ORIGINAL ARTICLE

YouTube as a source of information for pressure injury: Quality assessment and content analysis

Myeonghwan Bang[1,2] | Chan Woong Jang[3] | Han Eol Cho[3] |
Hyoung Seop Kim[1]

[1]Department of Physical Medicine and Rehabilitation, National Health Insurance Service Ilsan Hospital, Goyang, Republic of Korea

[2]Department of Integrative Medicine, Yonsei University Graduate School, Seoul, Republic of Korea

[3]Department of Rehabilitation Medicine, Gangnam Severance Hospital, Rehabilitation Institute of Neuromuscular Disease, Yonsei University College of Medicine, Seoul, Republic of Korea

Correspondence
Hyoung Seop Kim, Department of Physical Medicine and Rehabilitation, National Health Insurance Service Ilsan Hospital, 100 Ilsan-ro, Goyang 10444, Republic of Korea.
Email: rehappydoc@gmail.com

Abstract

We aimed to assess the quality and reliability of pressure injury-related videos uploaded on YouTube, analyse the sources and contents, and examine the correlation between video parameters. We searched YouTube using two keywords, "pressure ulcer" and "pressure sore", on August 20, 2022. We sorted the videos according to their number of views and included the top 100 videos for each keyword. The quality of videos was assessed using the Global Quality Scale (GQS), while their reliability was evaluated by the modified DISCERN (mDIS-CERN) tool. In addition, we evaluated the videos in which content was included, analysed the correlations and differences between GQS, mDISCERN, and video parameters. We initially found a total of 100 videos for each keyword and finally included and analysed 77 videos. The mean scores for the mDIS-CERN and GQS were 2.35 ± 0.98 and 3.09 ± 0.99, respectively. Both GQS and mDISCERN showed statistically significant correlations with each other (rho $= 0.54$, $p < 0.0001^*$) and with the length of the videos, respectively (rho $= 0.36$, $p = 0.001^*$), (rho $= 0.29$, $p = 0.01^*$). Of the videos created by physicians, 8 (57.1%) included content related to treatment, while of the videos created by nonphysician health personnel, 22 (57.9%) included content related to prevention. Analysing whether there were differences in video parameters based on the sources, we observed significant differences between sources in GQS ($p < 0.0001^*$), mDISCERN ($p < 0.0001^*$), and video length ($p = 0.001^*$). In the post-hoc analysis, videos uploaded by physicians or nonphysician health personnel showed higher quality and reliability than videos uploaded by other sources. Therefore, the results of this study could be useful for healthcare

providers, as well as patients and caregivers, to search for high-quality and reliable YouTube videos related to pressure injury.

Key Messages
- The quality and reliability of videos uploaded by physicians and non-physician health personnel were higher.
- Physicians primarily uploaded videos about treatment, while nonphysician health personnel predominantly shared content related to prevention.
- These results could be useful to find YouTube videos related to pressure injury.

1 | INTRODUCTION

Pressure injury refers to localized damage to the skin and underlying soft tissue, usually over a bony prominence or related to a medical or other device.[1] Despite the advancement of medicine and the increasing attention toward pressure injury, it remains a critical issue for patients with paralysis who have to remain bedridden for long periods of time.[2] In the United States, an estimated 3 million patients are treated for pressure injury annually.[3] This not only decreases the quality of life for patients but also leads to an increase in mortality rates, ultimately becoming a significant burden on the healthcare system.[4] If pressure injury has already occurred, it is crucial to provide appropriate treatment and educate patients and caregivers about pressure injury to prevent recurrence.[5] Health professionals such as physicians and nurses acquire knowledge about pressure injury through textbooks, research papers, conferences, and other sources. However, it could be challenging for patients and caregivers to obtain accurate and high-quality information related to pressure injury.[6]

Recently, with the increase in internet accessibility, many people have obtained medical information through the internet.[7,8] In particular, YouTube has become the most prominent source for obtaining information on various topics, including healthcare.[9] However, YouTube allows anyone to upload videos without restrictions except violating YouTube policies, which raises significant concerns regarding the quality and reliability of videos related to medical information.[10,11] YouTube is actively addressing this issue by grating verification marks to reliable health information channels. Nevertheless, as of now, it remains very challenging for patients and caregivers to obtain information with high quality and reliability.

