

Are Most Videos Published on Youtube™ About Weight Loss and Low-Calorie Diet Made by Healthcare Professionals?

Haniel Fernandes* 

Estácio de Sá College, Nutrition Department, Fortaleza, Ceará, Brasil

Correspondence to: Fernandes H, Estácio de Sá College, Nutrition Department, Fortaleza, Ceará, Brasil.

Received date: February 18, 2024; **Accepted date:** March 20, 2024; **Published date:** March 27, 2024

Citation: Fernandes H. Are Most Videos Published on Youtube™ About Weight Loss and Low-Calorie Diet Made by Healthcare Professionals? *J Clin Biomed Invest.* 2024;4(1):pp. 1-3. doi: 10.52916/jcibi244029

Copyright: ©2024 Fernandes H. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

ABSTRACT

Background and Aims: Nowadays, people have become embracing the use of web-based technologies for communication and educational purposes. There are studies that prove the effectiveness that computer-, internet- or multimedia-based educational methods are more effective than traditional, paper-based sources. Therefore, evaluating if YouTube™ about weight loss or low-calorie diet video was shared by a healthcare professional could facilitate the identification of authentic information sources and real knowledge transfer. Thus, the study objective was to mathematically and objectively evaluate the number of videos shared on YouTube™ about weight loss and low-calorie diet produced by healthcare or non-health professionals.

Methods: Was conducted systematic search for videos that contain relevant information about weight loss and low-calorie diet on the YouTube™ video platform. The author used two terms for the search, it was "weight loss" and "low calorie diet". Thus, with this approach, the study purpose was to find videos with the weight loss and low-calorie diet themes about and to assess if were made by professionals or non-professional health care.

Results: 130 videos were then selected for the research. Of the total, 12 were not in English and 4 were newspaper, magazine, or news videos. Thus, 114 videos were elective for subsequent analyses, where 76 explained about weight loss self-reports, 12 it talked about weight loss training routines, 22 explained about weight loss low-calorie models' diet and 4 commented on medication weight loss. Still regarding the 114 total videos, 16 were produced by healthcare professionals (16%) and 98 by non-healthcare professionals.

Conclusion: In summary, 16% weight loss or low-calorie diet videos were shared by healthcare professionals e 75% weight loss or low-calorie diet total videos views were shared by non-healthcare professionals.

Keywords

Weight loss, Low-calorie, Healthcare, COVID-19.

Introduction

Nowadays, people have become embracing the use of web-based technologies for communication and educational purposes. Nonetheless, there are studies that prove the effectiveness that computer, internet or multimedia-based educational methods are more effective than traditional, paper-based sources [1]. Therefore, it is worth highlighting that the YouTube™ platform has more than 2 billion users, and more than 500 hours of video are uploaded every minute, is one of the world most popular social media and video-sharing platforms [2], which it still enables users to watch, upload, evaluate, and comment on the shared videos. Although the videos may have poor quality and are misleading or invalid [3], it has recently been demonstrated that the YouTube™ users base healthcare decisions on the information acquired from the watched videos [4]. Therefore, as to upload and share videos on YouTube™ is possible for everyone regardless of expertise, the validity of medical and health-related information available on YouTube™ cannot be guaranteed.

As the information found online being different in quality and factuality, the unreviewed information may mislead users and

facilitate the formation of misconceptions [5]. Therefore, evaluating if video was shared by a healthcare professional could facilitate the identification of authentic information sources and real knowledge transfer, because valid information from reliable sources could improve the satisfaction of the consultation for users [6]. Although there are already articles that aim to evaluate the quality of videos published on YouTube™ [7], the study objective was to mathematically and objectively evaluate the number of videos shared on YouTube™ about weight loss and low-calorie diet produced by healthcare or non-health professionals.

Methods

On 06 January, 2024 was conducted a systematic search for videos that contain relevant information about weight loss and low-calorie diet on the YouTube™ video platform. The author used two terms for the search, it was "weight loss" and "low calorie diet". Thus, with this approach, the study purpose was to find videos with the weight loss and low-calorie diet themes about and to assess if were made by professionals or non-professional healthcare. After using the search terms in question ("weight loss"; "low-calorie diet") to select videos for analysis, the author two applied filters available on the YouTube™ platform itself; videos less than 20 minutes long and videos posted 01/01/2023 to 11/31/2023, on the last year.

As the YouTube™ no longer generates page numbers in its searches, the author decided to evaluate the first 130 videos in the survey. The videos should be included on study if were about weight loss self-reports, weight loss training routines, weight loss diet models or videos about medication for weight loss. The videos not in English and newspaper, magazine, or news videos, would be excluded. These were the inclusion and exclusion criteria study. Ethics approval was not required for this study, as it concentrated on publicly available YouTube™ data, in accordance with relevant institutional and national guidelines and regulations.

