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Are YouTube Videos a Reliable Source to Learn About the Use of Elastics (Rubber Bands) in Orthodontic Treatment?

Ortodontik Tedavide Lastik Kullanımı Hakkında YouTube Videoları Güvenilir Bir Kaynak mı?

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ABSTRACT

Objective: This study aimed to evaluate the quality and accuracy of YouTube videos providing information about Elastics (Rubber Bands).

Methods: Data collection involved using the search term "Rubber Bands" in the Google Trends app to identify YouTube videos related to elastics. The first 100 videos were reviewed, and 62 videos meeting inclusion criteria were analyzed. Video content was assessed using a 13-point scoring scale to classify videos into low, moderate, and high-content groups. Statistical analyses included the Kruskal-Wallis test, Post Hoc Bonferroni test, Multinomial Logistic Regression analysis, and Spearman correlation.

Results: The majority of videos were categorized as low (56.5%), moderate (40.3%), and high (3.2%) content. Healthcare professionals uploaded the majority of the videos (77.4%). Among the topics covered in the videos, 'Instructions' (98.4%) was the most frequently mentioned, while 'Oral hygiene instructions' (1.6%) were least mentioned. Videos with moderate content had significantly higher Video Information and Quality Index (VIQI) Total Scores compared to low-content videos (*P*=.000).

Conclusion: The content of the videos on the use of Elastic on YouTube™ is insufficient**.** To direct the patients to accurate information about the correct use of elastics and its importance, the clinician should be aware of the accuracy of the information on the internet.

Keywords: Elastics**,** rubber bands, social media, YouTube

ÖZ

Amaç: Bu çalışmanın amacı, Lastikler (Lastik Bantlar) hakkında bilgi sağlayan YouTube videolarının kalitesini ve doğruluğunu değerlendirmektir.

Yöntem: Veri toplama, lastiklerle ilgili YouTube videolarını belirlemek için Google Trendler uygulamasında "Lastik Bantlar" arama terimi kullanılarak gerçekleştirilmiştir. İlk 100 video incelenmiş ve katılım kriterlerini karşılayan 62 video analiz edilmiştir. Video içeriği, videoları düşük, orta ve yüksek içerikli gruplara ayırmak için 13 puanlık bir puanlama ölçeği kullanılarak değerlendirilmiştir. İstatistiksel analizler Kruskal-Wallis testi, Post Hoc Bonferroni testi, Çok Değişkenli Lojistik Regresyon analizi ve Spearman korelasyonunu içermektedir.

Bulgular: Videoların çoğunluğu düşük (%56,5), orta (%40,3) ve yüksek (%3,2) içerik olarak kategorize edildi. Videoların çoğunluğu (%77,4) sağlık çalışanları tarafından yüklendi. Videolarda ele alınan konular arasında en sık bahsedilen konu 'Talimatlar' (%98,4) olurken, en az bahsedilen konu 'Ağız hijyeni talimatları' (%1,6) oldu. Orta düzeyde içeriğe sahip videoların Video Bilgi ve Kalite İndeksi (VIQI) Toplam Puanları, düşük içerikli videolara kıyasla önemli ölçüde daha yüksekti (*P*=.000).

Sonuç: YouTube™'da Elastic kullanımıyla ilgili videoların içeriği yetersizdir. Hastaları lastiklerin doğru kullanımı ve önemi hakkında doğru bilgilere yönlendirmek için, klinisyenin internetteki bilgilerin doğruluğundan haberdar olması gerekir.

Anahtar Kelimeler: Lastikler, lastik bantlar, sosyal medya, YouTube

INTRODUCTION

In orthodontics, various materials such as loops, springs, and elastics are used to apply force to move teeth.[1] Elastics are divided into two groups according to their point of application: intramaxillary elastics, which are applied between two points in the same dental arch, and intermaxillary elastics, which are applied between a point on the maxillary arch and a point on the mandibular arch.[2] Elastics are also divided into two groups based on the material used in their manufacture: latex or synthetic. Latex elastics are obtained from vegetable extraction. Synthetic or elastomeric elastics are obtained through chemical transformations

