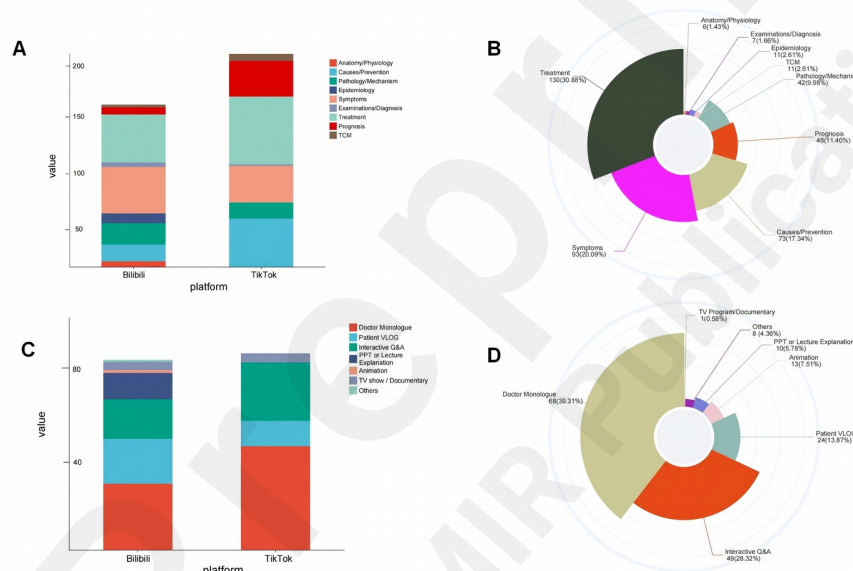


Figure 2: Thematic distribution and video type analysis of psoriasis - related videos on Bilibili and TikTok. (A) thematic distribution bar chart; (B) thematic distribution pie chart; (C) video type bar chart; (D) video type pie chart.

Table 3: Categorization of videos about psoriasis on Bilibili/ TikTok.

Platform	Total(N=173)	Bilibili(N1=8 5)	TikTok(N2=8 8)	P-value
Originality, n(%)	173(100.00)	85	88	□ 0.001 ^a
Number of topics per video,Median[P25,P75]	4(2,6)	5(5,7)	3(2,4)	□ 0.001 ^a
Type of topics, n(%)				
Anatomy/Physiology	6(1.43)	6(3.30)	0(0.00)	0.544

Causes/Prevention	73(17.34)	19(10.44)	54(22.59)	<0.001 _b
Pathology/Mechanism	42(9.98)	24(13.19)	18(7.53)	0.206 ^b
Epidemiology	11(2.61)	11(6.04)	0(0.00)	0.089 ^d
Symptoms	93(22.09)	52(28.57)	41(17.15)	0.027 ^b
Examinations/ Diagnosis	7(1.66)	5(2.75)	2(0.84)	0.395 ^d
Treatment	130(30.88)	54(29.67)	76(31.80)	<0.001 _b
Prognosis	48(11.40)	8(4.40)	40(16.74)	<0.001 _b
TCM	11(2.61)	3(1.65)	8(3.35)	0.334 ^d
Style of video shooting,n(%)				
Doctor Monologue	68 (39.31)	25(29.41)	43(48.86)	0.036 ^b
Patient VLOG	24 (13.87)	17(20.00)	7(7.95)	0.048 ^d
Interactive Q&A	49 (28.32)	15(17.65)	34(38.64)	0.001 ^b
PPT or Lecture	10 (5.78)	10(11.76)	0(0.00)	
Explanation				0.031 ^d
Animation / Action	13 (7.51)	13(15.29)	0(0.00)	0.499 ^d
TV				
Program/Documentary	1 (0.58)	1(1.18)	0(0.00)	0.694 ^d
Other	8 (4.63)	4(4.71)	4(4.55)	/

a:Mann-Whitney U test

b:Chi-squared test

c:Continuity correction

d:Fisher's exact test

Video quality

This study analyzed the video quality displayed by a multidimensional assessment tool and verified the consistency of the scores between the two observers with a kappa value of 0.847. The results indicated that the quality of psoriasis content on both platforms was suboptimal, with significant characteristic differentiation in quality bias (Table 4). Bilibili performed better on the information reliability dimension mDISCERN-sum (2.27 ± 0.52 vs. 1.94 ± 0.28 , $p < 0.001$), especially in treatment option completeness (mDISCERN-2 compliance rate 90.0%) and information source labeling (mDISCERN-5 compliance rate 100.0%). However, TikTok scored higher on metrics reflecting user experience such as GQS (3.47 ± 0.84) and VIQI-sum (12.55 ± 2.30).

Table 4: Quality assessment of videos about psoriasis on Bilibili/TikTok.

Platform	Total	Bilibili(N1=85)	TikTok(N2=88)	P-value
mDISCERN-sum	2.1±0.45	2.27±0.52	1.94±0.28	<0.001

mDISCERN-1	167	85(50.90)	82(49.10)	0.816
mDISCERN-2	10	9(90.0)	1(10.0)	0.011
mDISCERN-3	173	85(49.10)	88(50.90)	0.820
mDISCERN-4	0	0(0.0)	0(0.0)	
mDISCERN-5	14	14(100.0)	0(0.0)	<0.001
GQS	3.17±0.87	2.87±0.80	3.47±0.84	<0.001
VIQI-sum	11.33±2.44	10.07±1.88	12.55±2.30	<0.001
VIQI-1	2.91±0.88	2.58±0.97	3.23±0.64	<0.001
VIQI-2	2.83±0.62	2.75±0.79	2.90±0.40	0.132
VIQI-3	2.08±0.94	1.85±0.66	2.30±1.11	<0.001
VIQI-4	3.30±0.91	2.89±0.54	3.68±1.02	<0.001
JAMA-sum	1.47±0.69	1.07±0.61	1.85±0.52	<0.001
JAMA-1	133	52(39.10)	81(60.90)	<0.001
JAMA-2	6	6(100.0)	0(0.0)	0.013
JAMA-3	24	24(100.0)	0(0.0)	<0.001
JAMA-4	92	10(10.90)	82(89.10)	<0.001

Quality and popularity of videos from different sources, content categories, and presentation formats