The author analyzed the videos one by one. Within this analysis, the videos were included or excluded for the final analyzes based on the already established criteria and, in the end, evaluated if it was made by healthcare or non-healthcare professionals. The author did not use statistical analysis. A centesimal mathematics was applied to the percentage of videos produced by healthcare or non-healthcare professionals that also included the total views number to each video divided into the subjects mentioned above (weight loss self-reports, weight loss training routines, weight loss diet models and videos about medication for weight loss).

Results

130 videos were then selected for the research. Of the total, 12 were not in English and 4 were newspaper, magazine, or news videos. Thus, 114 videos were elective for subsequent analyses, where 76 explained about weight loss self-reports, 12 it talked about weight loss training routines, 22 explained about weight loss low-calorie models' diet and 4 commented on medication weight loss. Still regarding the 114 total videos, 16 were produced by healthcare professionals (16%) and 98 by non-healthcare professionals. A flowchart (Figure 1) was created to better demonstrate these findings.

The aggregate number of views of the 114 videos included for analysis was 54.247.654. Of the total views, the 16 videos made by healthcare professionals had 13,578,659 views compared to 40,668,995 views of the videos made by non-healthcare professionals. Something that corresponds to exactly 25% of total views. Obviously, videos made by non-healthcare professionals contained 75% of all views.

Of the 76 that explained about weight loss self-reports, 1 (1.3%) was produced by healthcare professionals and 75 by non-

Table 1. Survey data from the study on views, self-reports, training routines, low-calorie models' diet, and medication, between healthcare professionals and non-healthcare professionals.

	Videos	Views (million)	Self reports	Training routines	Low-calorie models' diet	Medication
Professionals	16 (14%)	~13 (25%)	1 (1.3%)	6 (50%)	6 (27%)	3 (75%)
Non-professionals	98	~54	75	6	16	1

Discussion

Keelan, et al. (2007) have published the first study evaluating YouTube™ videos' quality on the topic of immunization [8]. From this research, some studies have been published about the YouTube™ videos with health-related, and medical information content, and it has been concluded that their information content is misleading [9,10], which makes the path of this discussion hazy. What may seem clear is that the misleading videos about

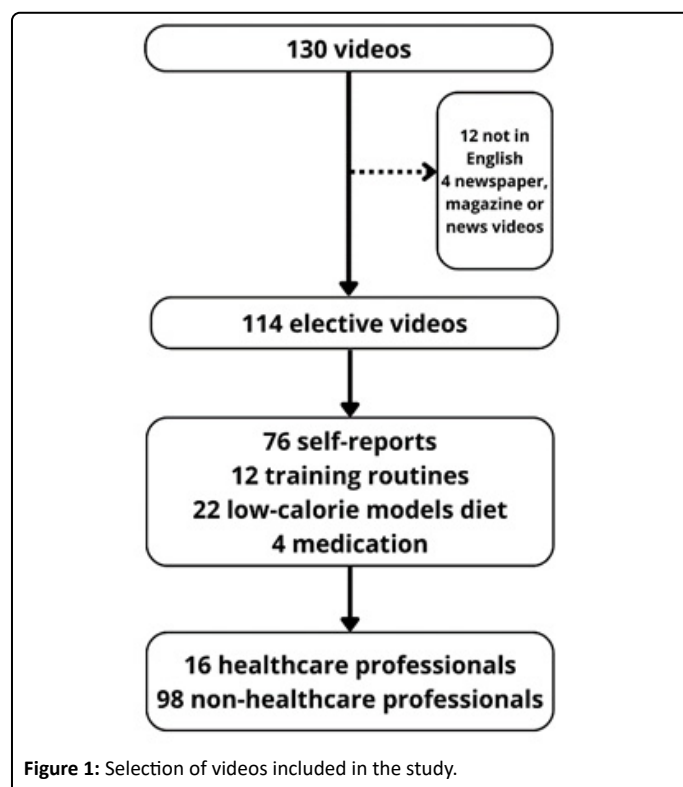


Figure 1: Selection of videos included in the study.

healthcare professionals. Of the 12 that explained about weight loss training routines, 6 (50%) was produced by healthcare professionals and 6 by non-healthcare professionals. Of the 22 that explained about weight loss low-calorie models' diet, 6 (27%) was produced by healthcare professionals and 16 by non-healthcare professionals. Of the 4 that explained about medication weight loss, 3 (75%) was produced by healthcare professionals and 1 by non-healthcare professionals. The table 1 presents a survey of the main data found by this study and the percentage differences between healthcare professionals and non-healthcare professionals.

