Original Article – General Urology

Reliability and Quality Analysis of Kidney Cyst Videos on YouTube

YouTube'daki Böbrek Kisti Videolarının Güvenilirlik ve Kalite Analizi

Burak Köseoğlu[1], Mücahit Çaviş[2]

[1]Department of Urology, Polatli Duatepe State Hospital, Ankara, Türkiye
[2]Department of Urology, Etlik City Hospital, Ankara, Türkiye

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Corresponding Author: Burak Köseoğlu / Polatli Duatepe State Hospital, Department of Urology, Ankara, Türkiye / burakkoseoglu1993@gmail.com / ORCID ID: 0000-0001-7591-4497

ORCID ID: M. Çaviş 0009-0000-0354-5127

Abstract

Objective: This study aimed to systematically evaluate the content, quality, and reliability of kidney cyst-related videos on YouTube, using expert assessments and validated scoring tools.

Materials and Methods: A YouTube search was performed on August 1, 2024, using the keywords "kidney cysts" and "renal cysts." The first 200 videos sorted by relevance were screened, and 147 eligible videos were included. Two independent urologists evaluated the videos using three validated tools: the Global Quality Scale (GQS), the modified DISCERN tool, and the Journal of the American Medical Association (JAMA) benchmark criteria. Videos were categorized by content type and source of upload. Descriptive statistics were reported, and appropriate tests were used to assess associations between video characteristics and quality scores.

Results: Of the 147 videos analyzed, 71.4% were uploaded by professional sources, and "symptoms and diagnostic methods" was the most common content type. The median scores were 3 for GQS, 2 for modified DISCERN, and 2 for JAMA. According to the modified DISCERN tool, 57.2% of the videos were classified as poor quality, 33.3% as moderate, and only 9.5% as good quality. Videos from professional sources had significantly higher quality scores across all three systems. Longer videos and those with higher numbers of likes and comments tended to score better. A strong correlation was observed among the three scoring systems.

Conclusion: Despite many videos being produced by professional sources, the overall quality and reliability of YouTube content on kidney cysts remain limited. Given YouTube's widespread use for health information, healthcare professionals should guide patients toward trustworthy resources. Future studies should focus on interventions to improve the accuracy and educational value of YouTube content.

Keywords: content reliability, health information quality, kidney cysts, social media, YouTube

Özet

Amaç: Bu çalışmanın amacı, YouTube'daki böbrek kistleri ile ilgili videoların içeriğini, kalitesini ve güvenilirliğini uzman değerlendirmeleri ve doğrulanmış puanlama araçları kullanarak sistematik olarak incelemektir.

Gereçler ve Yöntemler: 1 Ağustos 2024 tarihinde "böbrek kistleri" ve "renal kistler" anahtar kelimeleri kullanılarak YouTube'da bir arama gerçekleştirildi. İlgililiğe göre sıralanan ilk 200 video tarandı ve uygun bulunan 147 video çalışmaya dahil edildi. İki bağımsız ürolog, videoları üç doğrulanmış değerlendirme aracıyla inceledi: Global Kalite Skalası (GQS), modifiye DISCERN aracı ve Amerikan Tabipler Birliği Dergisi (JAMA) kriterleri. Videolar içerik türüne ve yükleyen kaynağa göre sınıflandırıldı. Tanımlayıcı istatistikler raporlandı ve video özellikleri ile kalite puanları arasındaki ilişkileri değerlendirmek için uygun testler kullanıldı.

Bulgular: Analiz edilen 147 videonun %71,4'ü profesyonel kaynaklar tarafından yüklenmişti ve en yaygın içerik türü "semptomlar ve tanı yöntemleri" idi. Medyan puanlar GQS için 3, modifiye DISCERN için 2 ve JAMA için 2 olarak bulundu. Modifiye DISCERN aracına göre videoların %57,2'si düşük, %33,3'ü orta ve yalnızca %9,5'i yüksek kalite olarak sınıflandırıldı. Profesyonel kaynaklardan yüklenen videolar, tüm puanlama sistemlerinde anlamlı şekilde daha yüksek puanlar aldı. Daha uzun videolar ve daha fazla beğeni ile yorum alanlar daha yüksek puanlara sahipti. Üç değerlendirme sistemi arasında güçlü bir korelasyon gözlendi.

