Characteristics Assessment of Online YouTube Videos on Radiotherapy for Breast Cancer

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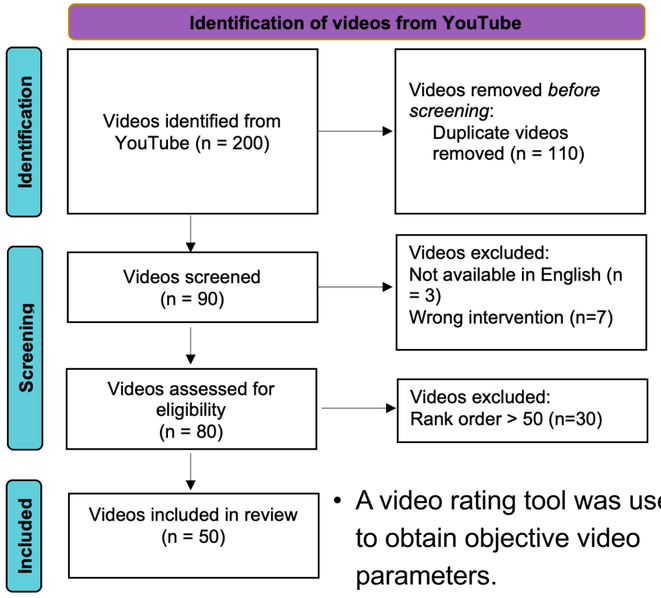
REFERENCES

INTRODUCTION

Excluding nonmelanoma skin cancer, breast cancer accounts for the highest proportion of newly diagnosed cancers in females[1]. Radiotherapy is an important part of breast cancer management but is underutilized due to barriers such as lack of proper education[2,3]. YouTube is commonly used for obtaining health information, yet quality of information has been a concern[4]. This study systematically evaluates the characteristics of educational YouTube videos on radiotherapy for breast cancer.

METHODS



- A video rating tool was used to obtain objective video parameters.
- Two researchers independently reviewed 10 videos. The remaining were reviewed by one researcher with issues resolved using a design-based research approach

IMPLICATIONS

Table 1 Healthcare provider guidelines for recommending YouTube videos for patient education

Video Recommendation	Explanation
Currency	
Recommend videos less than 3 years old and/or use the "Upload Date" filter in addition to the default "Relevance" filter	Recent videos may provide more "up-to-date" information that is consistent with the newest advancements in oncology[5].
Video Length	
Recommend videos less than 6 minutes	Viewer engagement is highest for videos less than 6 minutes. Engagement tends to decline beyond 6 minutes and especially after 9 minutes[6].
Media Type	
Advise patients to choose videos that use both audio and effective visual channels	Purposeful, relevant visual aids (images, animation, lecture slides, demonstrations, etc.) are more effective for learning medical content than passive visuals (interviews, vlogs, etc)[9].
Subtitles	
Recommend videos with subtitles	Subtitles support a larger variety of learning needs and provide an additional visual channel for users.
Commercial affiliations and Advertisements	
Advise patients to be aware of videos with commercial interests or advertisements	Commercial affiliations or videos with advertisements may provide biased or misleading information for financial gain[7]
Presenter Type	
Recommend videos that include a physician source of information	Physician sources may provide more credible, higher quality information than those without physician sources[8]

RESULTS

- Median Video Age: 3.4 years (ranging from 176 days to 11.9 years)
- Median Video Length: 5min 49s (ranging from 57s to 1h 21min 17s)

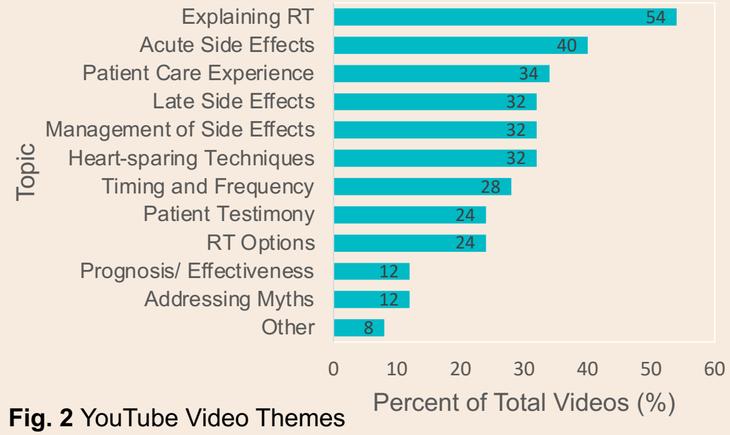


Fig. 2 YouTube Video Themes

Table 1 Video demographics

	Number of Videos (Percent of Total)
Publisher Affiliation	
Health Care Facility/ Organization	24 (48)
Non-Profits	15 (30)
Commercial	4 (8)
Presenter Type*	
Physician	34 (68)
Patient	16 (32)
Media Type*	
Physician Interview	34 (68)
Patient Interview	13 (26)
B-Roll Footage with Narration	24 (48)
Lecture-Style Presentation with Slides	5 (10)
Target Audience	
Patient	48 (96)
Healthcare Provider	2 (4)
Other	
Advertisements	3 (6)
Subtitles Available	48 (96)
Bias	1 (2)

*Categories are not mutually exclusive