

Original Article

IS SOCIAL MEDIA PROMOTING COVID-19 VACCINE UPTAKE? A CASE OF HAUSA LANGUAGE YOUTUBE VIDEOS

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Abstract

Background: The importance of social media in spreading health information, COVID-19 inclusive cannot be over emphasized and YouTube as one of the social media platforms is the most popular video-sharing platform widely. Studies in other languages showed that, videos on YouTube spread misinformation about COVID-19 vaccine.

Objective: To assess the nature of information in Hausa language YouTube videos on COVID-19 vaccine uptake.

Materials and Methods: This was a cross-sectional descriptive study of Hausa language YouTube videos on COVID-19 vaccine uptake. A filtered search was conducted on YouTube on 19th September, 2021 using the Hausa words for Coronavirus Vaccine as search terms. The words used were "Allurar Rigakafin Coronavirus" and "Rigakafin coronavirus". Fifty-five videos were included, YouTube video information were collected and video source and video metrics categorization were also collected. The videos were assessed to determine if they were pro-vaccination and for content, by extracting data based on information on COVID-19 vaccination contained in the videos using a predesigned proforma. Data analysis was done using Microsoft Excel 2016 and SPSS version 20.

Results: About 65% of the videos had views of 0-100 with no dislike and were uploaded in the last 6 months. Only about one-third (36.4%) of the videos were pro-vaccination. Factual information on COVID-19 vaccine and information on vaccine safety, efficacy, side effects and dangers of vaccine rejection were contained in 36.4% or less of the videos. Outright misinformation was contained in as much as 25.5% of the videos.

Conclusion: Most of the Hausa language YouTube videos on COVID-19 vaccine uptake were not pro-vaccination, they were not sufficiently informative on COVID-19 and some contained misinformation. Such videos with questionable content should be deleted from YouTube to forestall misleading the populace.

Keywords: YouTube, Vaccine, Misinformation, Vaccine hesitancy, COVID-19

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INTRODUCTION

YouTube is one of the popular social media outlets from which the public seek health-related information and in fact it's the leading video-sharing platform globally. It penetrated everywhere irrespective of race or continent.¹ To curb further spread of COVID-19, vaccine was developed within a short period of time. However, beyond its safety and efficacy, its universal acceptability is of great importance, especially in developing countries. Social media can influence or determine the universal acceptability of the vaccine.

Due to the collaboration between government, other agencies and YouTube on social media infodemic, YouTube embarked on deleting all uploaded videos with any form of misinformation from its platform.² This has taken effect since October, 2020. However, the definition of misinformation adopted by YouTube was criticized as it may not identify some form of misinformation.³ Consequently, a study by Chan et al¹ long after the policy was implemented still identified misinformation infodemic concerning videos in the platform. Though, the number of such videos has reduced drastically, compared

to before the implementation of the policy,^{4,5} it still calls for concern.

A previous study in English language on content of YouTube COVID-19 vaccine related videos showed that the videos are of poor quality and conveys misinformation and non-factual content about the vaccine.¹ Therefore, there is a need for a study to be conducted on YouTube videos that discuss COVID-19 vaccine uptake in Hausa, the second most spoken language in Africa, a region with COVID-19 vaccine hesitancy as high as 84%⁶ and hence the aim of this study.

MATERIALS AND METHODS

This was a cross-sectional descriptive study of Hausa language YouTube videos on COVID-19 vaccine uptake. A search was conducted on YouTube on 19th September, 2021 using the Hausa words for Coronavirus Vaccine as search terms. The words used were “Allurar Rigakafin Coronavirus” and “Rigakafin coronavirus”. Seventy-five videos were obtained out of which 20 were either duplicates or removed videos and were excluded leaving 55 videos. The search was filtered by terms including view count, only videos, uploaded any time and of any length. The YouTube information; number of views, duration on YouTube, number of likes, number of dislikes, video category was collected. In addition, video source and video metrics categorization were collected using Heathcote et al⁷ criteria. An assessment of the included videos was separately done by two of the authors (rater 1 and rater 2) to determine if the videos were pro-vaccination and for content, by extracting data based on information on COVID-19 vaccination contained in the videos using a predesigned proforma. Due to the

subjective nature of the determination whether or not the videos were pro-vaccination, the assessors’ divergent views on 11 videos was resolved by the third author. Data analysis was done using Microsoft Excel 2016 and SPSS version 20.