Sonuç: Profesyonel kaynaklar tarafından üretilen birçok video bulunmasına rağmen, YouTube'daki böbrek kisti içeriklerinin genel kalite ve güvenilirliği hâlâ sınırlıdır. YouTube'un sağlık bilgisi için yaygın şekilde kullanıldığı göz önünde bulundurulduğunda, sağlık profesyonellerinin hastaları güvenilir kaynaklara yönlendirmesi önemlidir. Gelecekteki çalışmalar, YouTube içeriklerinin doğruluğunu ve eğitsel değerini artırmaya yönelik müdahalelere odaklanmalıdır.

Anahtar kelimeler: içerik güvenilirliği, sağlık bilgisi kalitesi, böbrek kistleri, sosyal medya, YouTube

Introduction

Kidney cysts are one of the most common benign acquired kidney lesions [1]. Autopsy studies show that about half of patients aged 50 and older have a kidney cyst [2]. Population-based studies indicate that simple renal cysts occur in approximately 7–10% of the general population, and their prevalence increases with age, reaching up to 30% in individuals over 50 years [3]. Kidney cysts are classified according to imaging methods as simple kidney cysts and complex kidney cysts [4]. Kidney cysts are usually asymptomatic and are diagnosed incidentally.

Treatment is not necessary unless the cyst becomes infected or grows and causes symptoms. Treatment options for symptomatic benign renal cysts are cyst aspiration, surgical resection and sclerotherapy [5]. Although there is no evidence that any of the options is superior to the other; sclerotherapy and aspiration are associated with a higher incidence of cyst recurrence.

The internet, which started to be used in the second half of the twentieth century, has become the main source of obtaining information today. Especially social media platforms are the resources that patients and health professionals often use to access health information. Video is an effective way to demonstrate some content that cannot be easily explained in text form. YouTube (Google LLC, CA, USA), one of the most widely used social media platforms where users upload billions of hours of videos every day, was launched in 2005 [6]. YouTube can serve as educational tools for healthcare professionals, patients and their caregivers. However, videos are uploaded to this platform without any quality control and the information provided may be incorrect and misleading [7]. For this reason healthcare providers are concerned about the quality and standard of information on YouTube [8]. As a result, it is necessary to obtain information from sources of adequate quality and standard by evaluating the quality and standards of the content on YouTube.

Until this time, numerous studies in various medical fields have examined the quality and accuracy of YouTube videos, reporting that the content may range from highly informative to biased or misleading [9–11]. Within urology, the most popular topics seem to be urooncology and andrology [12–14]. Kidney cyst, which are usually detected incidentally in patients undergoing imaging for another reason, are a fairly common urological condition. Owing to their high prevalence, kidney cysts are also among the frequently searched conditions on the internet and social media platforms.

Despite the growing popularity of video-based medical learning, no prior studies have systematically assessed the quality of YouTube content on kidney cysts.

We hypothesized that YouTube videos related to kidney cysts would vary widely in quality and reliability, with a significant proportion lacking essential, accurate, or evidence-based information. Therefore, the aim of this study was to evaluate the content, reliability, and quality of kidney cyst-related videos available on YouTube.

Materials and Methods

On 1 August 2024, a YouTube (http://www.youtube.com) search was conducted using the terms “kidney cysts" and "renal cysts". The search and watch history were cleared beforehand to avoid algorithmic bias related to prior user interactions. No language or regional filters were applied; the search was performed using YouTube’s default global settings. The first 200 videos sorted by “relevance” were screened. Non-English videos, duplicate videos, advertisements and videos without audio were excluded, leaving a total of 147 videos for analysis. All uploaders were anonymized to preserve confidentiality. Ethics committee approval was not required, as all data were publicly accessible and did not involve human subjects (Declaration of Helsinki exemption).

