Analysis of the Quality and Reliability of the Thai Language Videos Related to Orthodontic Treatment via TikTok Application

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Abstract

Our research aims to assess the quality and reliability of Thai-language TikTok videos pertaining to orthodontic treatment. The methodology involved creating a new TikTok account and analyzing 232 videos under the top category #จัดฟัน. These videos were categorized into four groups based on their creators: orthodontists, non-orthodontist dental professionals, laypersons, and others. Additionally, we collected data on various characteristics of the videos, including the number of likes, shares, comments, views, length, and days since uploaded. All TikTok videos were assessed by two orthodontists using GQS, reliability score, and nine domains. Fifty random TikTok videos were assessed to evaluate inter-rater reliability using the intraclass correlation coefficient (ICC). Subsequently, the remaining TikTok videos were evaluated using the Global Quality Score (GQS), reliability score, and nine domains. Analysis of the distribution of videos across upload years revealed a significant presence of content from 2022 and 2023, indicating a recent surge in TikTok content creation related to orthodontic treatment. Notably, 99.14% of videos were contributed by non-professional uploaders. Negative correlations between the number of likes and GQS, reliability score, and domains suggest that higher engagement (likes) is weakly associated with lower quality scores. In summary, Thai-language TikTok videos concerning orthodontic treatment exhibit low quality and reliability, as indicated by the mean reliability score (1.41), mean GQS (2.53), and mean domains (1.56). Likes, shares, and views of videos do not necessarily reflect their quality, reliability, and usefulness. Additionally, 17.24% of the high-quality, reliable, and useful videos were uploaded by orthodontists and dentists.

Keywords: TikTok, Orthodontic Treatment, DISCERN Tool, Global Quality Scale (GQS), Reliability of Information, 9 Domains of Video Content, Dentistry, Dentist, Dental, Social Media

1. Introduction

Orthodontic treatment, aimed at preventing, managing, or correcting misalignment of the teeth and jaw, has a rich history dating back to ancient civilizations. From traditional wisdom to modern techniques like braces and clear aligners, its evolution has been continuous (Orthodontics Australia, 2018). The widespread nature of orthodontic treatment is evident given its extensive historical roots.

Despite its long-standing presence as a dental specialty, orthodontic treatment has experienced a surge in popularity in various developing nations, notably Thailand, over the past decade.

Orthodontic treatment information is now widely accessible through various channels, with online social media emerging as a primary source. However, a concerning trend is the perception of orthodontic procedures as primarily cosmetic rather than medical. In Thai society, particularly among teenagers, wearing braces is increasingly viewed as fashionable and attractive.

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This growing popularity has led to the widespread availability of fashion braces, often accompanied by misconceptions. It's important to note that receiving orthodontic treatment from non-dental professionals can pose risks to natural teeth. Additionally, the global rise in the use of orthodontic clear aligners, or Invisalign, is notable. These options offer advantages such as improved aesthetics and removability compared to traditional fixed appliances, facilitating better oral hygiene management for patients.

Furthermore, the popularity of clear aligners has been fueled by marketing strategies employed by aligner manufacturers, direct-to-consumer providers, and dental professionals alike.

Moreover, TikTok serves as a significant platform for sharing orthodontic treatment-related videos, irrespective of their quality and reliability. This social media platform features short vertical videos ranging from 15 seconds to 10 minutes (Meade et al., 2022). Notably, there are minimal restrictions on the types of videos that can be uploaded, including those related to orthodontics.

TikTok boasts over 1 billion monthly active users, with the majority falling within the age range of 16 to 34, spanning from adolescents to adults (Meriç et al., 2022). The widespread availability of orthodontic content on TikTok, coupled with its large user base, raises concerns regarding potential misinformation surrounding orthodontic treatment.