This study utilized the Improved DISCERN, GQS, VIQI, and JAMA tools to evaluate video quality. In terms of different sources, videos from certified and professional uploaders achieved higher scores in user experience (GQS: 3.30 vs. 2.76, $P=0.003$), production quality (VIQI-sum: 11.75 vs. 9.98, $P<0.001$), and authority labeling (JAMA-sum: 1.70 vs. 0.73, $P<0.001$), but non-certified and non-professional uploaders scored higher in the mDISCERN-sum dimension. In terms of content categories (Figure S4 and Figure S5), the Disease Knowledge category exhibited superior overall information quality (mDISCERN-sum: 2.20 ± 0.51) and visual information completeness (VIQI-sum: 12.01 ± 2.42). Its scientific accuracy (VIQI-3: 2.39 ± 0.93) was significantly higher than that of the Outpatient Scenario (1.69 ± 0.78) and personal experience categories (1.57 ± 0.79). Personal experience category had the lowest scores for user experience (GQS: 2.65 ± 0.71), visual information integrity (VIQI-sum: 9.83 ± 1.92), and ethical norms (JAMA-sum: 0.70 ± 0.56), indicating suboptimal overall quality (Figure 3). In terms of different video presentation formats, PPT/Lecture Explanation excelled in core quality indicators, with information completeness (mDISCERN-sum: 3.00 ± 1.10) and production norms (VIQI-2: 3.33 ± 1.03) being 1.4 and 1.3 times higher than conventional healthcare videos, respectively, but there was a tendency of over-academicization (VIQI-1 information understandability only 2.67 ± 0.82). Doctor Monologue was the most standardized in terms of author qualification disclosure (JAMA-1: 91.74%) and declaration of interest (JAMA-4: 3.67%), whereas patient VLOGs suffered from serious ethical deficiencies (69.09% of unvalidated information, JAMA-3), and animation videos had the most fluctuating content quality (VIQI-sum standard deviation: 5.03, Figure 4), suggesting

the lack of stable production standards for this format. The specific results of this study are detailed in Table 5.

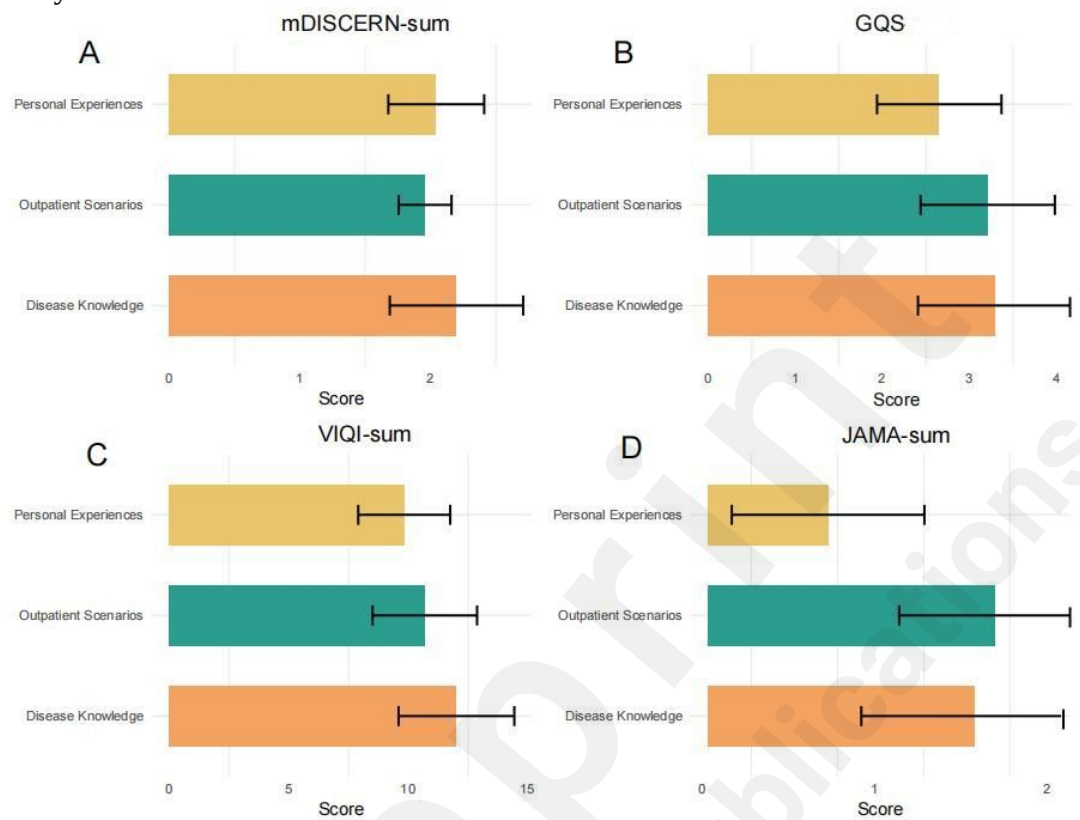


Figure 3: Relationship between different topic types and scores on four scales (A) mDISCERN, (B) GQS, (C) VIQI, (D) JAMA.

