

## SHORT ARTICLE

# Information Sharing through Twitter by Public Health care Institution during COVID-19 Pandemic: A Case Study of AIIMS, Raipur

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## Abstract

**Background:** During the time of COVID 19, public health care institutions have used social media to inform and aware society. **Aim & Objective:** To analyze how Public Health Care Institutes conveyed the health information and messages through social media platform- Twitter during COVID 19, and analyzing its impact through sentiment analysis of comments. **Material & Methods:** The Thematic and sentiment analysis method has been used to analyze the data of the Twitter handle of AIIMS, Raipur in two phases; January-March 2020, and April-June 2020. **Results:** The analysis shows that the sharing of COVID-19 updates on AIIMS, Raipur Twitter handle increased the followers 15 times from 2,000+ in March 2020 to 30,000+ in June 2020, and the sentiment analysis reflects that COVID related updates received 96.7 % positive comments. **Conclusion:** The case study finds that transparent and informative message sharing through social media by public health care institutions can create an effective channel of communication. This results in a positive institutional image.

## Keywords

AIIMS; COVID-19; Pandemic; Public Health Institution; Twitter; Thematic analysis

## Introduction

The healthcare sector is witnessing significant changes where the focus of the government has been shifted from much costly high-tech technology for healthcare to non-traditional healthcare facilities by employing social networks. Being a Public Health Care Institution, it is the responsibility of the All India Institute of Medical Sciences, Raipur to provide state of the art health services during the COVID-19

pandemic and to create awareness about the pandemic through information dissemination. AIIMS, Raipur explored Twitter and Facebook to provide real-time information to the general public and to create awareness about health and hygiene practices to avoid further transmission of the virus. Since social media sites allow sharing information, applications of social media to the medical fraternity have recently garnered a great deal of attention. (1)

There is a continuous demand to improve the alienating and inaccessible healthcare language for communication between physician and patient. (2) Presently, Twitter is one of the popular social media sites used for disseminating health-related information to the public. (3) The COVID-19 pandemic is also termed an infodemic. Vast amounts of true and false information were circulating in society, especially through social media. (4) Public health campaigns by government institutions during a pandemic can consider encouraging social web activities to promote authentic and informative messages. (5)

The present study aims to study the types of healthcare literacy information shared by AIIMS, Raipur through Twitter messages and also analyze the reasons for increasing the followers on AIIMS, Raipur Twitter handle through sentiment analysis of comments.

**Structure of the Study:** The present case study is based on thematic and sentiment analysis. It provides rich insights into the qualitative data and detailed results through data coding. Six months' study period has been divided into two parts-From 01st Jan 2020 to 31st March 2020 (this was the period when there were fewer cases of COVID-19 in Chhattisgarh, and most of the Tweets were based on normal activities of the AIIMS, Raipur). The second study period was from 1st April 2020 to 30th June 2020 (the period when COVID-19 cases were steadily increasing). All collected 166 Tweets thematic analyzed and coded. Three overarching thematic headings emerged. These include-

**COVID related Updates-**Updates such as new positive cases found in the Virology Research and Diagnostic Lab at AIIMS, information of new admissions in COVID-19 ward and discharge, Mortality Information, Motivational stories, or success stories of patients recovering from COVID-19.

**COVID awareness Tweets-**This includes photos and awareness material on COVID-19 using infographics to communicate the message to common people.

**Other informative Tweets-**It includes information on other activities of the AIIMS Raipur such as seminars, academic programs, and other useful information for patients and their relatives.

Then twitter analytics of the AIIMS, Raipur Twitter Handle has been obtained and thematically analyzed to observe the changes during COVID-19 related informative Tweets and an increase in followers,

likes, and engagement on the Twitter handle of AIIMS, Raipur along with the sentiments of the followers. It has been compared with similar changes in Twitter Analytics during the normal working of AIIMS, Raipur between Jan-April 2020.

To know about the views or beliefs of followers, sentiment analysis of all comments-total 2317 (retrieved on 01st July 2020) made between study period were analyzed with the help of Python.