While recent studies have begun examining the quality and reliability of content on mainstream platforms like TikTok and YouTube, most have focused on English-language content. Consequently, our study seeks to fill this gap by assessing the quality and reliability of Thai-language information pertaining to orthodontic treatment on TikTok. Our null hypothesis posits that the quality and reliability of orthodontic content on TikTok are high.

2. Objectives

To evaluate the quality and reliability of Thai-language videos concerning orthodontic treatment sourced from the TikTok application.

3. Materials and Methods

3.1 Method

3.1.1) Created a new TikTok account and investigated 232 selected videos

Orthodontic content on TikTok was analyzed for quality by initiating a new TikTok account named "@ggbornstobedentist." Subsequently, videos under the hashtag "#จัดฟัน" were explored, with the top 232 videos selected from the "Top" category. Only videos in the Thai language were considered, while those with non-Thai texts or audios, irrelevant content, duplicates, or lacking audio were excluded. All 232 videos meeting the inclusion criteria were compiled within a single day and stored in a Google Drive database.

3.1.2) All selected videos were grouped into 4 types of uploaders: orthodontists, non-orthodontist dental professionals (NOPDs): general dentists, dentists, etc., laypersons, and others; dental students, and staff.

3.1.3) The following videos' characteristics were recorded: number of likes, number of shares, number of comments, number of views, length (in minutes), and days since uploaded.

3.1.4) Fifty randomly selected TikTok videos were evaluated by two orthodontists using the Global Quality Scale (GQS) developed by Bernard et al. (2007), a reliability score adapted from DISCERN by Singh et al. (2012), and nine domains adapted from Maurice et al. (2022). This assessment aimed to determine inter-rater reliability using the intraclass correlation coefficient (ICC), with an ICC score qualifying inter-rater agreement at 95%.

Upon achieving the required ICC score, all 232 selected TikTok videos underwent evaluation using the GQS, reliability score, and nine domains. These evaluation tools were chosen due to their widespread utilization in assessing medical-related information on social media platforms.

The DISCERN tool, originally designed to assess the reliability of health and medical information, was adapted for this study into a modified version (see Table 1). It comprised five "yes/no" questions, with a score of one assigned for a "yes" response and zero for a "no" response. The videos were evaluated for reliability using this modified DISCERN tool and for overall video quality using the GQS (refer to Table 2).

3.2 Statistical analysis

All collected data were recorded and then evaluated by two orthodontists affiliated with the College of Dental Medicine at Rangsit University. Prior to the procedure, the interrater reliability of these two orthodontists was measured. Data obtained in this study were statistically analyzed using SPSS (Statistical Package for Social Sciences, IBM Inc., Chicago, IL, USA) version 29.0. A significance level of 0.05 was employed, wherein a P-value less than 0.05 was deemed statistically significant. Smaller P-values indicate stronger evidence against the null hypothesis.

Descriptive statistics were employed for the assessment, and the Shapiro-Wilks test was utilized to evaluate the normal distribution of the data. The results indicated a non-normal distribution of the data. Consequently, Kruskal-Wallis's test was chosen to statistically compare the four uploader types concerning GQS, reliability score, and the nine domains. For confirmation of homogeneous variables, the Mann-Whitney U test was applied to find the significant difference between groups with respect to GQS, reliability score, and the nine domains. Additionally, Spearman's correlation analysis was utilized to determine correlations among GQS, reliability score, and the nine domains, as well as correlations between these values and the characteristics of the videos (number of likes, shares, comments, views, length, and days since uploaded).

4. Results and Discussion
4.1 Results

4.1.1) Descriptive Analysis

An assessment of the quality of the selected 232 TikTok videos was conducted. A new TikTok account named "@ggbornstobedentist" was created for the purpose of searching for unbiased videos from TikTok through the hashtag "#จัดฟัน." These selected 232 videos, as outlined in Table 1, depict the characteristics of TikTok videos, highlighting uploads from 2022 (48.71%), followed by 2023 (45.26%), and the period from 2021 to 2022 (6.03%).