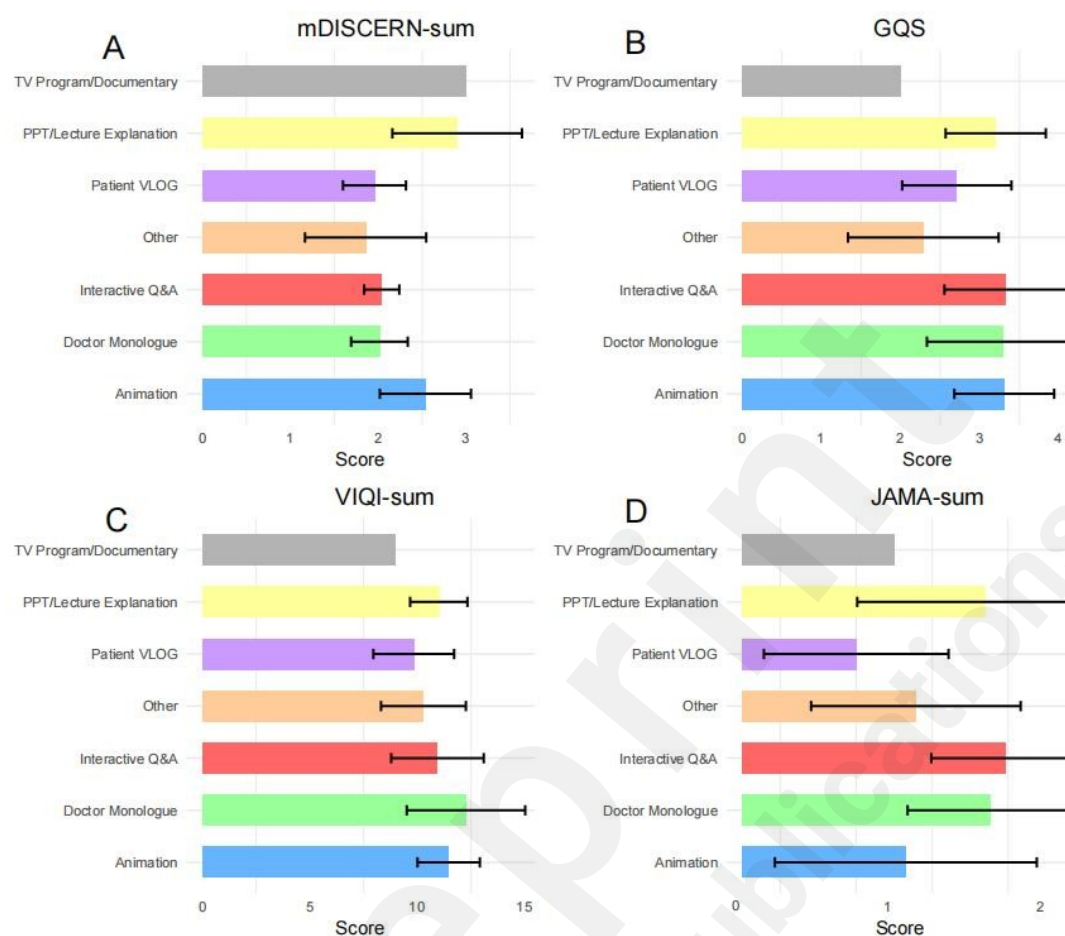


Figure 4: Relationship between different styles of video shooting and scores on four scales (A) mDISCERN, (B) GQS, (C) VIQI, (D) JAMA.

Table 5: Comparison table of medical information quality classification under multiple evaluation indicators.

Variable	mDISCERN-sum	GQS	VIQI	VIQI	VIQI	VIQI	VIQI	JAMA	JAMA	JAMA	JAMA	JAMA
			sum	-1	-2	-3	-4	sum	-1	-2	-3	-4
Certified	2.06 ± 0.41	3.3 ± 0.8	11.75 ± 2.49	3.0 ± 0.8	2.8 ± 0.5	2.1 ± 0.9	3.4 ± 0.9	1.70 ± 0.49	129 (97.73)	3 (2.27)	7 (5.30)	85 (64.39)
Non-certified	2.24 ± 0.54	2.7 ± 0.7	9.9 ± 1.67	2.5 ± 0.7	2.7 ± 0.7	1.7 ± 0.7	2.8 ± 0.6	0.73 ± 0.71	4 (9.76)	3 (7.32)	17 (41.46)	7 (17.07)
P value	0.278	0.0	<0.	<0.	0.7	0.0	0.0	<0.0	<0.0	0.18	<0.0	<0.0

		03	001	001	81	42	34	01	01	5	01	01
Non-professional	2.26 ± 0.54	2.6	10.9 ± 0.72	2.7	2.7	1.8	2.8	0.81 ± 0.77	10	3	15	7
			26 ± 1.90	4 ± 0.91	6 ± 0.79	1 ± 0.77	8 ± 0.67	± 0.77	(23.81)	(7.14)	(35.71)	(16.67)
Professional	2.05 ± 0.40	3.3	11.3 ± 0.86	2.9	2.8	2.1	3.4	1.68 ± 0.50	123	3	9	85
			67 ± 2.49	6 ± 0.86	5 ± 0.56	6 ± 0.96	3 ± 0.94	± 0.50	(93.90)	(2.29)	(6.87)	(64.89)
p.value	<0.001	<0.001	0.053	0.593	0.007	0.012	0.009	<0.001	<0.001	0.185	<0.001	<0.001
Anatomy/Physiology	2.10±0.44	3.1	11.6 ± 0.88	2.9	2.7	2.1	3.3	1.41 ± 0.70	71(7.34)	2(2.15)	15(6.13)	43(6.24)
Causes/Prevention	2.29±0.49	3.5	12.7 ± 0.79	2.4	3.4	2.5	3.5	1.43 ± 0.79	4(57.14)	1(14.29)	1(14.29)	4(57.14)
Pathology/Mechanism	2.07±0.51	2.7	10.4 ± 0.79	3.0	2.6	1.7	2.9	1.07 ± 0.77	29(67.44)	1(2.33)	6(13.95)	11(5.58)
Epidemiology	2.13±0.44	3.9	13.0 ± 0.69	3.1	3.1	2.4	3.9	1.75 ± 0.67	41(85.42)	3(6.25)	4(8.33)	36(5.00)
Symptoms	2.09±0.30	3.0	11.9 ± 0.94	2.9	2.5	2.4	3.5	1.55 ± 0.69	9(81.82)	0(0.00)	0(0.00)	8(72.73)
Diagnosis/Examination	2.17±0.46	3.5	11.6 ± 0.99	2.8	2.4	2.2	3.6	1.14 ± 0.42	100(91.74)	3(2.75)	17(15.60)	4(3.67)
Treatment	2.10±0.44	3.1	11.6 ± 0.88	2.9	2.7	2.1	3.3	1.41 ± 0.70	71(7.34)	2(2.15)	15(6.13)	43(6.24)
Prognosis	2.29±0.49	3.5	12.7 ± 0.79	2.4	3.4	2.5	3.5	1.43 ± 0.79	4(57.14)	1(14.29)	1(14.29)	4(57.14)

			9									
Traditional Chinese Medicine	2.07±0.51	2.74±0.79	10.40±1.7	3.00±0.95	2.67±0.64	1.72±0.67	2.93±0.74	1.07±0.7	29(67.44)	1(2.33)	6(13.95)	11(25.58)
Doctor	2.17±0.46	3.56±0.99	11.12±2.3	2.83±1.08	2.44±0.60	2.22±0.80	3.64±0.82	1.14±0.2	100(91.74)	3(2.75)	17(15.60)	4(3.67)
Patient VLOG	2.00±0.47	3.31±1.03	11.64±2.2	2.98±1.03	2.67±0.73	2.29±0.79	3.76±0.84	1.47±0.4	30(54.55)	4(7.27)	38(69.09)	9(16.36)
Interactive Q&A	2.08±0.40	3.57±0.87	11.84±2.1	3.14±1.06	2.37±0.49	2.49±0.87	3.88±0.80	1.55±0.8	47(95.92)	0(0.00)	26(53.06)	3(6.12)
PPT or Lecture Explanation	3.00±1.10	3.50±1.05	12.00±2.2	2.68±0.82	3.33±0.03	2.17±0.75	3.83±0.33	0.83±0.5	2(33.33)	1(16.67)	1(16.67)	1(16.67)
Animation	2.33±1.53	2.67±2.08	11.67±5.0	3.00±0.00	2.61±0.15	2.67±0.15	3.33±0.08	1.33±0.3	2(66.67)	1(33.33)	0(0.00)	1(33.33)
TV Program/Documentary	1.80±0.45	3.60±1.14	11.20±2.2	3.20±1.10	2.24±0.45	2.48±0.89	3.48±0.89	0.80±0.4	1(20.00)	0(0.00)	3(60.00)	0(0.00)
Other	1.33±1.12	1.91±1.15	8.54±2.74	2.78±1.99	1.52±0.30	1.26±0.06	3.00±0.92	0.46±0.9	12(26.09)	2(4.35)	4(8.70)	3(6.52)

Correlation Analysis

Through Spearman correlation analysis, we assessed the correlation between different video variables. The results, as depicted in Figure 5, indicate a significant positive correlation between the number of likes, comments, shares, and favorites (all $p < 0.05$). However, most quality scores showed no significant correlation with the number of likes, comments, favorites, or shares.