All videos were viewed and analyzed separately by two urology specialist one of whom is a board certified (Fellow of the European Board of Urology) urologist. Both authors were unaware of each other's evaluations. The numbers of days since the upload date, video duration, number of views, likes, number of comments were recorded for all videos. View ratio was calculated by dividing the number of views by days since the upload. Comment ratio was calculated in a similar way. The videos were divided into five categories according to the source of upload: “universities/professional organizations/physicians/nonprofit physicians”, “stand-alone health information websites”, “medical advertisements/for-profit-organizations”, “patients/individual users” and “talk shows/TV programs”. In addition they were grouped into five categories according to their contents: “anatomy/general information”, “symptoms/diagnostic methods”, “treatment/surgical procedure”, “side effects/complications” and “patient/personal experience”.

Quality and reliability assessment of the videos was employed using three tools. Global Quality Scale (GQS) for the overall quality, flow and usefulness assessment; modified DISCERN

tool for the reliability assessment and Journal of American Medical Association (JAMA) score for information quality assessment [15–17].

The Global Quality Scale was used to evaluate the overall quality, flow and usefulness of the videos. Each video was scored on a scale from 1 to 5 across five different levels. Scores of 1 or 2 indicate poor quality, 3 indicates moderate quality and scores of 4 or 5 indicate good quality [15]. Videos with a rating of 1 are characterized by poor quality, poor flow, incomplete information and are not helpful for patients. Score 2 videos have the following characteristics: generally poor quality and the information given to patients is limited. Score 3 videos have moderate quality and some important information is adequately discussed. Videos with a score of 4 have good quality, good flow; most of the relevant information is covered, useful for patients. Score 5 videos exhibit excellent quality, excellent flow and very useful for patients.

The reliability evaluation of the videos was analyzed with the modified DISCERN score. The original DISCERN score, which was previously used to judge the quality of written consumer health information provided to patients, consists of 15 questions [16]. Modified DISCERN score used in this study consists of five yes/no questions. Each “yes” and “no” answers correspond to 1 and 0 points, respectively. Therefore, according to this scoring system, a maximum of five points can be obtained. The questions are listed as follows: (a) Are the aims of the video clear and achieved? (b) Are reliable sources of information used in videos? (c) Is the information in the videos balanced and unbiased? (d) Are additional sources of information listed for patient reference? (e) Are areas of uncertainty mentioned in the videos? According to this scoring system, videos that score below 3 points indicate poor quality and useless resources for users. Videos with a score of 3 are considered to be of moderate quality and require additional sources of information. On the other hand, videos that score above 3 points demonstrate high quality and useful content for users.

The JAMA scoring system is a method of evaluating health-related website content. This scoring system includes four parameters (Currency, attribution, authorship and disclosure). Each parameter is possible 1 point, total possible score is 4 points [17]. Video quality is correlated with JAMA scoring, so the higher score means better quality content.

Statistical Analysis

Statistical analyses were performed using Statistical Package for the Social Sciences v27.0.1.0 (SPSS Inc., Chicago, IL, USA). Descriptive statistics for normally distributed variables were reported as mean ± standard deviation, whereas nonparametric or ordinal data were reported as median (IQR). The analysis of normally distributed variables was performed by one-way ANOVA; the analysis of non-normally distributed or ordinal variables was performed by the Kruskal-Wallis test. When significant differences were detected, pairwise comparisons were performed. Inter-rater agreement was evaluated with Kappa coefficient. Statistical significance was set at $p < 0.05$.