A lot of videos about pressure injury can be found on YouTube, it is unclear how accurate and reliable this information is. There has been no research evaluating videos related to pressure injury.[12] Since it is important for patients and caregivers to understand and participate in the treatment process of pressure injury,[13] research on how to choose YouTube videos for pressure injury is required.
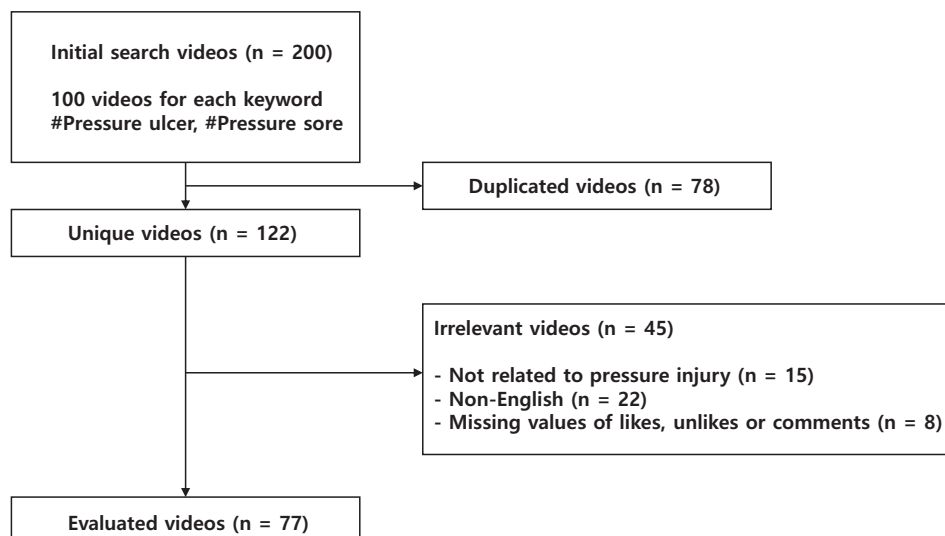
Therefore, the primary objective of this study is to evaluate the quality and reliability of videos related to pressure injury. The second objective is to analyse the sources that provide the videos and examine the content they include. The last goal is to examine the differences in video parameters, including quality and reliability, among sources that provide videos.

2 | MATERIALS AND METHODS

2.1 | Video selection

On August 20, 2022, we logged into YouTube with a US account and searched for videos using two keywords: "pressure ulcer" and "pressure sore". "Pressure ulcer" and "sore" were widely used terms after the 1980s. However, in 2016, the National Pressure Ulcer Advisory Panel standardized the terminology to "pressure injury."[1] However, considering that the average posting duration of the videos found on YouTube was approximately 8 years and considering the timing of the transition to the term "pressure injury," it could be deemed appropriate to use the widely used terms "pressure ulcer" and "pressure sore" as search terms. These terms have been commonly used in the past and are still widely recognized today. Taking into consideration that 90% of YouTube viewers watch videos within the first three pages of search results,[14] we sorted the videos based on the number of views and included the top 100 videos for each keyword.

Initial search videos (n = 200)

100 videos for each keyword
#Pressure ulcer, #Pressure sore

Duplicated videos (n = 78)

Unique videos (n = 122)

Irrelevant videos (n = 45)

- Not related to pressure injury (n = 15)
- Non-English (n = 22)
- Missing values of likes, unlikes or comments (n = 8)

Evaluated videos (n = 77)

Out of the initial 200 videos recruited, we excluded 78 duplicate videos, 15 videos that were not related to pressure injury, 22 videos that were not in English, and 8 videos for which likes, dislikes, or comments were not available due to the public settings of video itself. As a result, a total of 77 videos were included and analysed (Figure 1).

