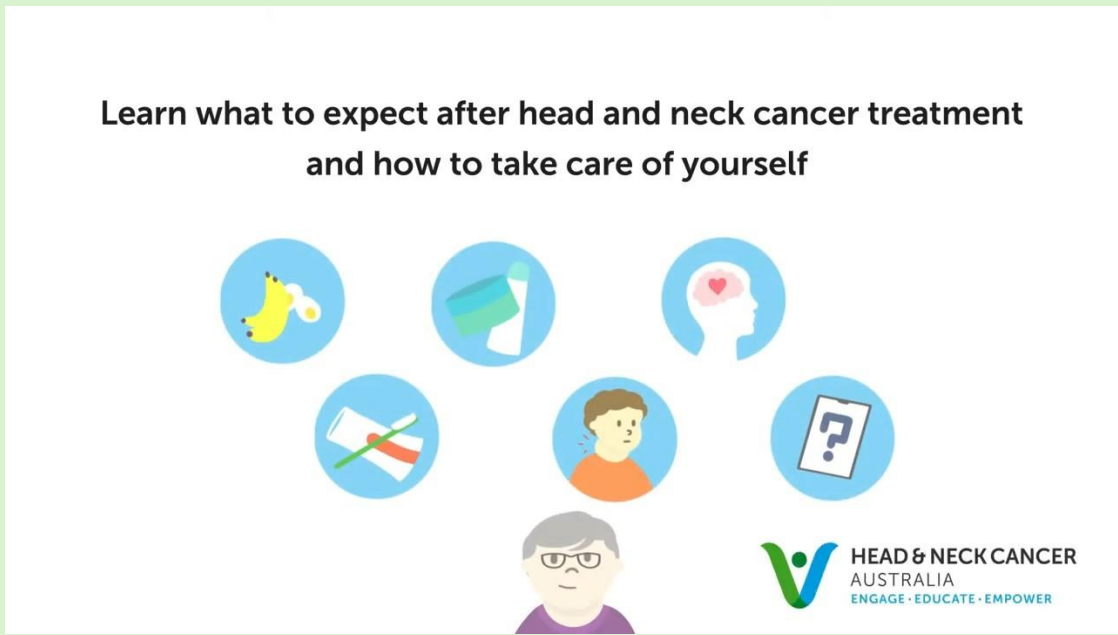


# Understandability, actionability and reliability of YouTube videos on brain, head, and neck cancer information

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## Introduction

- The incidence of brain cancer (BC) and head and neck cancer (HNC) continues to increase with higher numbers of annual deaths.
- Persons with cancer often use the internet for cancer-related information.
- Online videos accessed via YouTube are popular for health education.
- Videos must be critically evaluated for educational qualities as the information could influence health outcomes.

## Objective

- to evaluate the understandability, actionability and reliability of videos available on YouTube regarding brain, head, and neck cancer information.

## Methods

- A scoping review of YouTube videos was conducted.

### Inclusion criteria

- Less than 20 minutes
- Upload date within five years (2019-2023)
- Published in English

### Exclusion criteria

- Multiple parts or series
- Not focusing on patients
- Not relevant to BC or HNC
- No sound

### Data evaluation

- Patient Education Materials Assessment Tool for Audiovisual Materials (PEMAT-A/V).
- The modified DISCERN criteria.