Results

A total of 147 videos that met the inclusion criteria were analyzed in this study. Table 1 shows the video characteristics. "Universities/professional organizations/physicians/nonprofit physicians" constituted the majority of source of the videos (71.4%). The majority of video content focused on "symptoms and diagnostic methods" (42.8%) (**Table 1**).

The median (interquartile range, IQR) scores for GQS, modified DISCERN and JAMA were 3 (2), 2 (2), and 2 (1), respectively (Table 1). According to GQS, 37.4% of the videos were evaluated as "poor" quality, 34% were "moderate" and 28.6% were "good" quality. For the modified DISCERN classification, 57.2% of the videos were evaluated as being of "poor" quality, 33.3% of them were "moderate" quality and 9.5% of them were "high" quality. For the JAMA score, 17.7% of the videos met the quality criteria when the cut-off limit was set to ≥3. The Cohen kappa score for GQS, modified DISCERN and JAMA were 0.850, 0.891 and 0.878 respectively. For all evaluations, the results show a high inter-rater reliability.

Table 2 presents the distribution of quality and reliability scores according to video upload source. Videos, categorized by upload source differed significantly in terms of quality and reliability criteria. GQS scores were significantly higher in videos that were uploaded by "universities/professional organizations/physicians/nonprofit physicians". According to the JAMA score, "universities/professional organizations/physicians/nonprofit physicians" sourced videos had a higher score than others, except for "medical advertisements/for-profit-organizations" sourced videos. The modified DISCERN score of videos uploaded by "universities/professional

organizations/physicians/nonprofit physicians" was significantly higher than "medical advertisements/for-profit-organizations" and "patients/individual users".

When videos were classified into low, moderate, and high-quality groups according to the modified DISCERN score, significant differences were found in several video characteristics. These comparisons are detailed in **Table 3**. Video duration was significantly longer in higher quality videos ($p < 0.001$). Likewise, there were statistically significant differences in the number of likes ($p = 0.0003$) and the number of comments ($p = 0.0007$) among quality groups, with the highest number of comments observed in high-quality videos. Although high-quality videos were predominantly uploaded by professional sources, the association between video source and quality classification was not statistically significant ($p = 0.136$).

Correlation analysis showed a statistically significant and strong positive correlation between all three scoring systems. The full correlation coefficients are presented in Table 4. The strongest correlation was observed between modified DISCERN and GQS scores ($r = 0.74$, $p < 0.001$), followed by modified DISCERN and JAMA ($r = 0.63$, $p < 0.001$). Additionally, weak but statistically significant correlations were found between modified DISCERN scores and certain video characteristics, such as video duration ($r = 0.38$, $p < 0.001$), number of views ($r = 0.26$, $p = 0.0012$), view-per-day ratio ($r = 0.30$, $p = 0.0003$), number of likes ($r = 0.35$, $p < 0.001$), and number of comments ($r = 0.33$, $p < 0.001$) (**Table 4**).

Discussion

The use and popularity of social media platforms that produce video content have become increasingly widespread. YouTube, as one of the most prominent platforms, offers an extensive content library with billions of hours of videos uploaded daily. With the increasing use of imaging methods in clinical practice, particularly during hospital admissions, the detection of incidental kidney cysts has also increased. Due to their high prevalence, kidney cysts have become one of the most frequently searched topics on the internet and social media platforms by patients and their caregivers. However, YouTube content can often be misleading or commercial [7]. Therefore, in this study, we aimed to evaluate the reliability and quality of kidney cyst-related videos available on YouTube.

To date, the reliability and quality of YouTube content have been evaluated in many medical fields, including urology [10,11,18,19]. However, to the best of our knowledge, no prior studies have been conducted on kidney cysts. This is the first study in the literature to evaluate the reliability and quality of kidney cyst-related videos available on YouTube.