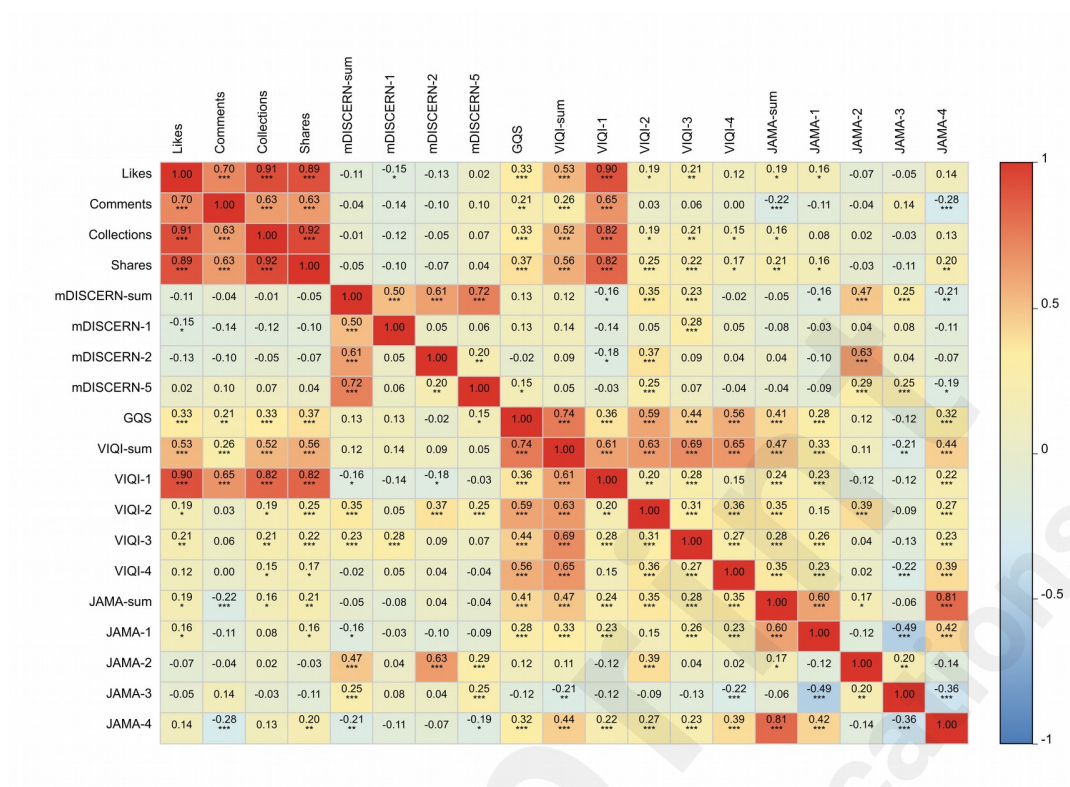


Figure 5: Heatmap of correlation analysis for psoriasis - related video metrics and evaluation scores.

Discussion

Key findings

Social media platforms have emerged as crucial tools for overcoming traditional healthcare communication barriers^{11,12}. Video-based dermatology education has demonstrated particular efficacy, with existing research on Chinese platforms examining disease pathogenesis¹³, therapeutic treatments¹⁴ and care strategies^{15,16}. The use of social media in dermatology has also been recognized as an important tool for public health education. However, existing evidence suggests that 63% of psoriasis content in social media is misleading and has a disproportionate share of non-professional creators^{17,18}. YouTube-based analyses¹⁷ indicate merely 32% of popular dermatology videos provide medically valid information, while algorithm-driven recommendation systems disproportionately amplify lower-quality content¹⁹. Notably, nearly half of individuals with psoriasis regularly access information via social media, especially among young, highly educated, and critically ill patients¹⁸, yet the utilization rate of professional medical resources is less than 20%¹¹. Therefore, evaluating the content and quality of videos on short-video platforms is profoundly significant. This study analyzed psoriasis-related videos on Bilibili and TikTok, two popular short-video platforms. Among the two platforms, Treatment was the most popular video topic, Doctor Monologue was the most common presentation, and Bilibili was able to cover more topics and present more diverse formats. Video uploaders were mainly self-media (Bilibili) and doctors (TikTok), with TikTok

authors having the highest certification rate (89.47%). Videos from professional and certified uploaders performed better according to video quality assessed by the Modified DISCERN, GQS, VIQI and JAMA tools. Spearman correlation analysis showed no significant correlation between video quality and viewer interaction.

Conclusion: The number of psoriasis-related videos on both platforms is large, but the quality of both needs to be improved. Cross-platform collaborative optimization is recommended to enhance the content output of professional creators and strengthen the scientific rigor and accessibility of the psoriasis information ecosystem.

Video characteristics

This study underscores the decisive influence of short-video platform characteristics on the presentation and dissemination of psoriasis-related content. Bilibili's long video characteristics (median 447 seconds) and its long duration (median 762 days) may be more suitable for in-depth health information delivery and support the systematic output of medical knowledge, while TikTok's short video format (median 55 seconds) and short duration (median 30 days) highlight the advantages of instantaneous dissemination, but its short-lived information may affect the long-term utility of chronic disease management. Interaction pattern differences are also significant. Bilibili's high liking-low sharing characteristics suggest user recognition of professional content, while TikTok's high sharing-high favoriting pattern indicates a stronger motivation for social communication and personal knowledge management. Notably, despite fewer likes overall, TikTok's interaction efficiency per unit of time (39 likes/day) surpasses Bilibili's (3.6 likes/day), highlighting TikTok's greater social diffusion potential and short-form videos' advantage in immediate user response. These findings are consistent with previous studies on long videos promoting deep cognition and short videos enhancing behavioral intention^{20,21}. The contradiction between depth and immediacy, previously noted in a study on laryngeal cancer by ZeYang Liu et al.⁸, calls for identifying an optimal video duration and style that balance concise, easy-to-understand content with high-quality information delivery. Future efforts should focus on this balance to enhance the effectiveness of health communication on short-video platforms.

