COVID-19 related conspiracy thoughts: Public thought assessment through Facebook

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Short Report

Keywords: COVID-19, pandemic, conspiracy, Jordan, Facebook

Posted Date: February 10th, 2021

DOI: <https://doi.org/10.21203/rs.3.rs-222748/v1>

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Abstract

Following the public thoughts on the recent 2019 coronavirus (COVID-19) pandemic is an important measure to ensure compliance with preventive behaviors. Here, we analyzed public conspiracy thoughts related to COVID-19 pandemic on official Facebook governmental COVID-19 announcements. A total of 343 comments analyzed for posts at the beginning and at the peak of COVID-19 pandemic in Jordan. We found a significant increase in conspiracy related comments in later posts at the peak of pandemic compared with earlier ones. Despite its small sample size, our present analysis provides an important measure for public conspiracy related thoughts on the current COVID-19 pandemic in Jordan.

Full Text

Since the inception of the 2019 coronavirus (COVID-19) pandemic, several conspiracy theories raised that questioned even the existence of such pandemic [1]. Such belief predicts resistance to both preventive behaviors and future vaccination for the virus. In a survey-based study that assessed COVID-19 conspiracy related beliefs among US participants, they found an inverse relationship between threat and conspiracy theories [2]. While the US study used a survey based approach, we propose that public comments on social media on posts and announcement related to the COVID-19 pandemic might provide a more realistic reflection of the public thoughts. The analysis of public comments on social media announcement was previously used to assess the outreach efforts by health ministries to the COVID-19 pandemic [3].

In Jordan, the current COVID-19 pandemic started in March when the first few cases reported, and it peaked in October and November, when the number of cases surged to reach more than 3000 cases pe day. Here, we analyzed the public reaction to the daily COVID-19 cases briefing by Jordanian government official Facebook account at the beginning and at the peak of COVID-19 pandemic in Jordan. The Jordanian government announced the daily number of cases and deaths through its official Facebook social media account regularly at the end of each day. These briefing were regularly announced since April of the prime ministry official Facebook account [4]. For the current analysis, we chose two briefing during April and May, with the following criteria: less than 10 cases per, and more than 50 comments on the post. We also chose two briefings during October and November with the following criteria: more than 3000 cases per day, and more than 50 comments on the post. We manually extracted the comments on excel sheets, and we classified comments into conspiracy related, when they have specific keywords exists in the comment (e.g. it's a lie), or when the meaning relates to conspiracy (e.g. there is no pandemic), and not conspiracy related. We used SPSS 26.0 for our statistical analysis, where we used the chi-square test to analyze if there is a difference in the number of conspiracy related comments between posts.

A total of 343 comments analyzed for the four included posts, where table 1 details the distribution of these comments and the characteristics of their respective posts.

	April	May	October	November
Date	24-4-2020	30-5-2020	30-10-2020	28-11-2020
Number of comments	99	82	71	94
Number of cases	4	4	3921	3108
Number of deaths	0	0	32	56
Conspiracy related comments	2 (2.1%)	2 (2.4%)	8 (11.3%)	26 (27.7%)

Table 1: Details of the posts analyzed and the distribution of included comments.

We found a statically significant difference between the proportion of conspiracy related comments between posts detailing a high number of cases and posts derailing low number of cases ($p < 0.001$). The proportion of conspiracy related comments during April-May posts during low number of cases was 4 (2.2%), while the proportion in October-November posts during high number of cases was 34 (20.6%).

While our present analysis suffer a small sample size, it sheds a light on a new method of observing the public response to the COVID-19 pandemic and their conspiracy related thoughts. Fighting conspiracy theories is important in order to gain a proper public cooperation in the fight against the pandemic.

Declaration

Conflict of interest: None.

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