The result of analysis among video categories, as presented in Table 1, reveals that the majority proportion is orthodontic treatment, which is 45.26%, followed by individual experiences (25.66%), commercial (11.20%), oral care advice (6.90%), ligature color (6.47%), malpractice (3.88%), and a survey of orthodontically treated patients (0.43%), respectively.

In terms of the comparison between types of uploaders, the largest volume of videos originated from the "others" category, encompassing clinics, dental students, and staff, accounting for 44.40% of the total, followed by videos uploaded by laypersons at 38.36%, dentists at 16.38%, and orthodontists at 0.86%, respectively.

Further comparison between orthodontists and non-orthodontists (uploader type 1), it was found that the majority of uploaders were from non-orthodontists (99.14%), while orthodontists constitute only a notably small fraction (0.86%).

Similarly, the comparison of uploader type 2 (between laypersons and dentists), it was found that the predominant uploaders were from laypersons (82.76%), while dentists exhibited a smaller proportion (17.24%).

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Table 1: Frequency distribution of categorical variables

	Frequency (n)	*Percent*
Upload year		
2020	2	0.86
2021	12	5.17
2022	113	48.71
2023	105	45.26
Video categories		
Orthodontic treatment	105	45.26
Oral care advice	16	6.90
Malpractice	9	3.88
Commercial	26	11.20
Ligature color	15	6.47
Experience	60	25.86
Survey of Ortho treated patients	1	0.43
Uploader type		
Dentists	38	16.38
Orthodontists	2	0.86
Laypersons	89	38.36
Others; dental students, staffs	103	44.40
Uploader type 1		
Non-Orthodontists	230	99.14
Orthodontists	2	0.86
Uploader type 2		
Laypersons	192	82.76

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| Dentists | 40 | 17.24 |

Table 2 shows the analysis of the 232 assessed videos, showcasing the mean values for various engagement metrics. Specifically, the average number of likes per video was 66,727.40, the average number of shares was 605.08, the average number of comments was 234.25, and the average number of views was 1,128,714.99. Additionally, the average video length was 0.69 minutes, and the duration since the uploaded date, which occurred on June 1, 2023, was 210.39 days.

Furthermore, the computed mean values for the Global Quality Score (GQS) of the two researchers, reliability score, and domain value were found to be 2.53, 1.41, and 1.56, respectively.

Table 2: Descriptive statistics of quantitative data

	Mean	*SD*	*Median*	*Minimum*	*Maximum*
Likes	66,727.40	29,500.00	113,156.39	1.00	844,000.00
Shares	605.08	226.50	1,099.07	0.00	9,711.00
Comments	234.25	99.00	454.53	0.00	4,881.00
Views	1,128,714.90	625,500.00	1,582,114.20	116.00	13,500,000.00
Lengths (min)	0.69	0.37	2.28	0.09	34.00
Days since uploaded (01/06/2023)	210.39	168.50	184.16	12.00	1,216.00
GQS researcher 1	2.39	2.00	0.94	1.00	5.00
GQS researcher 2	2.67	3.00	1.24	1.00	5.00
Mean GQS	2.53	2.50	0.99	1.00	5.00
Reliability score researcher 1	0.88	1.00	0.83	0.00	3.00
Reliability score researcher 2	1.95	2.00	0.76	0.00	4.00
Mean reliability score	1.41	1.50	0.64	0.00	3.00
Domains researcher 1	0.86	1.00	0.79	0.00	4.00
Domains researcher 2	2.26	2.00	1.88	0.00	8.00
Mean Domains	1.56	1.50	1.20	0.00	5.00