Uploader Characteristics

Differences in platform qualification mechanisms have led to a differentiation in uploader characteristics. TikTok has constructed a doctor-driven content ecosystem (55.3%) by virtue of its strict doctor certification threshold (requiring the title of attending physician or above in a tertiary hospital and the qualification of member of an authoritative society), which has a higher user-fan base and dissemination efficiency, a fact that has been confirmed in multiple studies²²⁻²⁴. In contrast, Bilibili's lax authentication mechanism lowers the barrier to entry, making self-publishers the most dominant type of uploader, a phenomenon that fits with the findings of previous studies on laryngeal cancer and had raised concerns about the quality and reliability of videos uploaded by non-professional uploaders²². Therefore, we suggest that more professionals should be involved in uploading videos while the platform strengthens collaborative reforms: TikTok should add an evidence-based medical audit dimension to its existing certification system (e.g., introducing the GRADE evidence rating

mark²⁵), and Bilibili should develop a system of distinctive marking for certified medical accounts (e.g., exclusive color borders + floating windows for evidence rating²⁶), ultimately balancing “professional authority” and “public accessibility”.

Video content

Table 3 reveals the main characteristics of psoriasis content on short-form video platforms: Treatment is the most popular video topic, and Doctor Monologue is the most common form of presentation, characteristics that are also present in previous studies on other diseases^{8,27,28}. In addition, it is noteworthy that the characteristics of the two platforms are differentiated: Bilibili's long-form video characteristic supports its ability to cover more topics and to be more systematic in its presentation, which explains the prominent proportion of Symptoms (28.57%) and Pathology/Mechanism (13.19%) in terms of content topics, and the more diverse forms of presentation, catering to the demand for in-depth cognitive construction. Conversely, the high timeliness of TikTok's short videos (median survival time of 30 days) promotes the content to focus on utility-oriented information, with Causes/Prevention (22.59%) accounting for a significant proportion of topics, and Doctor Monologue (48.86%) and Interactive Q&A (38.64%) as the main forms of presentation, indicating TikTok's inclination to meet users' needs for instant solutions, in line with previous findings, which is consistent with the results of previous studies²⁹. These characteristics suggest that content strategies should be tailored to each platform's unique features to optimize dissemination.

Video quality

The quality assessment of psoriasis-related videos on Bilibili and TikTok found that the quality of psoriasis-related videos on short-video platforms is generally poor, and videos uploaded by professional and certified creators are significantly better in terms of authority and user experience, which is consistent with the findings of Sujithra et al.'s study in the field of diabetes³⁰. The contradiction in the mDISCERN-sum dimension may be due to the fact that this scoring tool focuses on “content completeness” rather than “scientific accuracy”. The contradiction in the mDISCERN-sum dimension may be due to the fact that this scoring tool focuses on “content completeness” rather than “scientific accuracy,” with non-specialized videos likely to receive higher completeness scores for listing a large amount of information (including misleading content), whereas specialize content sacrifices breadth by focusing on the core body of evidence (e.g., guideline-recommended therapies). Data differences between the two platforms reveal clear strengths and weaknesses on each dimension: Bilibili excels in information reliability and is more compliant with evidence-based medicine standards, particularly in treatment options (90.0% compliance with mDISCERN-2) and quality of information sources (100% compliance with mDISCERN-5), which is consistent with the healthcare organization-led content production model (63.5%) and systematic forms of knowledge delivery. However, the overpursuit of information density leads to a significant lag in user experience metrics (GQS 2.87±0.80 vs. TikTok 3.47±0.84), creating a “professional barrier effect”³¹. TikTok, on the other hand, performs better in user experience metrics (significantly ahead in GQS/VIQI), demonstrating higher

audience engagement and maximizing communication effectiveness. These findings highlight the dichotomy of content quality: while Bilibili values depth of information and reliability, TikTok emphasizes user engagement and reachability. This difference suggests the need for balanced content strategies that combine rigorous information standards with effective distribution techniques. The study emphasizes the importance of improving the quality of video content across platforms to ensure accurate information dissemination and user satisfaction, which ultimately promotes viewer health literacy.

Relationship between video quality and traffic

This study found a general lack of significant correlation between video quality and viewer interaction metrics (likes, comments, etc.) ($p > 0.05$, Figure 5). This result is consistent with established studies: for example, an assessment of the content and quality of short videos on aphasia found that content reliability and information accuracy were not significantly associated with interaction data ($p > 0.05$), and another analysis of the quality of short videos on basal cell carcinoma reached the same conclusion^{32,33}. Potential mechanisms may include two aspects: (1) viewer cognitive bias; Users' quality judgment of health information is easily disturbed by emotional expressions (e.g., headline attractiveness) or social approval effects (e.g., high number of likes), leading them to ignore content authenticity and scientificity; (2) limitations of quality evaluation frameworks: Existing scales focus on static quality indicators of content (e.g., information completeness, logical structure) but do not adequately incorporate user perception dimensions, which may more directly drive interactive behavior.

Limitations

Although this study used four video assessment tools for scoring through a multidimensional system, there are still many limitations to be improved. First, there is still a systematic bias in the independent assessment by the three healthcare professionals, and scoring consistency can be improved through assessor training and the development of a structured decision-making flowchart³⁴. Second, due to the limitations of privacy regulations, only publicly available data can be captured and there is a lack of records of negative interactions, so we can explore the possibility of collaborating with the platforms to establish an anonymized data-sharing mechanism, or expanding the data-collection time window under a compliance framework to more comprehensively reflect the content dissemination dynamics³⁵. Finally, previous studies have found that the discriminant validity of the Look Assessment Tool decreases in cross-linguistic contexts³⁶. It is recommended to revise the assessment entries to be culturally adapted in conjunction with linguists and clinical experts, and to validate the reliability and validity of the revised tool through a multicenter study.

Conclusion

This study provides reliable information for the public to understand the quality of psoriasis-related videos on short-video platforms, and the results of the study are instructive for the public, uploaders and platforms. Psoriasis-related videos on short video sharing platforms are mainly uploaded by doctors, and most of them convey

disease information in the form of Doctor Monologue; however, the video quality of both platforms needs to be improved, and the video quality of the two platforms shows a differentiated pattern: Bilibili supports systematic knowledge transfer with long video features, while TikTok relies on short-time dissemination and algorithmic recommendation to achieve high interactive Effectiveness. It is recommended that users be cautious and selective when watching psoriasis-related videos on short-video sharing platforms; professional and certified uploaders are encouraged to upload more high-quality videos; and the two platforms are recommended to strengthen the monitoring mechanism and algorithm optimization to systematically improve the accessibility and scientificity of psoriasis health information.

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Authors' Contributions

Miao Qin: Conceptualization, Methodology, Writing. Qinxiao Li: Data curation, Submission. Xinyu Xu: Data curation. Yihui Liu: Writing. Wenmin Deng and Haozhe Yan: Data curation. Chen Tu and Kaidi Zhao: Funding acquisition, Writing-review and editing.