2.2 | Video parameters

For each video, we collected data on the duration (in days) since posting, length (in seconds), number of views, likes, dislikes, and comments. When comparing parameters based on the video source, we adjusted for bias caused by the posting duration. To do this, we divided the total number of views, likes, dislikes, and comments by the posting duration (in days) to calculate the values per day, which were then used for comparison.

2.3 | Assessment of quality and reliability

The quality of the videos was evaluated using the Global Quality Scale (GQS) as described in Table S1. GQS is a tool devised by Bernard et al. to assess the quality of video content and is commonly used for analysing the quality of various YouTube videos.[15] The GQS is structured as a five-point scale and includes evaluations for flow, ease of video use, and video quality. Based on the scores, 4–5 indicates high quality, 3 represents intermediate quality, and 1–2 indicates low quality of the video.[16]

Reliability was evaluated using the modified DISCERN (mDISCERN (no acronym)) tool as described in Table S2. This tool, originally designed by Charnock et al., is used to evaluate the reliability of YouTube videos and consists of a two-point scale with five questions.[17] Each question is scored as 1 for yes and 0 for no, with a maximum total score of 5. An mDISCERN score of 3 or higher is considered to indicate significant reliability.[18]

2.4 | Sources of videos

The sources that uploaded the videos were classified into four categories: (1) physicians, (2) nonphysician health personnel (such as nurses), (3) patients, and (4) other media sources (such as profit organizations and advertising agencies). If the source was unclear or unknown, they categorized it as "other media source."

2.5 | Videos content

We analysed each video to determine which content it included among the categories of risk factor, assessment, prevention, and treatment.[19,20] Some videos included two or more pieces of content, and we counted them separately.

2.6 | Video assessment and content analysis

Two independent physiatrists (MHB and CWJ) evaluated the videos using the GQS and mDISCERN tools and

analysed the sources and contents. In case of any discrepancies in scores for the same video, they reached a consensus through discussion.

2.7 | Analysis of the basic characteristics of the videos

First, we conducted a correlation analysis between the two scores of GQS and mDISCERN, as well as parameters such as video length, duration, number of views, likes, dislikes, and comments.

Next, we compared whether there were differences in parameters based on the four sources of videos: physicians, nonphysician health personnel, patients, and other media sources. In this case, as mentioned before, we used values per day to compare and adjust for biases caused by the posting duration.

2.8 | Statistical analysis

Descriptive data are presented as the mean, standard deviation, minimum, and maximum. For the correlation analysis between general features of videos, Spearman's correlation test was used. To analyse differences in video parameters based on the video source, the Kruskal-Wallis test was used, and post-hoc analysis was conducted using the Mann-Whitney test. A p value of less than 0.05 was considered statistically significant, and the statistical analysis was performed using SPSS version 21.0 for Windows (SPSS Inc., Chicago, IL, USA).

2.9 | Ethical approval

This research did not require approval from the Institutional Review Board because it did not involve human subjects.

3 | RESULTS

3.1 | Basic characteristics

The baseline characteristics of the videos, including the video posting duration (in days), video length (in seconds), number of views, likes, dislikes and comments, mDISCERN, and GQS, are summarized in Table 1. The mean scores of the mDISCERN and GQS were 2.35 ± 0.98 and 3.09 ± 0.99, respectively.

TABLE 1 Basic characteristics of the videos.

