

Evaluation of educational content of YouTube videos focused on hand hygiene: the need for professional communication



Sir,

The recent rise of social media usage creates a platform for the dissemination of health information to large audiences. In North America alone, 74% of adults use the Internet daily, and 80% of all users search for health-related information [1]. YouTube is the most popular video sharing platform, with more than 1.9 billion monthly active users and 5 billion video views per day in 76 different languages, that allows both individuals and organizations to distribute, search for, watch, share and comment on user-generated video content. Given the popularity of YouTube, it is currently the leading audiovisual information centre of medically relevant videos [2].

Previous studies have examined messages communicated through YouTube on infectious diseases and infection control topics including human immunodeficiency virus, Ebola, yellow fever and *Clostridium difficile* infection [3–6]; however, limited research in the literature exists regarding the use of YouTube as a platform for hand hygiene education. Therefore, we conducted a descriptive study to characterize the available information about hand hygiene from the most widely viewed YouTube videos.

In February 2019, a search was conducted on the YouTube website (www.youtube.com) using the term 'hand hygiene'. Out of the approximately 985,000 results, the 150 most viewed videos were reviewed and analysed. Any duplicate videos and videos lacking audio were excluded. The videos were categorized as 'useful', 'misleading' or 'no information', and the sources were classified as non-professional sources, medical professionals or entities. All videos were reviewed independently by five researchers, and two viewers arbitrated any discrepancies.

The videos had been watched a total of 7,934,108 times and the number of views per video ranged between 5700 and 2,500,000. Thirty-eight (25.3%) videos had been uploaded by professional sources, including the World Health Organization, the Centers for Disease Control and Prevention, Eastern Ontario Health Unit and the New England Journal of Medicine. Ninety-five (63.3%) videos contained useful content, 29 (19.3%) were misleading and 26 (17.3%) provided no information. Compared with useful videos, misleading videos had a higher number of views. Misleading content was focused on incomplete or incorrect demonstrations of hand hygiene, and miscommunication of the indications for handwashing and hand antisepsis and the concept of the Five Moments for Hand Hygiene.

Although there was a higher percentage of educationally useful videos, approximately 20% of the sample did not reflect accurate information about hand hygiene. These results highlight that video content should be interpreted with caution, especially from videos uploaded by non-professional sources. Results demonstrate that hand-hygiene-related videos are viewed at a very high rate, with almost 1 million videos available. Therefore, given the high utilization of the Internet for health content, YouTube could serve as a valuable platform for

promoting accurate information regarding hand hygiene contained in social media, with more participation from credible sources, such as physicians, healthcare centres and organizations. Promoting educational videos on these platforms and using social networks would also encourage the worldwide campaign WHO SAVE LIVES: Clean Your Hands, and improve its global impact [7].

Conflict of interest statement

None declared.

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