Scraped data collections (by searching keywords) through Twitter can be helpful with specific software to determine emotional manifestations that occurred on a specific topic during a given time interval. (6)

Keywords such as Incredible, We have proud of you, Thanks, We will defeat COVID-19 were kept in positive category, keywords such as Where (exact location of the patient), give more details were kept in neutral and words such as wrong data, contradictory information, doubtful were kept in the negative category.

### Aims & Objectives

1. To analyze how Public Health Care Institute conveyed the health information and messages through social media Platform-Twitter during COVID 19
2. To examine impact of messages through sentiment analysis of comments
3. To find out effect of transparent communication on creating effective channel of communication through social media

### Material & Methods

**Study Type:** The case study is based on thematic and sentiment analysis. It is an important research method for identifying, analyzing, and reporting different patterns known as themes within available data. The first phase is data familiarization, the second phase is generating initial codes from the Twitter data, the third phase consisted of searching for appropriate common themes in the data, and the fourth phase involved the themes review. The fifth stage is defining and naming themes, and at last phase six involved report writing based on the results.

**Study Area:** Chhattisgarh as most of the Tweets were based on normal activities of the AIIMS, Raipur.

**Study Duration:** Six months' time period had been divided into two parts-From 01st Jan 2020 to 31st March 2020-as this was the period when there were fewer cases of COVID-19 in Chhattisgarh and most of

the Tweets were based on normal activities of the AIIMS, Raipur. The second study period was from 1st April 2020 to 30th June 2020 as this was the period when COVID-19 cases were steadily increasing.

**Sample Size calculation:** All collected 166 Tweets thematic analyzed and coded. Total 2131 comments on these Tweets were made during the study period and selected for sentiment analysis.

## Results

(Table 1) shows different categories of updates during the study period January-June, 2020. Out of 166 Tweets by AIIMS, Raipur, there were 125 Tweets related to COVID-19. Another 41 Tweets were based on continue medical education programs, recruitment/admission advertisements, and different program celebrations on the campus.

(Table 2) shows five metrics that are useful to understand the overall performance of the AIIMS, Raipur Twitter handle. The Twitter analytics show that there is a significant increase in COVID pandemic information Tweets and the number of followers. During the period April-June 2020 out of 138 Tweets by AIIMS, Raipur there were 120 Tweets on COVID-19 related information. Tweet pattern shows that in April 2020 a total of 4,039 new followers started following AIIMS, Raipur Twitter handle. In May, New followers were increased by four times than the previous month to 16,900. Later in June 2020 AIIMS Twitter handle was followed by 6,567 new followers.

The sentiments analysis of comments on the above Tweets shows that a total of 2131 comments were made on COVID-19 related updates. The 96.7% of total comments were encouraging for COVID warriors thus falls under positive. The 2.5% of comments asked more about the pandemic and the exact location of the patient (Neutral). However, 0.8 % of the followers questioning the authenticity of the data or information provided through their comments (Negative).

The COVID-19 awareness Tweets received 119 comments. The 89.2% were positive, and 10.8% Neutral. No Negative comment was received in this category.

In the category of other informative Tweets, AIIMS Raipur received 67 comments with 99.7% were neutral and 0.3% were negative.

## Discussion

Social media networks have a significant impact on the way governments and public health care

institutions are working together and to optimize their performance. Both central and state governments need to be more interactive while using social media. Social media sites give a good strategic opportunity for public institutions.(7)

The AIIMS, Raipur transparently shared information on COVID-19 with the media, and the public through Twitter handle. The Institute added 28,000 more followers on Twitter by updating relevant first-hand information on COVID-19 thus enabling people in the Chhattisgarh state to communicate directly with the public healthcare institution.

When the AIIMS, Raipur engaged its follower during April-June 2020 with 139 new Tweets, it added 27,506 new followers during this period. Hence, it suggests that more engagement by public health care institutions on Twitter increased the followers significantly.