Video features	Mean ± SD (Min-Max)
Posting durations (days)	2628.30 ± 1581.11 (27–5578)
Video length (seconds)	578.61 ± 662.07 (26–3462)
Number of views	162108.30 ± 793906.20 (9934–6 996 316)
Number of likes	1070.65 ± 4776.42 (3–40 579)
Number of dislikes	80.38 ± 482.10 (0–4242)
Number of comments	76.91 ± 358.06 (0–2800)
mDISCERN	2.35 ± 0.98 (0–5)
GQS	3.09 ± 0.99 (1–5)

SD, standard deviations; Min, minimum; Max, maximum; mDISCERN, modified DISCERN; GQS, Global Quality Scale.

3.2 | Correlations between basic characteristics of the videos

Among the general features of the videos, GQS was moderately correlated with length (rho = 0.36*), number of likes (rho = 0.35*) and mDISCERN (rho = 0.54*). However, mDISCERN was weakly correlated with the length (rho = 0.29*) and the number of dislikes (rho = 0.26*) (Table 2).

3.3 | Comparison of differences by video sources

Of the 77 videos, 14 (18.2%), 38 (49.3%), 4 (5.2%), and 21 (27.3%) were produced by physicians, nonphysician health personnel, patients, and other media, respectively.

Out of the 14 (18.2%) videos produced by physicians, 2 (2.6%) were evaluated as high quality, 9 (11.7%) as intermediate quality, and 3 (3.9%) as low quality. Furthermore, in terms of content, of the 14 videos evaluated, 8 (57.1%) videos primarily focused on treatment, followed by 5 (35.7%) videos on assessment and 3 (21.4%) videos on risk factors (Table 3). Out of the 38 (49.3%) videos uploaded by nonphysician health personnel, 22 (28.5%) were evaluated as high quality, 12 (15.6%) as intermediate quality, and 4 (5.2%) as low quality. In terms of content, of the 38 videos evaluated, 22 (57.9%) videos primarily focused on prevention, followed by 20 (52.6%) videos on risk factors, 17 (44.7%) videos on assessment, and 7 (18.4%) videos on treatment (Table 3).

We classified the videos into different sources, including physicians, nonphysician health personnel, patients, and other media groups, and compared the differences in video parameters. There were significant differences

TABLE 2 Spearman's correlation coefficients between the basic characteristics of the videos.

	Length	Views	Duration	Likes	Dislikes	Comments	mDISCERN
GQS	**0.36* (0.001)**	0.14 (0.22)	−0.18 (0.13)	**0.35* (0.002)**	0.22 (0.05)	0.07 (0.55)	**0.54* (<0.0001)**
mDISCERN	**0.29* (0.01)**	0.18 (0.12)	−0.06 (0.58)	0.20 (0.08)	**0.26* (0.02)**	0.05 (0.68)	

mDISCERN, modified DISCERN; GQS, Global Quality Scale.
*$p < 0.05$ (bold).

TABLE 3 Characteristics of the videos according to sources.

Source	Physician	Nonphysician health personnel	Patient	Other media	
GQS					Total
Low (GQS 1, 2)	3 (3.9%)	4 (5.2%)	4 (5.2%)	9 (11.7%)	20 (26.0%)
Intermediate (3)	9 (11.7%)	12 (15.6%)	0	8 (10.4%)	29 (37.7%)
High (4, 5)	2 (2.6%)	22 (28.5%)	0	4 (5.2%)	28 (36.3%)
Total	14 (18.2%)	38 (49.3%)	4 (5.2%)	21 (27.3%)	77 (100%)
Contents					
Risk factor	3 (21.4%)	20 (52.6%)	1 (25.0%)	13 (61.9%)	
Assessment	5 (35.7%)	17 (44.7%)	0	7 (33.3%)	
Prevention	0	22 (57.9%)	3 (75.0%)	12 (57.1%)	
Treatment	8 (57.1%)	7 (18.4%)	1 (25.0%)	4 (19.0%)	

GQS, Global Quality Scale.