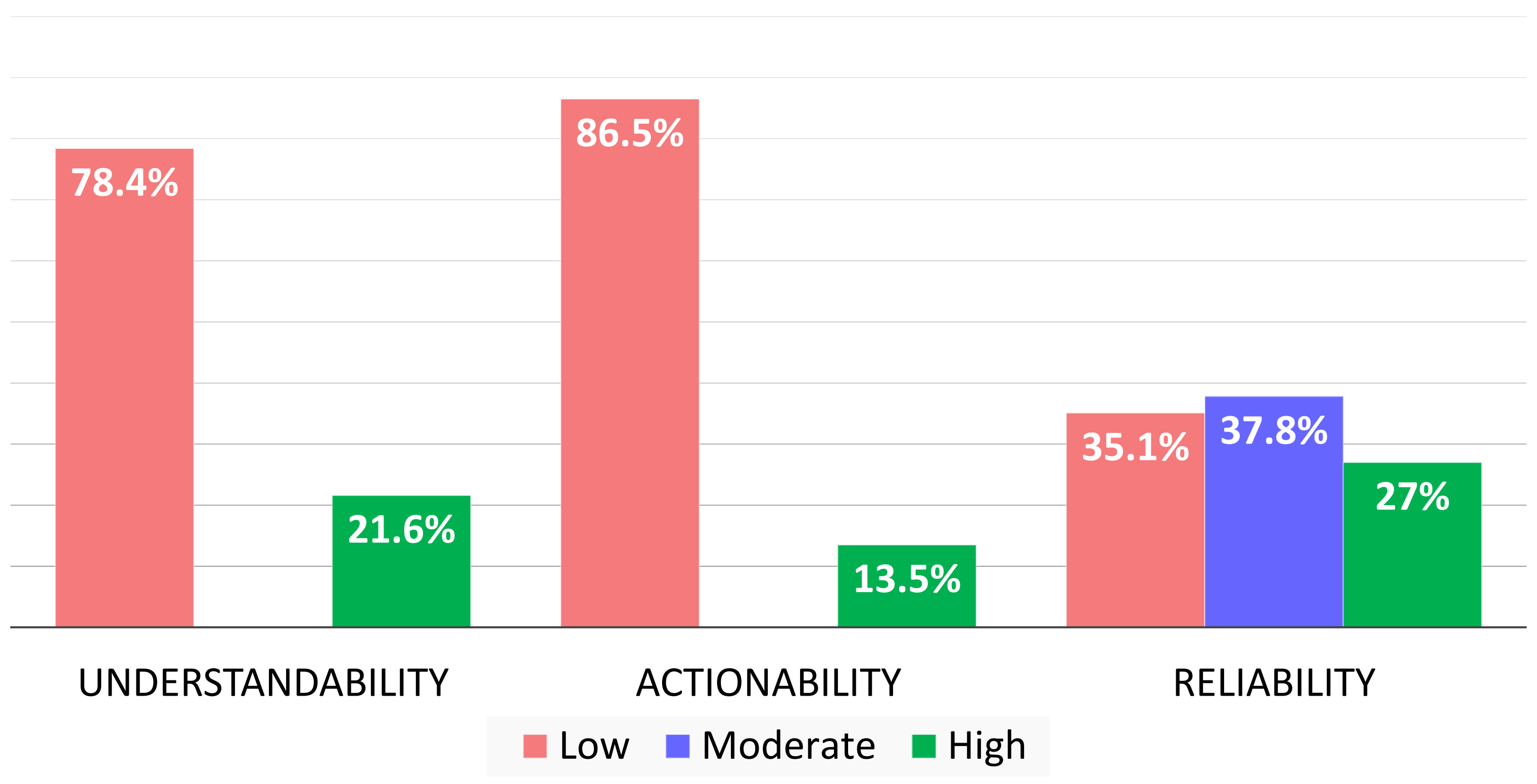
### Data analysis

- Spearman's rank correlation, Kruskal-Wallis, and Mann-Whitney U tests were used for analysis.