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of coal, petroleum, and some vegetable alcohols.[3,4] The orthodontic literature reports the introduction of intermaxillary latex elastics after 1893.[5] Intraoral latex elastics are used to aid dental intercuspation by generating light and continuous forces in canine retraction, space closure, rotational correction, and anteroposterior correction of malocclusions.[6] These elastics are characterised by high flexibility, relatively enduring force, and low cost. Patients can easily change the elastics themselves and maintain good oral hygiene.[7]

It is a common finding revealed by studies that when rubber bands are applied to the mouth, they lose their initial force due to intraoral activities and conditions of the oral environment (mouth temperature, saliva, foods, and beverages with different acidities and alkalinities).[2,8-10] In clinical practice, patients are advised to discard the elastics and put on new ones one day later so that the force value of the elastics remains relatively constant, as the magnitude of the initial force applied and the resulting tooth movement will decrease over time.[11] Therefore, it is important to inform patients about the proper use of these rubber bands.

In recent years, the Internet has become a very popular means of communication and access to information for people. Patients search the Internet not only to find answers to their questions about medical issues but also to find treatment options for their diseases. Founded in December 2005 as an online video-sharing site, YouTube is one of the most visited websites by patients. Approximately 5 billion videos are watched daily on YouTube.[12,13] The fact that YouTube videos are not subject to any moderation or regulation means that they may contain false information.[14] Most studies agree that YouTube contains scientifically inaccurate and sometimes misleading health-related information.[15-16] The effectiveness and potential educational impact of YouTube videos on individuals have been studied in various health-related disciplines.[17-20]

To our knowledge, there are no studies evaluating the quality of YouTube videos on rubber bands (elastics). The objectives of this research are to evaluate the quality and accuracy of information about rubber bands provided by YouTube videos.

METHODS

Rubber bands (elastics) were searched using Google Trends. It was determined that 'rubber bands' was the most commonly used term. A search was made using the term 'rubber bands' on the online video streaming website YouTube (https://www.youtube.com) on January 12, 2022, for videos related to rubber bands. We used "sort by relevance" as the default filter for a YouTube search. Since the descriptive features of the videos (the number of views, likes, comments, dislikes, etc.) may change over time, we created a playlist of the identified videos to avoid being affected by these changes. Previous research has determined that most YouTube users conducting an online search view the first 60 videos, and most studies utilizing YouTube as a search tool, have used 60-200 videos.[21]

After creating a playlist, the first 100 videos ranked by relevance were viewed, and an evaluation of the quality and accuracy of the information provided about rubber bands was performed. The criteria for video exclusion were as follows: no audio, not in English, duplicate video, not related to the topic, multi-part video with more than three parts, and video lasting more than 10 minutes. Based on these criteria, 38 videos were excluded, and 62 videos were included in the study (Figure 1).

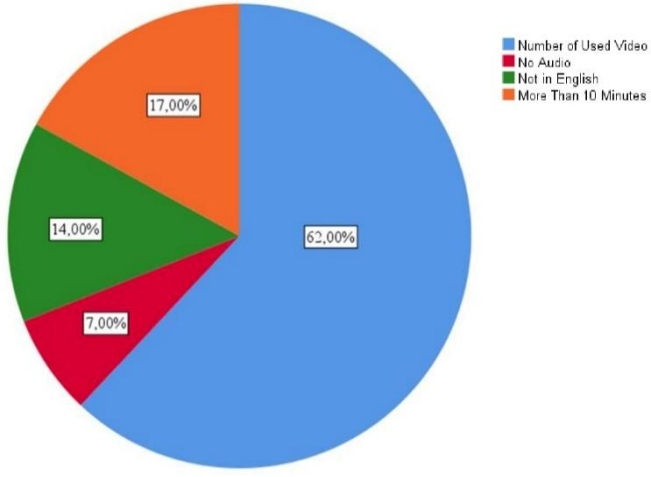

Figure 1. Pie chart showing the distribution of video use cases analyzed in the study

The number of views, duration in minutes, upload date, number of likes/dislikes, number of comments, and country of origin were recorded for each video. Viewers' interactions were calculated using the Interaction Index (number of likes - number of dislikes / total number of views * 100%) and viewing rate (number of views/number of days since upload * 100%) formulas.