RESULT

Video metrics

Most of the videos; n = 36 (65.5%) had a view of 0-100, followed by 101-500 views; n = 12 (21.8%). Most had 2-5 likes; n = 17 (30.9%), 0 dislike; n = 47 (85.5%), had been on YouTube for 1-6 months and uploaded mainly by news broadcasters; n = 17 (30.9%), as shown in Table 1.

Proportion of videos that are pro-vaccination

Only one third (36.4%) of the videos were advocating for the uptake of COVID-19 vaccine to their viewers. See Figure 1.

Content analysis of the videos

As can be seen from Table 2, only about one-quarter of the videos contain information on the vaccine importance (rater 1; n = 14 (25.5%), rater 2; n = 16 (29.1%)). Factual information on COVID-19 vaccine was contained in only n = 15 (27.3%) by rater 1 and n = 20 (36.4%) by rater 2. Misinformation on COVID-19 vaccine was contained in n = 14 (25.5%) by rater 1 and n = 9 (16.4%) by rater 2. Only About one-fifth of the videos contained information on the vaccine safety (rater 1; n = 13 (23.6%), rater 2; n = 10 (18.2%)). Information on efficacy was contained in only n = 11 (20%) and n = 5 (9.1%), on side effects in only n = 7 (12.7%) and n = 7 (7.3%) and on dangers of rejection in only n = 12 (21.8%) and n = 7 (12.7%) by rater 1 and 2 respectively.

Table 1: Video metrics

Variables	N	%
Number of views		
0-100	36	65.5
101-500	12	21.8
501-1000	4	7.3
>1000		
Number of likes		
0	15	27.3
1	8	

2-5	17	30.9
6-50	11	20
51-1000	3	5.5
1001-5000	1	1.8
Number of dislikes		
0	47	85.5
1	5	9.0
6-50	3	5.5
Duration on YouTube		
1 week – 1 month	2	2
1 month – 6 months	27	49.1
More than 6 months	26	47.3
Video source		
Education Company	11	20
Professional or Academic	2	3.6
Medical Research Institution	1	1.8
News Broadcaster	17	30.9
Animation/Media Company	15	27.3
Individual	4	7.3
Unclear source	5	9.1