In our analysis of 147 videos, the majority of video sources were "universities/professional organizations/physicians/nonprofit physicians" while the most commonly focused on topic was "symptoms and diagnostic methods." According to our findings, most YouTube videos related to kidney cysts were of poor quality, and their evaluation scores were notably low. Importantly, videos from "universities/professional organizations/physicians/nonprofit physicians" scored significantly higher in all quality measures compared to other sources. Additionally, video duration, number of likes, and number of comments were significantly higher in the high-quality group. Strong positive correlations were observed among the three scoring systems, particularly between modified DISCERN and GQS, while weak but statistically significant correlations were also found between video characteristics and quality scores.

The source of YouTube videos is highly important in terms of quality and reliability. A study that evaluated traumatic brain injury rehabilitation videos on YouTube found that most of the videos (65.3%) were uploaded by healthcare professionals or healthcare institutions [7]. Similarly, another study evaluating videos related to disc herniation identified physicians as the most common source of content [10]. In the field of urology, Uzundal et al. reported that the majority of YouTube videos related to Thulium Laser Enucleation of the Prostate were uploaded by urologists (54.5%), followed by private hospitals [20]. In line with these findings, a study on vesicoureteral reflux videos also revealed that hospitals and clinicians constituted the most common sources of content [8]. In our study, the majority of the videos (71.4%) were also uploaded by professional sources such as universities, professional organizations, physicians, or nonprofit healthcare providers, supporting the findings of previous literature.

When the video contents were evaluated, the most commonly observed topic in our study was “symptoms and diagnosis methods” (42.8%). This was followed by “anatomy and general information” (26.5%) and “treatments and surgical procedures” (25.2%). In a study conducted by Onder et al., YouTube videos related to gout were evaluated, and it was shown that the predominant video content was related to “gout diet” and “gout treatment”, respectively [11]. Similar to our

study, in the study analyzing videos related to testicular cancer, the most frequently identified content topic was “symptoms and diagnosis methods” (24.3%) [12]. In a study examining YouTube content on pediatric robotic pyeloplasty, “surgical technique” (70%) was the most prominent topic, followed by “disease/surgery information” (14%) [21]. It is plausible that the subjective nature of video evaluation and the diversity in medical fields and video topics contributed to the differences in content and sources reported across these studies.

YouTube does not implement any quality control for uploaded videos, which allows medical information to be frequently incorrect or misleading [7]. In a study evaluating YouTube videos related to disorders of sexual development, the accuracy rate of the information was 90% [9]. In contrast, a study assessing videos on self-testicular examination found that 36.6% of the videos contained misleading information [22]. In our study, although not all videos were of high quality, the overall accuracy rate was high (93.2%), likely due to the fact that the majority of the video sources were professional institutions and physicians.

Of the 147 videos evaluated in this study, the median scores GQS, modified DISCERN and JAMA were 3, 2, and 2 respectively. According to the modified DISCERN score, 57.2% of the videos were of “poor” quality, 33.3% were of “moderate” quality, and 9.5% were of “good” quality. The other two scoring systems, GQS and JAMA, also indicated that the majority of the videos were of “poor” quality and exhibited lower reliability. In our study, “universities/professional organizations/physicians/nonprofit physicians” produced videos with the highest GQS scores and generally scored better than other sources across the JAMA and modified DISCERN scales. Similar to our findings, previous studies evaluating YouTube content have reported comparable [12,14,23]. In a study assessing YouTube videos about erectile dysfunction, more than 80% of the videos were reported to be of low to moderate quality, with a modified DISCERN score of 3 or less [13]. Similarly, another study on bladder cancer videos reported that 67% were of moderate to poor information quality [24]. Adorisio et al. found that DISCERN, JAMA, and GQS scores were significantly higher in videos originating from academics or physicians compared to those from other sources [21]. Contrary to previous studies, Culha et al. found no statistically significant differences between video groups in terms of evaluation metrics based on their publishing source [25]. Given the uncontrolled nature of YouTube and the absence of a peer-review mechanism, the platform tends to host a large number of low-quality or misleading videos. The quality of content

appears to be strongly associated with the source of upload; in our study, nearly all high-quality videos were uploaded by healthcare professionals, professional organizations, or academic institutions.