GQS: Global quality score, SD: Standard deviation

4.1.2) Relationship

Table 3 presents statistically significant correlations among various variables. Notably, there were negligible negative correlations observed between the number of likes and the Global Quality Score (GQS) (r = -0.179; P = 0.006), the number of likes and the reliability score (r = -0.184; P = 0.005), as well as between the number of likes and the domains (r = -0.274; P = 0.001). Additionally, a statistically significant negligible negative correlation was found between the number of likes and the domains alone (r = -0.166; P = 0.011). Furthermore, the number of views exhibited a statistically significant weak negative correlation with the domains (r = -0.234; P = 0.001). The video lengths displayed statistically significant moderate positive correlations with the GQS (r = 0.377; P < 0.001), reliability score (r = 0.329; P < 0.001), and domains (r = 0.402; P < 0.001). Lastly, neither the number of comments nor the number of days since uploaded showed a statistically significant correlation with GQS, reliability score, or domains.

Table 3: Examination of the relationship between GQS, reliability score, and domains in terms of comment no., like no., and share no. Values.

	GQS	Reliability	Domains
Likes no.			
r	-.179**	-.184**	-.274**
p-value	0.006	0.005	<.001
Shares no.			
r	-0.012	0.048	-.166*
p-value	0.855	0.465	0.011
Comments no.			
r	0.022	0.046	-0.107
p-value	0.737	0.483	0.105
Views no.			
r	-0.082	-0.087	-.234**
p-value	0.211	0.186	<.001
Lengths (min.)			
r	.377**	.329**	.402**
p-value	<.001	<.001	<.001

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Days since upload (days)			
r	-0.063	-0.136	-0.134
p-value	0.483	0.129	0.136

r: Spearman Correlation

In this investigation, a statistically significant positive correlation was observed between the Global Quality Score (GQS) and reliability score values (r = 0.672; P < 0.001), as well as between the GQS and domain values (r = 0.651; P < 0.001). Additionally, a significant positive correlation was identified between reliability score and domain values (r = 0.514; P < 0.001).

Table 4: Examination of the relationship between GQS, reliability score, and domain values.

	GQS	*Reliability*	*Domains*
GQS			
r	1		
p-value	-		
Reliability			
r	.672**	1	
p-value	<.001	-	
Domains			
r	.651**	.514**	1
p-value	<.001	<.001	-

r: Spearman Correlation

4.1.3) Examination of inter-rater agreement
Table 5 shows the intraclass correlation coefficient (ICC) results, indicating a statistically significant and strong level of agreement between the two researchers concerning GQS (ICC = 0.865; P < 0.001). Furthermore, there was a statistically significant and strong level of agreement in terms of the reliability score (ICC = 0.862; P=0.001) and a statistically significant and strong level of agreement regarding the domain (ICC = 0.888; P < 0.001).

Table 5: Examination of inter-rater agreement.

	ICC (95% CI)	*P-value*

GQS	0.865 (0.762-0.923)	<0.001
Reliability score	0.862 (0.757-0.922)	0.001
Domains	0.888 (0.803-0.937)	<0.001

GQS: Global quality score, ICC: Intraclass correlation coefficient, CI: Confidence interval

4.1.4) Comparison analysis

Table 6 illustrates a comparative analysis of category descriptive factors between the Global Quality Score (GQS), reliability score, and domain values. As part of our analytical approach, we employed the Kolmogorov-Smirnov test to assess the normal distribution of the data. The results indicated a non-normal distribution of the data (p-value < 0.05), leading to the rejection of the null hypothesis, which posits that the dataset is normally distributed.

The results of the Kruskal-Wallis's test for comparisons involving more than two groups are as follows:

• There were no statistically significant differences in the median scores of GQS, reliability score, and domain values between videos uploaded throughout the four years.

• The median scores of GQS (KW = 63.642; p-value < 0.001), reliability score (KW = 30.576; p-value < 0.001), and domains (KW = 47.489; p-value < 0.001) showed statistically significant differences across the seven groups of video categories.

• There were statistically significant differences in the median scores of GQS (KW = 17.612; p-value < 0.001) and domains (KW = 8.872; p-value = 0.031) among the videos submitted by participants in all four groups, but not in the reliability score.