All videos were categorized by the upload source into five groups: healthcare professionals, hospital/university, commercial (dental manufacturing company or dental supply company), individual users, and others (TV channels, news agencies). All videos were also classified according to type: educational (videos that aimed to raise awareness about rubber bands) and patient experience.

YouTube videos were then assessed for the following content: (1) definition, (2) procedure, (3) instructions, (4) indications, (5) advantages, (6) complications, (7) oral hygiene instructions, (8) ease of use, and (9) quality of life: (a) pain, (b) sensitivity, (c) psychological and psychosocial impact, (d) wound, (e) speech (Figure 2). Each content area was given a possible 1 point, for a total of 13 possible points, which was considered the "Total content score" of that video. According to the total content score, we divided the videos into three groups: low- (0-4 points), moderate- (5-9 points), and high- (10-13 points) content videos.

The Video Information and Quality Index (VIQI) was used to analyze the overall quality and content of the videos. The VIQI scale uses a 5-point scale ranging from 1 (poor quality) to 5 (high quality) to assess the following video features: flow of information, information accuracy, quality (one point each for use of still images, animation, interviews with individuals in the community, video captions, and a report summary), and precision (level of coherence between video title and content) (Table 1).

Because the study contained only public data, it was exempt from review by the Faculty of Dentistry Research and Ethics Committee.

Definition	
Procedure	
Instructions	
Indications	
Advantages	
Complications	
Oral Hygiene Instructions	
Ease of use	
Quality of Life	
a) Pain	
b) Sensitivity	
c) Psychological and psychosocial impact	
d) Wound	
e) Speech	
Total No:13	

Figure 2. Content used to evaluate and calculate the 'Total Content Score' of each video included in the study

Table 1. Video Information and Quality Index (VIQI) content assessment

The flow of information	(1-5)
Information Accuracy	(1-5)
Quality (one point each for use of still images, animation, interview with individuals in the community, video captions, report summary)	(1-5)
Precision (level of coherence between video title and content)	(1-5)
Total score:	

Statistical Analysis

Descriptive statistics (number, percentage, mean, standard deviation, minimum, and maximum) are presented in this study. Firstly, the normality assumption was assessed using the Shapiro-Wilk test. The Kruskal-Wallis test was employed to compare means among three or more groups with non-normal distributions. Post hoc Bonferroni test was conducted to identify specific groups showing differences. Spearman's correlation was used to explore relationships between non-normally distributed continuous variables. Fisher's Exact test was used to examine relationships between categorical variables when sample size assumptions were unmet. Multinomial logistic regression was applied to model categorical dependent variables with independent variables. Analyses were performed using IBM Statistical Package for the Social Sciences 25 (IBM SPSS Corp., Armonk, NY, USA) software, with significance evaluated at $P<.05$.

RESULTS

Of the first 100 rubber band videos scanned on YouTube, 62 were included in the study, and 38 videos were excluded for the reasons outlined in Figure 1. The majority of videos, 85.5% (n=53), were uploaded by the subjects living in the United States, followed by 4.8% (n=3) in Australia, 3.2% (n=2) in the UK, and the remaining in Canada, Egypt, France, and Greece (1.6%, n=1 for each country). Healthcare professionals (orthodontists, dentists) uploaded 48 videos (77.4%), while individual users contributed 12 videos (19.4%). One video (1.6%) each was uploaded by a hospital/university, a commercial entity, and a dental manufacturing company. The mean number of views for the videos was 898,455.68 (range: 612 to 19,364,457 views). The mean duration of YouTube videos on rubber bands was found to be 3.11 minutes (range: 0.14-9.38, median: 2.32). The overall mean number of likes was 25,783 (range: 0 to 578,000). Most analyzed videos were educational (80.6%, n=50), with the remaining 19.4% (n=12) classified as patient experience. Of these videos, 35 (56.5%) were categorized as low-content, 25 (40.3%) as moderate-content, and 2 (3.2%) as high-content score groups. The mean total content score of the YouTube videos was 4.24 (range: 1 to 10; median: 4), and the mean VIQI Total score was 14.16 (range: 4 to 19; median: 16). All descriptive characteristics of the video statistics are presented in Table 2.