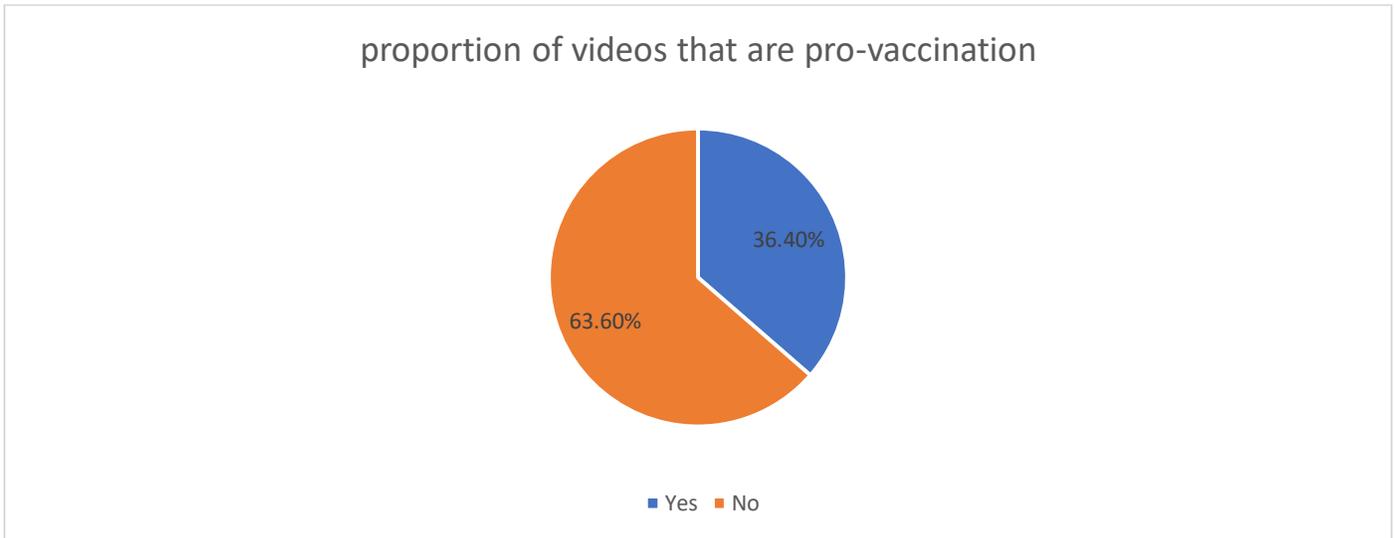


Figure 1: proportion of videos that are pro-vaccination

Table 2: video content analysis

Variables	rater 1		rater 2	
	No	Yes	No	Yes
Importance of the vaccine	41 (74.5%)	14 (25.5%)	39 (70.9%)	16 (29.1%)
Safety of the vaccine	42 (76.4%)	13 (23.6%)	45 (81.8%)	10 (18.2%)
Efficacy of the vaccine	44 (80%)	11 (20%)	50 (90.9%)	5 (9.1%)
Side effects of the vaccine	48 (87.3%)	7 (12.7%)	51 (92.7%)	7 (7.3%)
Dangers of vaccine rejection	43 (78.2%)	12 (21.8%)	48 (87.3%)	7 (12.7%)
Vaccine factual information	40 (72.7%)	15 (27.3%)	35 (63.6%)	20 (36.4%)
Vaccine misinformation	41 (74.5%)	14 (25.5%)	46 (83.6%)	9 (16.4%)

DISCUSSION

In contrast to video views in the range of millions attracted by the English language YouTube videos on COVID-19 studied by Chan et al,¹ this study showed that Hausa language YouTube videos on COVID-19 vaccine uptake attracted significantly fewer number of viewers. This is possibly because English language is a global language with more speakers (native and non-native). In addition, a number of Hausa speakers watching YouTube videos might be conversant with English language and hence may prefer watching videos made in English. Nevertheless, the fact that none of the reviewed videos had a single dislike by the viewers means that it can influence the attitude of the viewers.

Despite the fact that YouTube had passed a COVID-19 medical misinformation policy with effect from October 14, 2020, about a quarter of the videos studied conveyed misinformation on COVID-19 vaccine and majority of them were uploaded in the last six months, that is, one year after the policy. This supports the criticism by Wardle and Singerman,³ that the YouTube policy relied on health authorities' definition of what constitutes misinformation, and neglected local and cultural acts that also constitute misinformation. The proportion of videos with misinformation in this study is similar to that found in earlier studies before the policy was passed.^{4,5} However, it is in contrast with that in the study of English language YouTube videos on COVID-19 done after the policy by Chan et al.¹ English language videos with misinformation on COVID-19 were possibly prioritized for removal after the policy. Removal of "anti-

coronavirus videos" on YouTube including videos made in languages other than English is likely still ongoing, as was noticed during this study; one study was removed before it could be reviewed after being selected.

Chan et al¹ found that COVID-19 vaccine YouTube videos are of poor-quality and that viewers of the videos are consuming incomplete evidence on how COVID-19 vaccine will help in curbing further spread of the virus. Similarly, only few of the videos assessed in this study advocated for COVID-19 vaccine uptake and in the same vein, only few videos conveyed factual information on the vaccine. As some Hausa speakers have fear of vaccination, the information propagated through Hausa language YouTube videos on COVID-19 vaccine, may together with the already established negative attitude of most of the Hausa speakers towards COVID-19 virus⁸ lead to low uptake of the vaccine by the viewers of such videos and their relatives. Viewers may remain undecided on taking the vaccine or outrightly decline taking it after watching such videos. Unlike in the study by Chan et al¹ with about 49% videos conveying information on vaccine safety and side effects, only few videos conveyed such information in this study.

CONCLUSION

Most of the Hausa language YouTube videos on COVID-19 vaccine uptake did not advocate for uptake of the vaccine, they were not sufficiently informative on COVID-19 and some contained misinformation. YouTube should extend its definition of misinformation on COVID-19 so that such videos with questionable

content can be deleted from YouTube to avoid further spread of misleading information.

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Conflict of Interest

Authors of this study have none to declare.

Author Contributions

YouTube search was conducted by MDG. Assessment of the included videos was done by MJS, AIA and MDG. All authors made substantial contribution to the study and the manuscript.

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