The following are the results after more investigation using the Mann-Whitney U test for two categories:

• There was no statistically significant difference between the two groups when uploaders were classified as orthodontists and non-orthodontists and the GQS, reliability score, and domain values were assessed (Note: Orthodontists constituted just 2 samples, a noteworthy observation).

• There were statistically significant differences in the median GQS (U = 2,467.00; p-value < 0.001), reliability (U = 2,911.00; p-value = 0.013), and domain (U = 2,867.00; p-value = 0.011) scores between videos submitted by laypersons, others, and dentists. In table 4, the median scores for videos distributed by dentists were noticeably higher than those uploaded by laypeople or others.

Table 6: Comparison of GQS, reliability score, and domains values according to categorical descriptive variables.

	GQS		Reliability score		Domains	
	Mean ± SD	Med. (Min.-Max.)	Mean ± SD	Med. (Min.-Max.)	Mean ± SD	Med. (Min.-Max.)
Upload year						
2020	4.50 ± 0.71	4.50 (4.00-5.00)	2.50 ± 0.71	2.50 (2.00-3.00)	3.75 ± 1.06	3.75 (3.00-4.50)
2021	2.33 ± 1.17	2.25 (1.00-5.00)	1.42 ± 0.60	1.50 (0.50-2.00)	1.29 ± 1.12	1.00 (0.00-3.50)
2022	2.57 ± 0.99	2.50 (1.00-5.00)	1.35 ± 0.65	1.50 (0.00-3.00)	1.56 ± 1.20	1.50 (0.00-5.00)
2023	2.48 ± 0.95	2.50 (1.00-5.00)	1.46 ± 0.62	1.50 (0.00-3.00)	1.54 ± 1.19	1.50 (0.00-4.50)
Test statistics	KW = 6.058		KW = 6.600		KW = 4.901	
P-value	0.109		0.086		0.179	
Video categories						
Orthodontic treatment	2.97 ± 0.96	3.00 (1.00-5.00)	1.59 ± 0.59	1.50 (0.00-3.00)	1.95 ± 1.27	1.50 (0.00-5.00)
Oral care advice	2.94 ± 0.79	3.00 (1.50-4.50)	1.62 ± 0.65	1.50 (0.50-3.00)	1.47 ± 0.50	1.50 (0.50-2.00)
Malpractice	2.11 ± 1.34	2.00 (1.00-4.50)	1.11 ± 0.60	1.50 (0.50-2.00)	0.72 ± 0.94	1.50 (0.00-3.00)
Commercial	1.90 ± 0.51	2.00 (1.00-3.00)	1.15 ± 0.42	1.50 (0.50-2.00)	1.12 ± 1.16	1.50 (0.00-3.50)

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Ligature color	1.50 ± 0.33	1.50 (1.00-2.00)	0.87 ± 0.48	1.00 (0.00-1.50)	0.20 ± 0.25	0.50 (0.00-0.50)
Experience	2.24 ± 0.87	2.25 (1.00-4.50)	1.37 ± 0.71	1.00 (0.00-3.00)	1.58 ± 1.03	0.50 (0.00-3.50)
Survey of ortho treated patients	2.50 ± 0.00	2.50 (2.50-2.50)	0.50 ± 0.00	1.00 (0.50-0.50)	0.00 ± 0.00	0.00 (0.00-0.00)
Test statistics	KW = 63.642		KW = 30.576		KW = 47.489	
P-value	<.001		<.001		<.001	
Uploader						
Dentists	3.08 ± 1.11	3.00 (1.00-5.00)	1.63 ± 0.62	1.50 (0.50-3.00)	2.00 ± 1.34	2.00 (0.00-4.50)
Orthodontists	3.25 ± 1.06	3.25 (2.50-4.00)	2.25 ± 1.06	2.25 (1.50-3.00)	2.50 ± 0.71	2.50 (2.00-3.00)
Laypersons	2.24 ± 0.83	2.50 (1.00-4.50)	1.33 ± 0.62	1.50 (0.00-3.00)	1.55 ± 1.10	1.50 (0.00-4.00)
Others; dental students, staffs	2.56 ± 0.99	2.50 (1.00-5.00)	1.39 ± 0.64	1.50 (0.00-3.00)	1.38 ± 1.21	1.00 (0.00-5.00)
Test statistics	KW = 17.612		KW = 7.538		KW = 8.872	
P-value	<.001		0.057		0.031	
Uploader type 1						
Non-Orthodontist	2.52 ± 0.99	2.50 (1.00-5.00)	1.41 ± 0.63	1.50 (0.00-3.00)	1.55 ± 1.20	1.50 (0.00-5.00)
Orthodontist	3.25 ± 1.06	3.25 (2.50-4.00)	2.25 ± 1.06	2.25 (1.50-3.00)	2.50 ± 0.71	2.50 (2.00-3.00)