Table 2. Descriptive statistics of the features of videos

	Minimum	Maximum	Mean	Standart Deviation	Median
Number of views	612	19364457.00	898455.67	2793520.12	39559
Duration in minutes	0.14	9.38	3.11	2.88	2.32
Days since upload	1	3277.00	946.32	785.62	619.5
Number of comments	0	320000	5669.79	40599.11	35
Number of likes	0	578000	25783.87	97798.06	222
Number of dislikes	0	0	0	0	0
Viewing Rate	103.20	9006724.19	414984.08	1464373.17	6456.88
Interaction Index	0	6.32	1.19	1.34	0.71
Total content score	1	10	4.24	2.03	4
VIQI	4	19	14.16	3.32	16

		n	%
Source of Upload	Healthcare professionals (Orthodontist, Dentist)	48	77.4
	Hospital/University	1	1.6
	Commercial (Dental manufacturing company or Dental supply company)	1	1.6
	Individual user	12	19.4
Video Type	Educational	50	80.6
	Patient experience	12	19.4
Total content score (group)	Low content	35	56.5
	Moderate content	25	40.3
	High Content	2	3.2

Regarding the content of the videos, 'Instructions' (98.4%, n=61) was the most frequently mentioned topic, while 'Oral Hygiene' (1.6%, n=1) was the least mentioned topic (Figure 3).

A comparative analysis of the means of various variables between different Total-Content Score groups (low, medium, and high content) is shown in Table 3. The Total-Content Score groups are defined based on the evaluation of video content, and the variables compared include video duration, VIQI score, and other relevant metrics. The comparison

aims to highlight significant differences in these variables across the different content quality groups. In the moderate-content group, the mean scores for 'Quality', 'Precision', and 'VIQI Total Score' were statistically higher than those in the low-content group (*P*=.000, *P*=.003, *P*=.000 respectively; *P*<.05). The highest mean values for 'Precision' and 'VIQI Total Score' were observed in the high-content group. A statistically significant difference was found between the mean durations of videos in the low-content group compared to the moderate and high-content groups. This suggests that the mean durations of videos in the moderate and high-content groups were higher than those in the low-content group (*P*=.001 and *P*=.047 respectively; *P*<0.05) (Table 3).