Conflicts of Interest

None declared.

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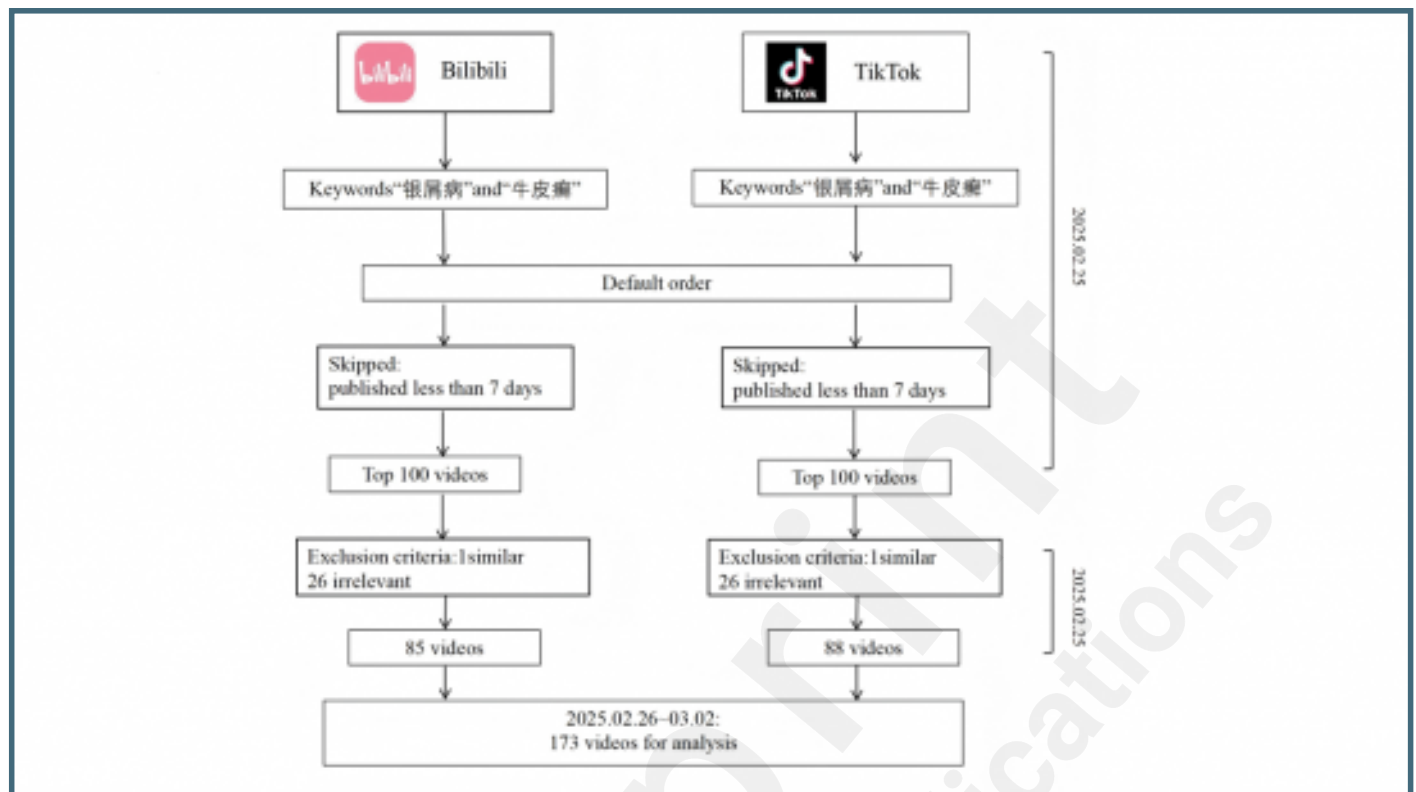
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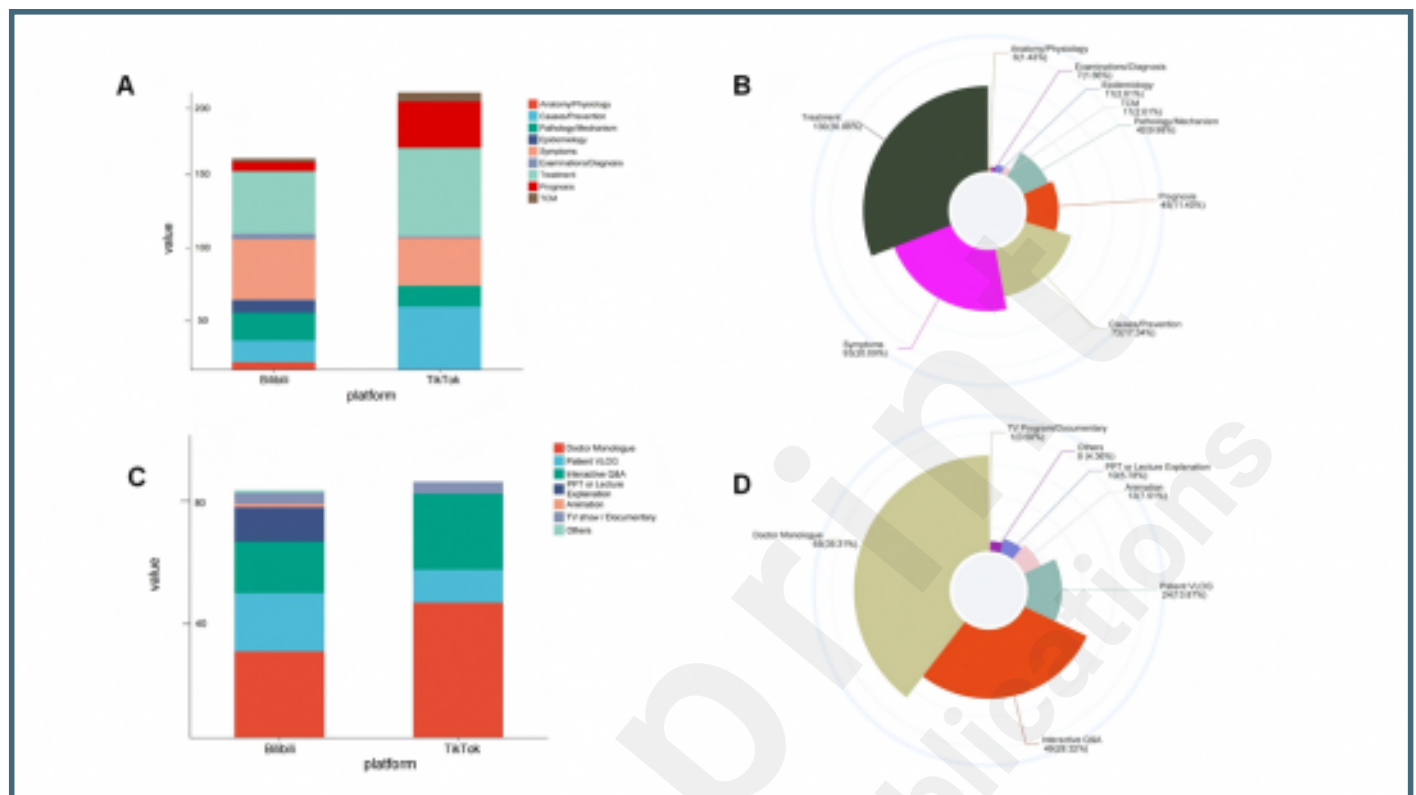
Supplementary Files