Within the four themes covered by the author to subdivide the videos, the highest proportion of healthcare professionals working in the production of videos on YouTube™ was 75% in the medication weight loss theme. On the other hand, when the subject was about weight loss self-reports, was found the lowest proportion of healthcare professionals working in the production of videos on YouTube™, the rate was 1%.

weight loss are shared by non-healthcare professionals, which may contain scientifically shallow content with little, or none, practical applicability. Furthermore, videos made by non-healthcare professionals have no technical responsibility, just the focus on gaining views and engagement. Which can make them, for the most part, videos without scientific necessity.

Besides that, it was discovered that the videos that are low-rated by experts have higher view numbers and rank on YouTube™ [11].

Perhaps the impact of famous bloggers on the amount of engagement of their shares could influence these findings. As that there is a lot of information with low accuracy and reliability on the internet, consumers should be directed to reliable videos for seeking health information [12]. It could be interesting for healthcare professionals' pages to be preferred in search results. For example, videos shared by healthcare professionals, previously evaluated by YouTube™ management, would appear in the first 10-20 videos in the user's search results. This could represent a solution to positively direct the users to open the videos shared by healthcare professionals, included have a experts' reviews of videos uploaded by non-healthcare professional users. This because this approach has already been proven successful, during the SARS (Severe Acute Respiratory Syndrome) epidemic [13] and COVID-19 (Coronavirus Disease 2019) pandemic [4]. Besides preferring videos created by professionals, it would be optimal to introduce experts' reviews of videos uploaded by nonprofessional organizations.

In this study, only 16% of the videos found about weight loss were shared by healthcare professionals. Hence, of the more than 54 million views of the videos included in the study, only 13 million came videos shared by healthcare professionals, an audience of just 25% compared to total views. Therefore, it seems interesting to have some type of intervention on the part of YouTube™ in the filter applied to mouths for weight loss. This is so that the user has a professional audience based on the content they watch.

Conclusion

In summary, 16% weight loss or low-calorie diet videos were shared by healthcare professionals e 75% weight loss or low-calorie diet total videos views were shared by non-healthcare professionals. More studies on the quality of searches for weight loss and low-calorie diets are needed to better explain the impacts of this difference on society. The internet-based information sharing, and technologies provide widening opportunities to educate people about weight loss, where the YouTube™ may be an effective and underestimated educational tool.

References

1. Tam R, Beck KL, Manore MM, et al. Effectiveness of Education Interventions Designed to Improve Nutrition Knowledge in Athletes: A Systematic Review. *Sport Med.* 2019;49(11):1769–1786.

2. Osman W, Mohamed F, Elhassan M, et al. Is YouTube a reliable source of health-related information? A systematic review. *BMC Med Educ.* 2022;22(1):1–12.

3. Stellefson M, Chaney B, Ochipa K, et al. YouTube as a source of chronic obstructive pulmonary disease patient education: A social media content analysis. *Chron Respir Dis.* 2014;11(2):61–71.

4. Szmuda T, Syed MT, Singh A, et al. YouTube as a source of patient information for Coronavirus Disease (COVID-19): A content-quality and audience engagement analysis. *Rev Med Virol.* 2020;30(5):1–8.

5. Nason GJ, Baker JF, Byrne DP, et al. Scoliosis-specific information on the internet: has the “information highway” led to better information provision? *Spine (Phila Pa 1976).* 2012;37(21):E1364–E1369.

6. Hungerford DS. Internet access produces misinformed patients: managing the confusion. *Orthopedics.* 2009;32(9).

7. Kiss A, Soós S, Temesi Á, et al. Evaluation of the reliability and educational quality of YouTube™ videos on sport nutrition topics. *J Int Soc Sports Nutr.* 2023;20(1): 2278632.

8. Keelan J, Pavri-Garcia V, Tomlinson G, et al. YouTube as a source of information on immunization: a content analysis. *JAMA.* 2007;298(21):2482–2484

9. Erdem MN, Karaca S. Evaluating the Accuracy and Quality of the Information in Kyphosis Videos Shared on YouTube. *Spine (Phila Pa 1976).* 2018;43(22):E1334–E1339.

10. Mueller SM, Jungo P, Cajacob L, et al. The Absence of Evidence is Evidence of Non-Sense: Cross-Sectional Study on the Quality of Psoriasis-Related Videos on YouTube and Their Reception by Health Seekers. *J Med Internet Res.* 2019;21(1):e11935.

11. Langford A, Loeb S. Perceived Patient-Provider Communication Quality and Sociodemographic Factors Associated With Watching Health-Related Videos on YouTube: A Cross-Sectional Analysis. *J Med Internet Res.* 2019;21(5):e13512.

12. Capece M, Di Giovanni A, Cirigliano L, et al. YouTube as a source of information on penile prosthesis. *Andrologia.* 2022;54(1):1–6.

13. Morahan-Martin JM. How Internet Users Find, Evaluate, and Use Online Health Information: A Cross-Cultural Review. *CyberPsychology Behav.* 2004;7(5):497–510.