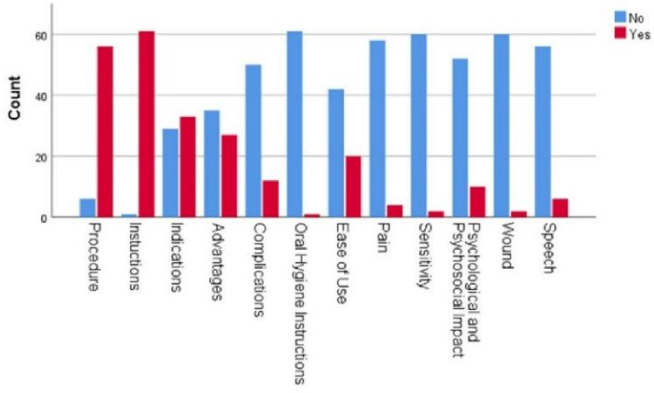

Figure 3. Histogram chart for video features

Table 3. Comparison of the means of the variables by Total-Content Score groups

		Mean	Standard Deviation	Rank Mean	Median	Test Statistic	*P*
Number of views	Low	1346276.17	3630250.82	30.63	25270	.36	.834
	Moderate	304622.28	686402.31	33.04	63718		
	High	484514.50	683597.60	27.50	484514.50		
Duration in minutes	Low	1.94 [a]	2.29	23.54	0.53	16.83	.000*
	Moderate	4.38 [b]	2.83	40.74	3.15		.001*
	High	7.69 [b]	1.93	55.25	7.69		.047*
Days since upload	Low	814.14	607.43	29.94	593.00	4.19	.123
	Moderate	1192.40	951.95	35.38	803.00		
	High	183.50	258.09	10.25	183.50		
Number of comments	Low	9563.40	54032.10	28.90	20.00	1.86	.394
	Moderate	379.84	881.87	34.46	46.00		
	High	3656	5164.70	40.00	3656.00		
Number of likes	Low	43759.28	127971.67	28.70	137.00	1.95	.376
	Moderate	2080.20	4504.30	35.26	661		
	High	7510	10592.45	33.50	7510		
Viewing Rate	Low	708853.11	1907981.46	30.17	4537.98	3.30	.192
	Moderate	21636.12	35556.49	31.56	8060.44		
	High	189125.54	106526.40	54.00	189125.54		
Interaction Index	Low	1.26	1.65	29.29	0.62	2.93	.230
	Moderate	1.06	0.79	33.08	0.85		
	High	1.65	0.14	50.50	1.65		
Flow of information	Low	3.74	1.73	28.13	5.00	4.75	.093
	Moderate	4.60	1	35.54	5.00		
	High	5	0	40.00	5.00		
Information accuracy	Low	4.31	1.34	29.27	5.00	3.06	.216
	Moderate	4.84	0.55	34.22	5.00		
	High	5	0	36.50	5.00		
Quality	Low	1.08 [a]	0.28	25.36	1.00	15.28	.000*
	Moderate	1.84 [b]	0.94	39.68	2.00		
	High	1.50 [b]	0.70	36.75	1.50		
Precision	Low	3.54 [a]	1.61	25.94	5.00	11.54	.003*
	Moderate	4.76 [b]	0.87	38.52	5.00		
	High	5 [b]	0	41.00	5.00		
VIQI total score	Low	12.68	3.27	22.49	13.00	20.92	.000*
	Moderate	16.04	2.37	43.02	16.00		
	High	16.50	0.70	45.25	16.50		

**P*<.05 *[a,b]: The same superscript* letters indicate statistically insignificant, and different letters indicate a significant difference

Based on the results of the correlation analysis between the Total Content score, VIQI, and YouTube™ demographic scores, a positive, moderate, and statistically significant relationship was found between "Duration in minutes" and the Total Content score (*P*<.05). A positive, weak, and statistically significant correlation was found between "Duration in minutes" and the VIQI score (*P*<.05). A positive, strong, and statistically significant correlation was found between the Total Content score and the VIQI score (*P*<.05) (Table 4).

The regression analysis revealed that certain YouTube video features had statistically significant effects on Total-Content scores. In this analysis, the "low content" group was used as a reference. The odds ratio for the "Duration in minutes" variable was calculated as 1.568. This indicates that for every one-unit increase in the "Duration in minutes" variable, the video is 1.568 times more likely to be classified as "medium content" compared to "low content." The odds ratio for the "VIQI" variable was calculated as 1.844. Thus, for every one-unit increase in the "VIQI" variable, the video is 1.844 times more likely to be categorized as "medium content" compared to "low content." It was determined that none of the variables for "High content" were statistically significant in the model (*P*>.05) (Table 5).

Table 4. Relationship between Total Content and VIQI scores of YouTube video features

		Total-Content Score	VIQI Score
Number of views	Rho	.037	-.034
	p	.776	.794
Duration in minutes	Rho	.481	.266
	p	.000*	.036*
Days since upload	Rho	.019	-.029
	p	.884	.823
Number of comments	Rho	.165	.007
	p	.200	.955
Number of likes	Rho	.142	.033
	p	.270	.801
Viewing Rate	Rho	.102	.095
	p	.430	.463
Interaction Index	Rho	.111	.094
	p	.390	.465
Total-Content Score	Rho		.619
	p		.000*

**P*<.05, Rho= Correlation coefficient

Fisher's Exact test was used due to no assumptions were made regarding the relationship between 'Total-Content Scores' and the variables 'Source of Upload', 'Video Type', and 'Content'. Statistically significant relationships were found between 'Total-Content Scores' and the variables 'Definition', 'Indications', 'Advantages', 'Ease of use', 'Pain', 'Sensitivity', 'Psychological and psychosocial impact', and 'Speech' (*P*<.05) (Table 6).

DISCUSSION

Although orthodontic patients frequently turn to YouTube for information about procedures, the validity of such information is often debated due to the lack of standardized content in videos.[22-24] This study aimed to evaluate YouTube videos related to rubber bands. Based on their content, the videos were categorized into three groups: low, moderate, and high content.