Figures

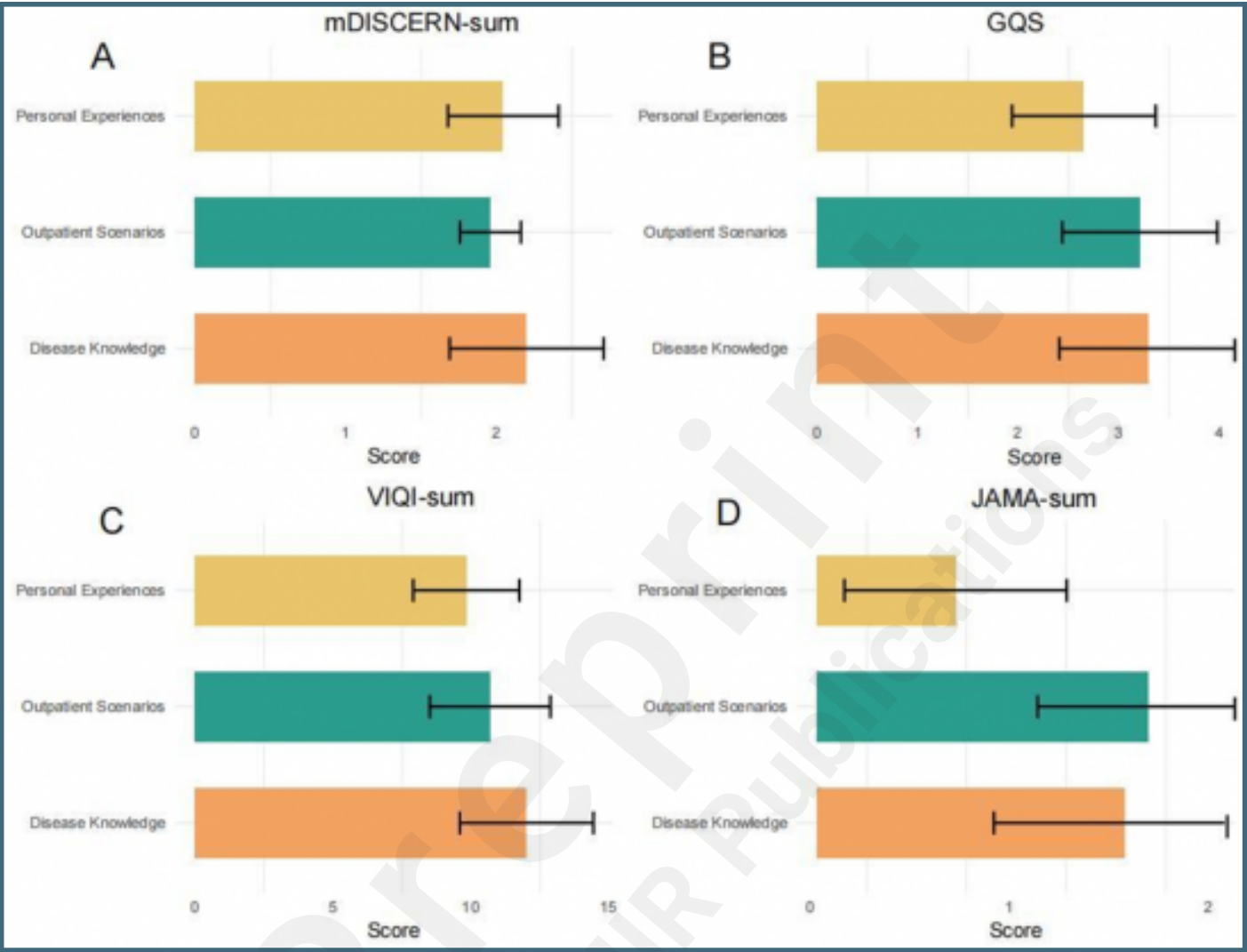
Flow chart of video screening and analysis process for psoriasis-related content on Bilibili and TikTok.