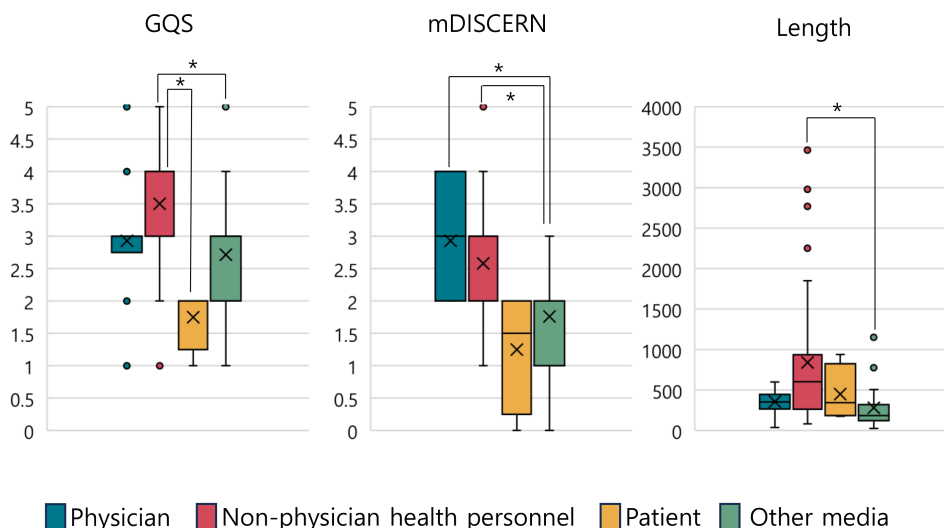**TABLE 4** Comparison of the video parameters between the sources.

Source Median (Min-Max)	Physician	Nonphysician health personnel	Patient	Other media	*p* value
GQS	3 (1–5)	4 (1–5)	2 (1–2)	3 (1–5)	**<0.0001***
mDISCERN	3 (2–4)	3 (1–5)	1.5 (0–2)	2 (0–3)	**<0.0001***
Length	351.5 (36–600)	602.5 (81–3462)	342.5 (176–938)	185 (26–1151)	**0.001***
Views per day	15.23 (2.74–10154.30)	19.13 (2.26–239.80)	8.86 (4.62–532.77)	22.06 (2.11–394.78)	0.81
Likes per day	0.05 (0.00–58.90)	0.08 (0.00–3.27)	0.06 (0.00–23.14)	0.09 (0.00–9.33)	0.85
Dislikes per day	0.005 (0.00–6.16)	0.007 (0.00–0.09)	0.002 (0.00–0.31)	0.006 (0.00–0.11)	0.68
Comments per day	0.006 (0.00–4.06)	0.004 (0.00–0.30)	0.006 (0.00–3.11)	0.003 (0.00–0.85)	0.37

*Min, minimum; Max, maximum; mDISCERN, modified DISCERN; GQS, Global Quality Scale.

in the GQS ($p < 0.0001$*), mDISCERN ($p < 0.0001$*), and video length ($p = 0.001$*) between the groups (Table 4). However, there were no significant differences in the number of views, likes, dislikes, and comments per day ($p > 0.05$). In the post-hoc analysis, the GQS scores between the nonphysician health personnel and patients ($p = 0.001$*) and between the nonphysician health personnel and other media ($p = 0.002$*) showed significant differences. The mDISCERN scores between physicians and other media ($p = 0.001$*) and between nonphysician health personnel and other media ($p = 0.001$*), showed significant differences. The video length between the nonphysician health personnel and other media ($p < 0.0001$*) showed a significant difference (Figure 2.).

4 | DISCUSSION

Especially in the case of pressure injury, it is important for patients and caregivers to participate in the treatment process, obtaining accurate information on YouTube may be crucial. Therefore, we conducted research on how to obtain more accurate videos. In this study, we identified 77 YouTube videos related to pressure injury, assessed the quality and reliability, and analysed the sources and contents of them. Our analysis revealed that physicians focused primarily on treatment-related information, while nonphysician health personnel provided content mainly related to prevention. The quality and reliability of videos uploaded by physicians and non-physician

FIGURE 2 Post-hoc analysis of GQS, mDISCERN, and video length between the sources.

health personnel were somewhat higher. Furthermore, videos with higher reliability tended to show higher quality.