While longer videos may provide more comprehensive information and foster greater reliability, various video-related metrics such as view count, number of like, and duration do not always correlate with higher content quality. In a study evaluating videos on testicular cancer, a significant correlation was observed between video length and evaluation scores, and "high quality" videos were found to be longer than the others [12]. Similarly, in another study evaluating videos on fibromyalgia, video length was found to be positively correlated with JAMA and DISCERN scores [26]. In contrast to these findings, no correlation was observed between video length and evaluation scores in a study analyzing videos on disc herniation [10]. In our study, video duration was significantly longer in higher quality videos. The highest number of comments was observed in these videos. In addition, weak but statistically significant correlations were found between the scoring systems and all video characteristics. Nonetheless, low-quality videos may receive more views, possibly due to their shorter duration, which may help retain viewer attention and reduce drop-off.

In the context of patient education, the quality of online medical content is particularly important, as many patients rely on YouTube as an initial source of information before seeking professional consultation. Individuals with lower digital health literacy may have difficulty distinguishing high-quality educational material from misleading or oversimplified content, increasing the risk of inappropriate self-management or unnecessary anxiety. Low-quality or inaccurate online information has been shown to contribute to patient confusion, heightened anxiety, and reduced trust in healthcare professionals, which may impair appropriate decision-making and delay timely medical consultation [27]. In urological contexts, such misleading content may amplify concerns about benign conditions like simple renal cysts or discourage proper follow-up. Therefore, improving the clarity, accuracy, and accessibility of online video content, alongside strengthening digital literacy initiatives and guiding patients toward verified, evidence-based resources, is essential for supporting safe and informed patient decision-making.

To the best of our knowledge, this is the first study to evaluate videos related to kidney cysts on YouTube, the most popular video-sharing platform, using expert opinions and validated

scoring systems. However, the study has several limitations. One is its inherently subjective nature, which carries a risk of observer bias. To minimize this, two independent reviewers were involved, and validated scoring systems were employed. Another limitation of the study is that the search was restricted to the terms “kidney cysts” and “renal cysts,” and only videos in English were considered for evaluation. Although video watch history was cleared to reduce bias, YouTube’s geographical restrictions and user-related factors still posed limitations. Moreover, dislike counts were hidden by YouTube, preventing analysis of dislike/like ratios.

Conclusion

Findings from the systematic evaluation of kidney cyst-related videos on YouTube, indicate that although many videos originate from reputable sources, the overall content quality and reliability remain frequently inadequate. A significant portion of the videos is classified as low or moderate quality. Given YouTube’s widespread use as a health information source among patients and caregivers, enhancing the accuracy and standards of kidney cyst-related content is imperative. Healthcare professionals should be aware of these limitations and guide patients toward trustworthy resources. Future efforts should focus on improving video quality and assessing the impact of online information on patient decision-making, including initiatives by urology specialists and professional organizations to develop reliable digital content.

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Table 1. Characteristics and quality assessment of YouTube videos

Video features	**Min-Max**	**Mean (SD)**
Time since upload (day)	12 - 5139	1481.21 (1095.5)
Duration (sec)	12 - 3343	374.79 (509.2)
Number of views	17 - 6303179	71702.6 (521763.02)
View ratio	0.07 – 9941.9	95.3 (820.9)
Number of comments	1 - 3848	59.01 (330.1)
Comment ratio	0.00022 – 6.0694	0.09 (0.54)
Quality assessment	**Min-Max**	**Median (IQR)**
GQS	1 - 5	3 (2)
Modified DISCERN	1 - 5	2 (2)
JAMA score	1 - 4	2 (1)
Source of upload	**N**	**%**
Universities/professional organizations/physicians/nonprofit physicians	105	71.4
Stand-alone health information websites	24	16.3
Medical advertisements/for-profit-organizations	11	7.5
Patients/individual users	5	3.4
Talk shows/TV programmes	2	1.4
Video content	**N**	**%**
Anatomy and general information	39	26.5
Symptoms and diagnosis methods	63	42.8
Treatments and surgical procedure	37	25.2
Side effects and complications	1	0.7
Patient/personal experience	7	4.8
Accuracy of the information	**N**	**%**
True	137	93,2
False	10	6,8