Table 5. Multinominal Logistic Regression Analysis of Total Content scores

Moderate Content					% 95 Confidence Interval	
Variables	β	S.D	*P*	O.R.	Lower	Upper
Number of views	.000	.000	.252	1.000	1.000	1.000
Duration in minutes	.450	.194	.021*	1.568	1.072	2.293
Days since upload	.001	.001	.200	1.001	1.000	1.002
Number of comments	.001	.001	.138	1.001	1.000	1.003
Number of likes	.000	.000	.812	1.000	.999	1.001
Viewing Rate	.000	.000	.136	1.000	1.000	1.000
Interaction Index	.983	.544	.071	2.672	.920	7.757
VIQI	.612	.190	.001*	1.844	1.271	2.677
High Content					% 95 Confidence Interval	
Variables	β	S.E.	*P*	O.R.	Lower	Upper
Number of views	.000	.078	.999	1.000	.859	1.164
Duration in minutes	32.88	18860.802	.999	-	.000	-
Days since upload	-.526	306.569	.999	.591	-	-
Number of comments	.002	1.495	.999	1.002	.054	18.749
Number of likes	-.001	.625	.999	.999	.294	3.402
Viewing Rate	.000	.181	.999	1.000	.702	1.425
Interaction Index	18.729	17752.05	.999	-	.000	-
VIQI	-5.459	7021.69	.999	.004	.000	-

**P<.05, S.D.=Standard Deviation, O.R.= Odds Ratio*

Table 6. Distribution of YouTube video demographics in High and Low content video groups

	Total-Content Score					
	Low (n=35)	Moderate (n=25)	High (n=2)	Total (n=62)		
	n (%)	n (%)	n (%)	n (%)	Test Statistics	*P*
Source Of Upload						
Healthcare professionals	28 (80)	20 (80)	0 (0)	48 (77.4)	11.35	.086
Hospital/University	1 (2.9)	0 (0)	0 (0)	1 (1.6)		
Commercial	0 (0)	1 (4)	0 (0)	1 (1.6)		
Individual user	6 (17.1)	4 (16)	2 (100)	12 (19.4)		
Video Type						
Educational	29 (82.9)	21 (84)	0 (0)	50 (80.6)	6.01	.060
Patient experience	6 (17.1)	4 (16)	2 (100)	12 (19.4)		
Content						
Definition	4 (11.4)	22 (88)	2 (100)	28 (45.2)	39.35	.000*
Procedure	29 (82.9)	25 (100)	2 (100)	56 (90.3)	5.12	.064
Instructions	34 (97.1)	25 (100)	2 (100)	61 (98.4)	2.41	1.000
Indications	13 (37.1)	18 (72)	2 (100)	33 (53.2)	8.48	.007*
Advantages	5 (14.3)	20 (80)	2 (100)	27 (43.5)	28.99	.000*
Complications	5 (14.3)	7 (28)	0 (0)	12 (19.4)	1.95	.330
Oral hygiene instructions	1 (2.9)	0 (0)	0 (0)	1 (1.6)	2.41	1.000
Ease of use	3 (8.6)	15 (60)	2 (100)	20 (32.3)	21.97	.000*
Pain	0 (0.0)	2 (8)	2 (100)	4 (6.5)	13.65	.001*
Sensitivity	0 (0.0)	1 (4)	1 (50)	2 (3.2)	7.18	.027*
Psychological and psychosocial impact	2 (5.7)	6 (24)	2 (100)	10 (16.1)	10.84	.003*
Wound	1 (2.9)	0 (0)	1 (50)	2 (3.2)	6.51	.064
Speech	1 (2.9)	3 (12)	2 (100)	6 (9.7)	11.13	.002*

**P<.05*

In the literature, some previous studies utilized the Global Quality Scale (GQS) rather than the VIQI to assess video quality. However, it should be noted that while the GQS was designed for evaluating website information quality, the VIQI scale comprehensively evaluates overall video quality and assesses each component of the GQS separately.[25] In our study, when comparing VIQI scores across total content score groups, a statistically significant difference was observed between the moderate and low content groups. Similar findings were reported by Hatipoğlu and Gaş,[26] where VIQI total score, precision, and quality averages were higher in the moderate content group compared to the low content group.