In the results of this study, the distribution of video quality and reliability varied, and the averages were not high, with mDISCERN at 2.35 and GQS at 3.09. These results were consistent with those of previous studies that analysed YouTube videos on medical topics.[21–23] This is likely due to the inherent limitations of YouTube videos, where anyone can upload content without peer review. However, in contrast with previous studies, the proportion of videos showing high quality was relatively higher at 28 (36.3%).[21,23] One possible inference for this is that, compared to specialized or novel medical topics, videos related to pressure injury may have been created by providers with the intention of educating patients and caregivers.[24]

The content of the videos also showed variations depending on content producers. There was a tendency for each provider to compose videos related to their primary roles within the healthcare system. Among the videos by physicians, treatment was the most common content, with 8 (57.1%).[25] Among the videos by nonphysician health personnel, prevention was the most common topic with 22 (57.9%), followed by risk factors with 20 (52.6%), assessment with 17 (44.7%), and treatment with 7 (18.4%) videos.[26] It is likely that physicians primarily focus on treatment strategies, while nonphysician health personnel, such as nurses, tend to emphasize education on risk factors and prevention methods.[5,27]

Videos by physicians or nonphysician health personnel exhibited higher quality and reliability than videos by other sources. In GQS, videos by nonphysician health personnel scored higher than those by patients or other media sources. On the other hand, in mDISCERN, videos by both physicians and nonphysician health personnel scored higher than videos by other media sources. Previous studies have also shown that videos produced by health professionals tend to exhibit higher quality and reliability, while videos created by for-profit organizations or advertising agencies tend to have lower quality.[22,28] This consistency between our research findings and previous studies may be attributed to the fact that health professionals create videos with the primary intention of educating patients and caregivers based on their professional knowledge.

The correlation analysis between variables revealed that as the length of the video increased, both quality and reliability showed a significant positive correlation. Indeed, it is reasonable to think that longer videos have the potential to include a broader range of content and provide more detailed information.[29] Additionally, longer videos are mainly produced by nonphysician health personnel, which suggests that they produce and upload more accurate and reliable videos than other media sources. Furthermore, GQS and mDISCERN showed a significant positive correlation with each other (rho = 0.54*), and it can be concluded that videos demonstrating high quality are also more reliable. This is likely because the mDISCERN tool, used to evaluate reliability, includes questions regarding the citation of valid sources, the provision of balanced information, and the presence of references. Therefore, as reliability increases, it is plausible that videos with higher quality could be produced.[30] On the other hand, views, comments, and duration did not show significant correlations with quality and reliability. This suggests that views and comments may be influenced more by the duration of the video

being posted rather than the quality and reliability of the video itself.

The strength of this study is that it is the first to evaluate the quality and reliability of YouTube videos related to pressure injury and analyse their content. These findings can provide useful information not only to providers but also to patients and caregivers who watch videos related to pressure injury. For instance, to find videos with high quality and reliability, it would be advisable for patients and caregivers to seek videos uploaded by health professionals. Furthermore, when looking for videos related to treatment, it is advisable to search videos created by physicians. On the other hand, if you want to find videos related to prevention, it is recommended to seek videos made by nonphysician health personnel. Additionally, selecting longer videos is a good strategy to choose videos with higher quality and reliability.