## Conclusion

This case study finds that messages on health awareness and transparent communication by public healthcare institutions can create an effective channel of communication through social media. During pandemic conditions in the country, social media can be used to create health-related awareness. It welcomed by the followers as indicated by the 28,000+ followers added by the AIIMS in the study period, and 96.7 % positive comments by the followers. Social media has become an important part of society. It influences decisions in people's lives. Therefore, it is important to research its influence on society, and health during the pandemic (8). The Initiative taken by the AIIMS Raipur was appreciated by the followers with positive words. The 2.5% comments were on specific information of the patient such as their location in followers' district. This information can be useful for the follower to prepare themselves to adopt pandemic-related precautions in their specific area. In the comment section, the followers shared social distancing information, helped each other during isolation, the importance of masks, and appreciated key health workers.

## Recommendation

The result suggests that public health institutions in India need to adopt strategic approaches to manage a positive institutional image. It should exercise an optimal level of exposure on social networks

including Twitter and Facebook. This initiative can provide transparency and a positive institutional image of government organizations.

**Limitation of the study**

The present study is limited by the social media platform selected.

**Relevance of the study**

The case study findings provide important implications for researchers in understanding the efficient and optimal use of Twitter in Indian public health care institutions. From a theoretical perspective, this foundational case study contributes to advancing a new domain of knowledge by using social media in health communication. The case study connects Twitter to health literacy promotion in India. For health communication professionals, this case study focuses on how to use Twitter as an effective communication tool with other stakeholders democratically and transparently. Short and simple messages through Twitter can deliver important health-related information to the public during the pandemic condition and thus increase health awareness in the country.

**Authors Contribution**

All the authors have contributed at various stages of composition of the final manuscript.

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**References**

1. Boyatzis R. Transforming qualitative information. Thousand Oaks: Sage; 2009.
2. Brady RRW, Chapman SJ, Atallah S, Chand M, Mayol J, Lacy AM, Wexner SD. #colorectalsurgery. Br J Surg. 2017;104(11):1470-1476. doi: 10.1002/bjs.10615. Epub 2017 Sep 7. PMID: 28881004. [PubMed]
3. Using thematic analysis in psychology [Internet]. Taylor & Francis. 2021. Available from: <https://doi.org/10.1191/1478088706qp063oa> [accessed on 02 Feb 2021]
4. Glasdam S, Stjernswärd S. Information about the COVID-19 pandemic – A thematic analysis of different ways of perceiving true and untrue information. Social Sciences & Humanities Open. 2020;2(1):100090.
5. Thelwall M, Thelwall S. A thematic analysis of highly retweeted early COVID-19 tweets: consensus, information, dissent and lockdown life. Aslib Journal of Information Management. 2020;72(6):945-962.
6. Nemes L, Kiss A. Social media sentiment analysis based on COVID-19. Journal of Information and Telecommunication. 2020:1-15.
7. James, M. The power of pictures in marketing. LIMRA’s MarketFacts Quarterly. 2012: 19.
8. Afolabi S, Folorunso S, Bunyula Z, Banjo O, Matshika S, Warrie W et al. Social Listening: A Thematic Analysis of COVID-19 Discussion on Social Media. 2020.

**Tables**

**TABLE 1 TWEET DURING JAN-MARCH, 2020 IN DIFFERENT CATEGORIES**

Category	Tweets during Jan-March 2020	Tweets during March-April 2020
COVID-19 Update	0	113
COVID-19 Awareness	5	7
Others	23	18
Total	28	138

**TABLE 2 TWEETS AND DIFFERENT METRICS**

Twitter Activity Month	Total Tweets	Tweet Impressions	Mentions	Profile Visits	New Followers
Jan, 2020	8	2,354	52	288	50
Feb, 2020	7	2734	32	217	23
Mar,2020	14	6,036	186	1,712	179
April, 2020	40	271,000	2,229	58,100	4,039
May, 2020	57	2,310,000	3,670	445,000	16,900
June, 2020	42	167,0000	1,898	250,000	6,567