GQS: Global quality score; IQR: Interquartile range; JAMA: Journal of the American Medical Association; Max: Maximum; Min: Minimum; SD: standard deviation

Table 2. Video quality assessments according to the source of the videos

	Universities/professional organizations/physicians/nonprofit physicians	Stand-alone health information websites	Medical advertisements/for-profit-organizations	Patients/individual users	Talk shows/TV programmes	P*
JAMA score	2(1-4)	1(1-4)	2(1-3)	1(1-1)	1(1-1)	**< 0.001**
GQS	3(1-5)	2(1-4)	2(1-4)	2(1-3)	1(1-1)	**< 0.001**
Modified DISCERN	3(1-5)	2(1-3)	1(1-4)	1(1-1)	1(1-1)	**0.001**

GQS: Global quality score; JAMA; Journal of the American Medical Association. Note: Results are presented as median (min-max). Bold values indicate statistical significance. * Kruskal-Wallis test

Table 3. Comparison of sources and video features according to modified DISCERN score

	Poor (n=84)	Moderate (n=49)	High (n=14)	P
Source type				0.136
Universities/professional organizations/physicians/nonprofit physicians	52 (61.9%)	40 (81.6%)	13 (92.9%)	
Stand-alone health information websites	17 (20.2%)	7 (14.3%)	0 (0.0%)	
Medical advertisements/for-profit-organizations	8 (9.5%)	2 (4.1%)	1 (7.1%)	
Patients/individual users	5 (6.0%)	0 (0.0%)	0 (0.0%)	
Talk shows/TV programmes	2 (2.4%)	0 (0.0%)	0 (0.0%)	
Video features				
Duration (sec)	247.15 ± 328.57	475.90 ± 611.02	786.71 ± 719.09	**< 0.001**
Number of views	97747.24 ± 689252.35	36104.92 ± 53624.49	40026.93 ± 58634.02	**0.0211**
View ratio	137.23 ± 1084.83	30.46 ± 49.38	71.01 ± 132.61	0.1801
Likes	3199.38 ± 27069.39	348.61 ± 571.15	1380.50 ± 2746.42	**0.0003**
Number of comments	58.24 ± 420.63	33.55 ± 62.66	152.79 ± 260.29	**0.0007**

Note: Results are presented as mean (± standard deviation). Bold values indicate statistical significance

Table 4. Correlation of JAMA, GQS and modified DISCERN scores with video features and each other

	JAMA		GQS		Modified DISCERN	
	r*	**p**	**r***	**p**	**r***	**p**
GQS	0.62	**< 0.001**	-	-	0.74	**< 0.001**
Modified DISCERN	0.63	**< 0.001**	0.74	**< 0.001**	-	**-**
Duration (sec)	0.30	**0.0002**	0.41	**< 0.001**	0.38	**< 0.001**
Number of views	0.23	**0.0061**	0.25	**0.0019**	0.26	**0.0012**
View ratio	0.20	**0.0147**	0.28	**0.0007**	0.30	**0.0003**
Likes	0.26	**0.0015**	0.33	**< 0.001**	0.35	**< 0.001**
Number of comments	0.23	**0.0057**	0.29	**0.0004**	0.33	**< 0.001**

GQS: Global quality score; JAMA: Journal of the American Medical Association. Bold value indicates statistically significance. *Spearman p correlation coefficient