However, this study does have several limitations. First, due to the analysis being conducted on videos uploaded at a specific point in time, the analysis did not include the most recent videos that are continuously being uploaded. However, enrolling the top 100 most viewed videos for each search term provided sufficient coverage to analyse the overall trends and patterns of videos related to pressure injury.[14] Second, the use of only the search terms "pressure ulcer" and "pressure sore" is another limitation. From 2016, "pressure injury" started to be used as the standardized terminology.[1] Considering the average posting duration of approximately eight years for the videos, it was deemed more reasonable to use the search terms "pressure ulcer" and "pressure sore" for the analysis. It is likely that the use of the term "pressure injury" will increase in the future; therefore, it would be advisable to use it as the main search term. Furthermore, the subjective nature of the mDISCERN tool used for analysing quality and the GQS used for analysing reliability is also a limitation of this study. Indeed, by having two physiatrists independently evaluate and reach a consensus through discussion, potential biases were minimized in the study.

5 | CONCLUSION

Physicians focused primarily on treatment-related information, while nonphysician health personnel provided content mainly related to prevention. The higher reliability was associated with higher quality, and longer videos tended to have higher reliability and quality. Videos produced by health professionals tend to exhibit higher quality and reliability. The results of this study could serve as a valuable reference for patients and caregivers to find appropriate information about pressure injury on YouTube platform.

CONFLICT OF INTEREST STATEMENT
The authors declare that they have no competing interests.

DATA AVAILABILITY STATEMENT
Data available on request from the authors.

ORCID
Myeonghwan Bang https://orcid.org/0000-0002-5560-2397
Chan Woong Jang https://orcid.org/0000-0002-5037-0080
Han Eol Cho https://orcid.org/0000-0001-5625-3013
Hyoung Seop Kim https://orcid.org/0000-0002-5310-4802

REFERENCES
1. Panel, N.P.U.A. *National Pressure Ulcer Advisory Panel (NPUAP) Announces a Change in Terminology from Pressure Ulcer to Pressure Injury and Updates the Stages of Pressure Injury.* NPUAP; 2016.
2. Mervis JS, Phillips TJ. Pressure ulcers: pathophysiology, epidemiology, risk factors, and presentation. *J Am Acad Dermatol.* 2019;81(4):881-890.
3. Hajhosseini B, Longaker MT, Gurtner GC. Pressure Injury. *Ann Surg.* 2020;271(4):671-679.
4. Song YP, Shen HW, Cai JY, Zha ML, Chen HL. The relationship between pressure injury complication and mortality risk of older patients in follow-up: a systematic review and meta-analysis. *Int Wound J.* 2019;16(6):1533-1544.
5. Latimer S, Chaboyer W, Gillespie B. Patient participation in pressure injury prevention: giving patient's a voice. *Scand J Caring Sci.* 2014;28(4):648-656.
6. McInnes E, Chaboyer W, Murray E, Allen T, Jones P. The role of patients in pressure injury prevention: a survey of acute care patients. *BMC Nurs.* 2014;13(1):1-8.
7. Diaz JA, Griffith RA, Ng JJ, Reinert SE, Friedmann PD, Moulton AW. Patients' use of the internet for medical information. *J Gen Intern Med.* 2002;17(3):180-185.
8. Larner A. Searching the internet for medical information: frequency over time and by age and gender in an outpatient population in the UK. *J Telemed Telecare.* 2006;12(4):186-188.
9. Madathil KC, Rivera-Rodriguez AJ, Greenstein JS, Gramopadhye AK. Healthcare information on YouTube: a systematic review. *Health Informatics J.* 2015;21(3):173-194.
10. Osman W, Mohamed F, Elhassan M, Shoufan A. Is YouTube a reliable source of health-related information? A systematic review. *BMC Med Educ.* 2022;22(1):382.
11. Jang C, Bang M, Park J, Cho H. Impact of changes in clinical practice guidelines for intra-articular injection treatments for knee osteoarthritis on public interest and social media. *Osteoarthr Cartil.* 2023;31(6):793-801.

12. Drozd B, Couvillon E, Suarez A. Medical YouTube videos and methods of evaluation: literature review. *JMIR Med Educ.* 2018; 4(1):e8527.