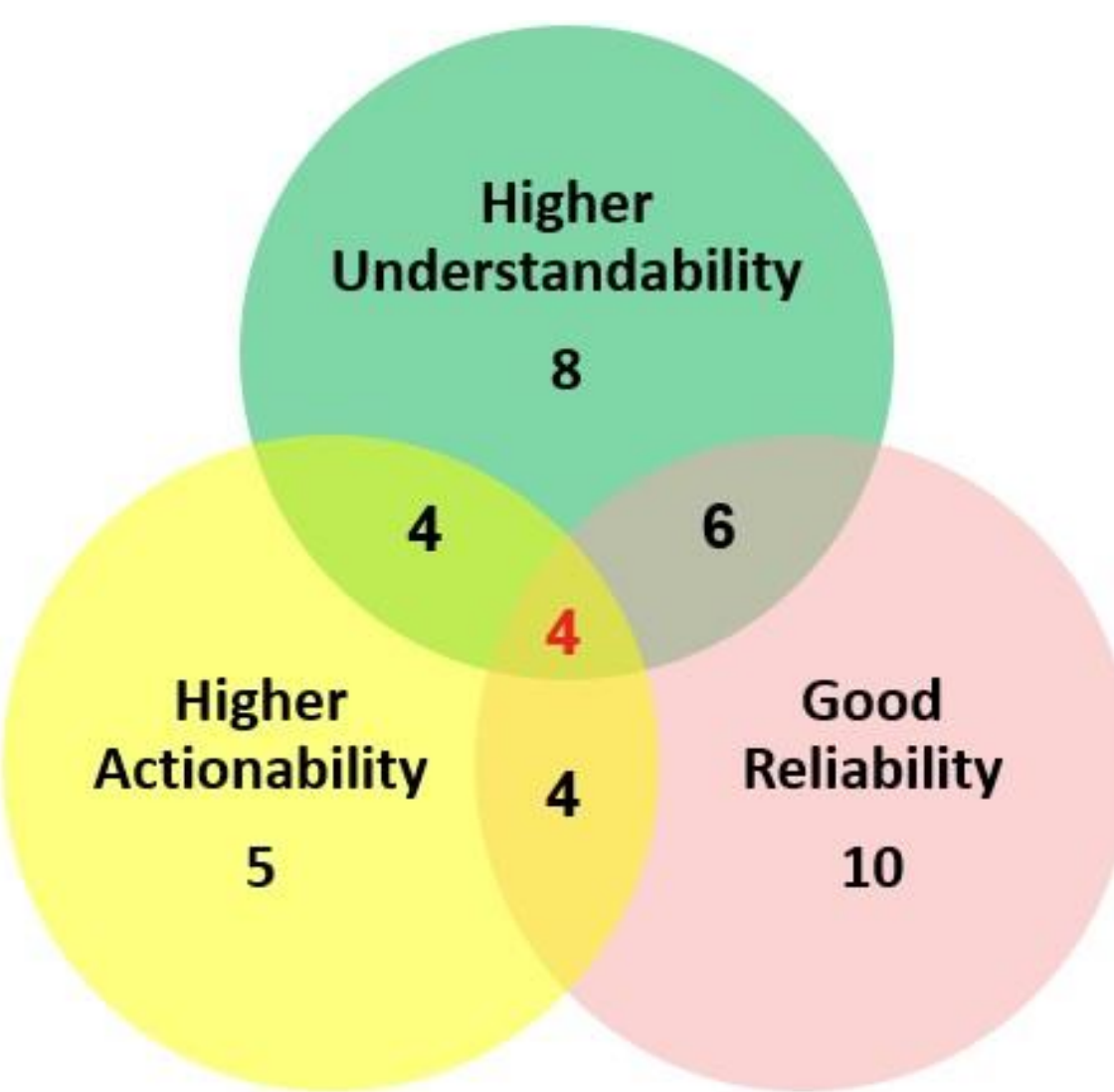
## Results

- Main country: USA 89%
- Channel type: health institution 43%, private 43%
- Mainly presented by health professionals 52%, consumers 22%
- Content: consumer experience 35%, treatment options 24%

Categories of Videos



Number of videos identified from quality assessment



- Higher understandability in animated and narrated videos
- Lower actionability, views and likes in private channels
- Higher understandability and actionability linked to higher views and likes

## Conclusion

- YouTube videos of BC and HNC have low understandability, low actionability and moderate reliability.
- Organisations must develop trustworthy and credible videos to share health information via YouTube.
- Including animations and professional video transcripts as closed captions may improve the overall quality and consumer engagement.