In contrast to our findings, Lena and Dindaroğlu did not find a statistically significant difference in VIQI total score between groups.[22] Unlike their study, we also did not find significant differences between groups in terms of views, likes, dislikes, and comments. This suggests that viewer engagement metrics such as likes, dislikes, and comments may not necessarily correlate with the video's content quality. Factors such as video title, description, tags, visuals, background music, and viewing context may influence viewer interaction more than the content itself.

In our study, we identified a statistically significant and positive relationship between 'Total-Content' score and 'VIQI score', as well as between 'Total Content score' and video duration. This implies that videos with higher 'Total Content scores' tend to also have higher 'VIQI scores' and longer durations. Our findings align with the results reported by Hatipoğlu and Gaş,[26] who also observed a positive correlation between 'VIQI score' and video duration. The mean video duration in our study was 3.11 minutes. Specifically, the mean durations for low, moderate, and high content videos were 1.94, 4.38, and 7.69 minutes, respectively. It was noted that shorter videos tended to have lower content scores, whereas longer videos typically scored higher in content evaluation. Despite no statistical difference among the groups in our study, the highest number of views was observed in the low-content group, indicating that shorter videos are more frequently watched. Similarly, the highest number of comments in the low-content group can be attributed to its higher viewership. Interestingly, our findings contrast with those of Basch et al.,[27] who found a positive correlation between video length and total views, suggesting that longer videos generally attract more viewers.

The disparity in findings between our study and that of Basch et al. may stem from differences in viewer demographics. In their analysis of temporomandibular joint disorders, individuals afflicted with these conditions might have preferred longer videos that comprehensively cover types, causes, effects, symptoms, and treatments.[27] Conversely, our study suggests that video duration should strike a balance: it should be sufficient to explain the content and key points effectively without risking viewer disengagement due to excessive length.

The results of the regression analysis in our study highlighted that variables such as "duration in minutes" and "VIQI" significantly increased the likelihood of videos being categorized as "medium content" rather than "low content". This underscores the importance of considering factors like duration and VIQI when developing content.

Patient experience videos, typically uploaded by laypeople, predominantly consist of personal anecdotes and sharing of individual experiences. Conversely, videos uploaded by healthcare professionals often exhibit more educational content.[13] In our study, uploads by 'Healthcare professionals' accounted for the majority at 77.4%, followed by 'Hospital/University'. Upon analyzing video content, 'Instruction' was identified as the most frequently mentioned topic, followed by 'Procedure'. This observation aligns with the prevalence of uploads by healthcare professionals. Out of the 62 videos evaluated in our study, 48 were uploaded by healthcare professionals. Interestingly, none of these videos were categorized as high content score, while 28 fell into the low content score group. Remarkably, only 2 videos achieved high content scores, both of which were uploaded by individual users sharing personal experiences. This finding mirrors the conclusions of Gaş et al.,[28] suggesting that the source of video uploads does not necessarily correlate with the quality of information provided on YouTube.

Our findings suggest that YouTube may not suffice as a reliable source of information regarding rubber bands. However, in contrast to these results, some researchers have found YouTube videos to be

beneficial for patients interested in topics like botulinum toxin injections.[20,28] This discrepancy in findings could stem from the examination of different subjects. The criteria used by researchers to assess the usefulness of videos may differ based on the specific topics studied.

It's important to consider that YouTube content is dynamic, and variables such as view rates, likes, and comments can be manipulated. Despite determining the most searched keywords related to our study using Google Trends, access to different videos on the same topic can vary depending on the keywords used.

CONCLUSION

- There is a wide range of information about rubber bands available on YouTube; however, our study found that 56.5% of these videos were deemed insufficient.
- Healthcare professionals should familiarize themselves with the internet resources available to guide their patients towards accessing accurate information.

Ethics Committee Approval: Because the study contained only public data, it was exempt from review by the Faculty of Dentistry Research and Ethics Committee.
Peer-review: Externally peer-reviewed.
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