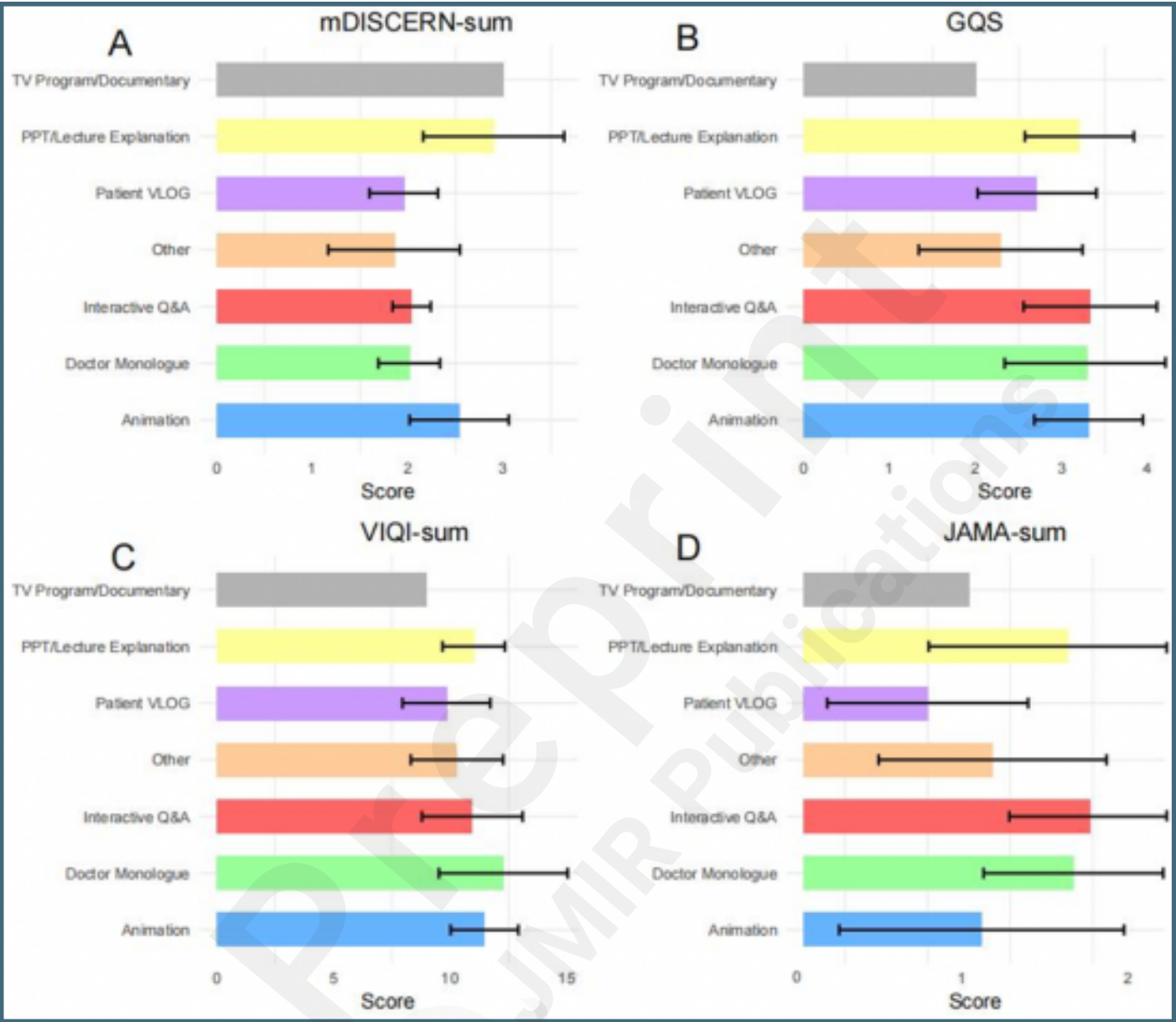
Thematic distribution and video type analysis of psoriasis - related videos on Bilibili and TikTok. (A) thematic distribution bar chart; (B) thematic distribution pie chart; (C) video type bar chart; (D) video type pie chart.



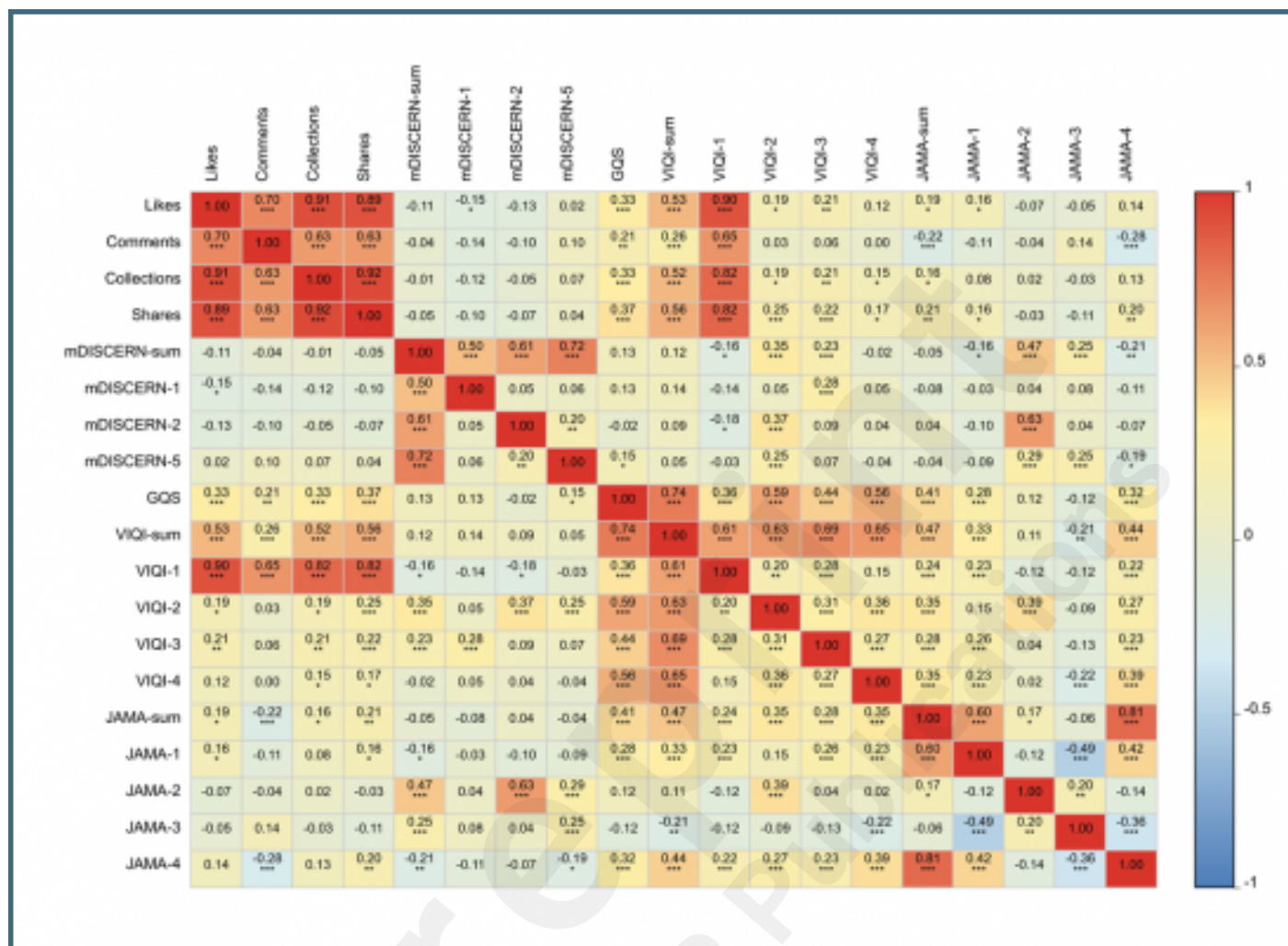
Relationship between different topic types and scores on four scales (A) mDISCERN, (B) GQS, (C) VIQI, (D) JAMA.



Relationship between different styles of video shooting and scores on four scales (A) mDISCERN, (B) GQS, (C) VIQI, (D) JAMA.



Heatmap of correlation analysis for psoriasis - related video metrics and evaluation scores.



Multimedia Appendixes

Details in methods.

URL: <http://asset.jmir.pub/assets/b2e6cb6c98f92c0f0f463537c90641b2.docx>

Details in assessment tools.

URL: <http://asset.jmir.pub/assets/6add0735497c8c0734d82a3c050027a0.docx>

Supplementary figures.

URL: <http://asset.jmir.pub/assets/6dc968087da5c8f7b246c0180893ee42.docx>