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Test statistics	U = 130.50				U = 107.00	
P-value	0.286		0.184		0.189	
Uploader type 2						
Laypersons/Others	2.41 ± 0.93	2.50 (1.00-5.00)	1.36 ± 0.63	1.50 (0.00-3.00)	1.46 ± 1.16	1.50 (0.00-5.00)
Dentists	3.09 ± 1.09	3.00 (1.00-5.00)	1.66 ± 0.64	1.50 (0.50-3.00)	2.03 ± 1.32	2.00 (0.00-4.50)
Test statistics	U = 2,467.00		U = 2,911.00		U = 2,867.00	
P-value	<.001		0.013		0.011	

KW: Kruskal–Wallis's test statistics, U: Mann–Whitney U-test statistics. GQS: Global quality score, SD: Standard deviation, Med: Median, Min: Minimum, Max: Maximum.

4.2 Discussion

TikTok, a popular short video application worldwide, boasts over 1 billion downloads (Meriç et al., 2022). In Thailand, the latest available data from January 2023 indicates a staggering 39.5 million TikTok users, with a growth rate of 1.12%. It's evident that younger generations devote significant time to this platform, using it to explore various interests online, including orthodontic content, which remains popular among adolescents. However, there's a growing concern regarding the presence of misleading or incorrect information on TikTok, potentially leading to harmful consequences for the public.

This study's aim is to evaluate the quality and reliability of the Thai-language videos relating to orthodontic treatment obtained from the TikTok application. To the best of our knowledge, while there have been two studies (Meriç et al., 2022 and Meade et al., 2022) evaluating the quality and reliability of video content about orthodontics on TikTok, no prior research has specifically examined Thai-language videos on TikTok.

As it is known, TikTok is the fastest-growing social media platform globally, where short videos ranging from 15 to 60 seconds are shared and amplified. With its availability in over 150 countries, the app is reported to have more than 800 million active users. The TikTok algorithm prioritizes the videos based on audience engagement metrics such as likes. This method is different from other video-based platforms, such as, YouTube. YouTube allows for unlimited video length, granting users greater control over the content they choose to watch. The majority of TikTok users are young individuals, with 63.5% reported to be under the age of 29. Given that the app is primarily popular among those under 30, it was anticipated that the age of both researchers, who are in their early 40s, would not significantly impact the perspective difference between them and the app's users. Furthermore, there was a statistically significant and excellent agreement between the two researchers regarding the GQS value (ICC = 0.921; P < 0.001) and the reliability score (ICC = 0.931; P < 0.001).

The distribution of videos across upload years highlights a notable prevalence of content from 2022 and 2023, signaling a recent surge in TikTok content creation concerning orthodontic treatment. This dominance of orthodontic treatment videos resonates with the platform's popularity for sharing individual experiences and advice.