13. Tharu NS, Alam M, Bajracharya S, Chaudhary GP, Pandey J, Kabir MA. Caregivers' knowledge, attitude, and practice toward pressure injuries in spinal cord injury at rehabilitation center in Bangladesh. *Adv Orthop.* 2022;2022:1-9.

14. Tolu S, Yurdakul OV, Basaran B, Rezvani A. English-language videos on YouTube as a source of information on self-administer subcutaneous antitumor necrosis factor agent injections. *Rheumatol Int.* 2018;38(7):1285-1292.

15. Bernard A, Langille M, Hughes S, Rose C, Leddin D, Veldhuyzen van Zanten S. A systematic review of patient inflammatory bowel disease information resources on the worldwide web. *Official J Am College Gastroenterol|ACG.* 2007; 102(9):2070-2077.

16. Kocyigit BF, Nacitarhan V, Koca TT, Berk E. YouTube as a source of patient information for ankylosing spondylitis exercises. *Clin Rheumatol.* 2019;38:1747-1751.

17. Charnock D, Shepperd S, Needham G, Gann R. DISCERN: an instrument for judging the quality of written consumer health information on treatment choices. *J Epidemiol Community Health.* 1999;53(2):105-111.

18. Langford B, Hooten WM, D'Souza S, Moeschler S, D'Souza RS. YouTube as a source of medical information about spinal cord stimulation. *Neuromodulation.* 2021;24(1):156-161.

19. Cifu DX. *Braddom's Physical Medicine and Rehabilitation E-Book.* Elsevier Health Sciences; 2020.

20. Frontera WR, DeLisa JA, Gans BM, Robinson LR. *DeLisa's Physical Medicine and Rehabilitation: Principles and Practice.* Lippincott Williams & Wilkins; 2019.

21. Lee H, Chang MC. YouTube as a source of information regarding the effect of vitamin C on coronavirus disease. *Complement Ther Med.* 2022;67:102827.

22. Chang MC, Park D. *YouTube as a source of patient information regarding exercises and compensated maneuvers for dysphagia.* in *Healthcare.* MDPI. 2021.

23. Tekin SB, Bozgeyik B. Quality and content analysis of hallux valgus videos on YouTube®. *J Foot Ankle Surg.* 2023;62(1):85-90.

24. Rafiei H, Vanaki Z, Mohammadi E, Hosseinzadeh K. The role of family caregivers in pressure injury prevention guidelines: a scoping review. *Home Healthcare Now.* 2021;39(5): 253-260.

25. Ricci JA, Bayer LR, Orgill DP. Evidence-based medicine: the evaluation and treatment of pressure injuries. *Plast Reconstr Surg.* 2017;139(1):275e-286e.

26. Li Z, Marshall AP, Lin F, Ding Y, Chaboyer W. Registered nurses' approach to pressure injury prevention: a descriptive qualitative study. *J Adv Nurs.* 2022;78(8):2575-2585.

27. Tirgari B, Mirshekari L, Forouzi MA. Pressure injury prevention: knowledge and attitudes of Iranian intensive care nurses. *Adv Skin Wound Care.* 2018;31(4):1-8.

28. Ozsoy-Unubol T, Alanbay-Yagci E. YouTube as a source of information on fibromyalgia. *Int J Rheum Dis.* 2021;24(2): 197-202.

29. Yaradılmış YU, Evren AT, Okkaoğlu MC, Öztürk Ö, Haberal B, Özdemir M. Evaluation of quality and reliability of YouTube videos on spondylolisthesis. *Interdiscip Neurosurg.* 2020;22:100827.

30. Yildiz MB, Yildiz E, Balci S, Özçelik Köse A. Evaluation of the quality, reliability, and educational content of YouTube videos as an information source for soft contact lenses. *Eye Contact Lens.* 2021;47(11):617-621.

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.