The majority of videos were contributed by non-professional uploaders, comprising laypersons and others, showcasing a diverse array of viewpoints. In contrast, orthodontists and dentists made a smaller

contribution, highlighting a communal platform that fosters the sharing of information from both individuals and experts alike. Remarkably, videos uploaded by dentists demonstrate higher quality, reliability, and utility compared to those created by laypersons.

The negative correlations between the number of likes and GQS, reliability score, and domains imply that higher engagement (likes) is weakly linked to lower quality scores. This raises questions about the factors influencing user engagement and perceptions of quality. Whereas positive correlations between GQS, reliability score, and domains suggest that as one aspect improves, the others tend to follow suit, indicating internal consistency in the assessment. This might imply that popular videos may not necessarily be videos with consistently important levels of credibility. Furthermore, the number of likes on videos is directly correlated with the followers of the account.

The Mann-Whitney U tests revealed no significant difference between orthodontists and non-orthodontists, but a significant difference in scores between videos submitted by laypersons, others, and dentists could be identified.

Based on our analysis of trending TikTok videos, specific attributes stand out, including captivating opening lines, cohesive keyword usage, and pertinent content. Based on our analysis of trending TikTok videos, specific attributes stand out, including captivating opening lines, cohesive keyword usage, and pertinent content. This ensures that the content remains consistent with the video's overarching theme. Integrating hashtags recommended by TikTok could amplify the visibility of the videos, aligning with popular trends and expanding their reach to a broader audience. Numerous respected content creators share multiple videos daily, while those with established reputations may adhere to a consistent posting schedule of at least three videos per day. This consistency aids in sustaining audience engagement and expanding the follower base. Moreover, an engaging speaking tone can captivate the audience's attention, enhancing the overall appeal of the content.

When compared to another research, Meriç et al. (2022), in Turkey, the study evaluated the quality and reliability of videos about orthodontics on TikTok, using the same tools as our study. However, we expanded our evaluation to include nine domains for assessing high or low content, which will represent the usefulness of the videos. In our research, the mean Global Quality Score (GQS) and reliability score were 2.53 and 1.41, respectively. Meriç et al. reported a GQS of 2.1 and a reliability score of 1.2 in their study. Meade et al. (2022) examined TikTok videos on orthodontic retention, finding poor content, reliability, and quality. They also identified strong associations between high-content videos and reliability and quality scores. Additionally, another study by Meade et al. (2022) focused on orthodontic clear aligners and TikTok videos, revealing that laypersons (44.4%) and orthodontists (35.9%) uploaded the majority of videos. The analysis showed poor content, reliability, and quality of TikTok videos related to orthodontic clear aligners.

Our study had some limitations. It focused solely on the hashtag #จัดฟัน, and all assessed videos were in Thai. This could limit their relevance to non-English speakers and potentially result in the omission of certain orthodontic content. Additionally, due to time constraints, the results may not accurately reflect the reliability of the general population. Therefore, a larger sample size would be necessary to represent the worldwide population. Given the dynamic nature of content on the platform, the analysis in this study may also have limitations. Moreover, this study could serve as a pilot investigation for Thai-language orthodontic TikTok content and was viewed as a roadmap for any subsequent studies. In future research, the scope of the study could be broadened to encompass a wider range of orthodontic content and additional languages. An expanded inquiry should help reduce any ambiguity in the criteria and be more precise.

Other than that, it is suggested that multiple raters could be added to the study. However, it should be acknowledged that achieving nearly perfect agreement (ICC = 0.9) is uncommon. Though, to improve

interrater reliability, it should be ensured that clear guidelines are established and training of the research team on capturing data accurately and consistently is done.

5. Conclusion

1.) Most Thai-language videos related to orthodontic treatment on the TikTok application have low quality and reliability and are considered less useful.
2.) Likes, shares, and views of videos do not indicate the quality, reliability, and usefulness of the videos.
3.) A minority of the high quality, reliability, and usefulness of videos are uploaded, which were mostly created by orthodontists and dentists.

6. Acknowledgements

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