Monkey pox disease: An Instagram analysis in disseminating accurate information.

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Abstract

In 2022, Monkey pox disease was declared as a Global Health Emergency. With the emergence of an epidemic such as this, it becomes imperative that accurate information is imparted to all the individuals. However, as seen in the case of Covid-19 pandemic, it is evident that people consume most of the information through social media platforms such as Instagram, Facebook, Twitter and others. With this, there is a possibility of an increase in dissemination of misinformation which was very well noted in case of Covid-19 Pandemic. Aims: To analyse the information that is available on Instagram regarding Monkey Pox disease and to determine its accuracy. Methodology: A cross-sectional, observational type of study where total of 522 posts were analysed over a period of two days was done. Top 90 posts from the top six monkey pox related hashtags were analysed on the basis of a proforma made of pre-selected questions via the platform google docs and accordingly the results were calculated. Results showed that, most of the posts are descriptive in nature, and only a few(11.65%) were posted by doctors. Most of them were posted by news or other agencies. Some of the posts were from unverified sources as well(27.65%). Discussion: As witnessed in Covid 19, there is prevalent misinformation when a global health emergency is concerned, attributed to vast access to social media platforms. In order to combat this dissemination of false information, such platforms should be regulated and should operate under guidelines of WHO.

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Abstract:

Introduction: In 2022, Monkey pox disease has been declared as a Global Health Emergency. With the emergence of an epidemic such as this, it becomes imperative that accurate information is imparted to all the individuals. However, as seen in the case of Covid-19 pandemic, it has become evident that people consume most of the information through the giant social media platforms such as Instagram, Facebook, Twitter and others. With this, there is a possibility of an increase in dissemination of misinformation which was very well noted in case of Covid-19 Pandemic.

Aims: To analyse the information that is available on Instagram regarding Monkey Pox disease and to determine the accuracy of this information.

Methodology: A cross-sectional, observational type of study where total of 522 posts were analysed over a period of two days was done. Top 90 posts from the top six monkey pox related hashtags were analysed

on the basis of a proforma made of pre-selected questions via the platform google docs and accordingly the results were calculated.

Results: Results showed that, most of the posts are descriptive in nature, and only a few(11.65%) were posted by doctors. Most of them were posted by news or other agencies. Some of the posts were from unverified sources as well(27.65%).

Discussion: On initial assessment only 369 posts were found to be relevant. As witnessed in Covid 19, there is a epidemic of misinformation when a global health emergency is concerned attributed to vast access to social media platforms. In order to sustain this dissemination of false information, such platforms should be regulated and should operate under guidelines of WHO as far as health related information is concerned.

Key-words: Monkey pox disease, Instagram, health concerns Introduction:

Human Monkey pox is a zoonosis, declared in the post-eradication era of small pox as the most significant Orthopoxvirus (1980s) [1]. Monkeypox is an enveloped brick shaped virus. It replicates in the cytoplasm rather than the nucleus. [2]. This virus spreads via secretions, contact with lesion exudate or crust material, and viral shedding through feces.

Although other nations in Central and West Africa have also recorded cases of monkeypox in people, the first human MPX case was reported in 1970 in the Democratic Republic of the Congo (DRC), where the disease is endemic [1]. The USA and Sudan both reported outbreaks of this disease in the early 2000s with a recent outbreak in the USA due to imported wild rodents from Africa [3]. Case fatality rates in Democratic Republic of Congo were around 10% among non-vaccinated individuals as compared to the smallpox vaccinated population [3]. In 2022, an outbreak was witnessed in the UK, originating from a British resident who went to Nigeria [4]. Many more cases were reported around the world from 13 countries that were previously not known to be endemic to Monkeypox virus [4].

Internet was a crucial medium for gathering and spreading knowledge and information about the current epidemic during the COVID19 Pandemic [5]. Multiple platforms like Facebook, twitter, Instagram allow sharing of thoughts, views and opinions of the mass via posts and videos. However, errors in interpretation, misleading information, fake news and such fallacies often circulate on social media which profoundly affect public health communication. With the proclamation of monkeypox as a public health emergency, we seek to analyze the information on monkeypox available on Instagram using various hashtags to assess its veracity using WHO recommendations as a reference.

Subjects and Methods:

A cross-sectional type of observational study was carried in June 2022, over a period of 2

days. Top 90 posts from the top six monkey pox related hashtags, namely #monkeypox,

#monkeypoxvirus, #monkeypoxoutbreak, #monkeypoxalypse, #monkeypoxawareness, and

#monkeypoxalert, were included in the study. A proforma was made using google forms and

the posts were screened on the basis of various pre-selected questions by the authors. All data

was amassed on a single excel file for further analysis. The posts that did not contain any

relevant information regarding monkeypox were excluded from the study. The remaining

data was analyzed using the function tool on the basis of numerous aspects like the type of

the post, whether it is an image or a video, number of likes, number of comments, source of

the posts, whether the post contains information about the description of the virus, prevention

of the disease, information about the treatment, information about mortality and if the data

presented on the post is in accordance with the information available on the WHO site.

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Results:

A total of 522 posts were analysed for this study. Those that were irrelevant to our topic including promotional posts by celebrities or agencies and posts in languages other than English and Hindi were excluded. Hence, we were left with 369 for our analysis. A total of six hashtags were used for this study. On analysis #monkeypox had the maximum number of posts linked to it, as shown in Table 1, followed by #monkeypoxvirus. Table 2 shows the characteristics of posts analysed, such as type of post, duration since it has been posted, number of likes and comments it received and what kind of Instagram page posted it. Only 45 (11.65%) were posted or shared by doctors. The majority were shared by news agencies 121 (32.79%) and health and wellness industries 84 (22.76%). Table 3 shows that most of the content 269 (72.90%) was descriptive in nature. Figure 1 depicts the prevalence of genuine information related to monkeypox disease as per World Health Organisation guidelines is considerably high. It was noted that only some posts contained information about the treatment of monkeypox 57 (15.45%) and the mortality of the disease 126 (34.15%). Misinformation or bogus information was spread by 33 (8.94%). Around 102 (27.64%) posts contained unverifiable information. There were certain posts of funny or humorous nature 39 (10.57%).

Discussion:

We analysed approximately 522 Instagram posts related to Monkeypox. On initial assessment only 369 posts were found to be relevant. Most of the posts were picture based rather than videos with majority of them being posted in the last six months. A minority of the posts were from healthcare personnel, with the rest being from news agencies or other sources. Most of the posts contained description about the monkeypox, while some of them had information about prevalence or prevention measures. Only a few posts spoke about treatment or the mortality of this disease. Almost sixty percent of the posts had information that was accurate.

Due to its vast accessibility, the internet has become the quickest and easiest way to convey knowledge in the current era making it crucial to take great care to prevent the spread of false information. Since May 6, 2022, monkeypox epidemic has been confirmed in the United Kingdom, and as of May 21, 2022, cases were confirmed globally in countries where monkeypox is not endemic [4]. As witnessed in COVID-19 pandemic, the dangers of spreading incorrect information while managing disease outbreaks might hasten the epidemic by influencing and splintering social responses. [6]. The information spread by the media can alter people's behaviours with respect to public health interventions. Understanding how people felt about the pandemic through social media research on COVID-19 was helpful in determining how to manage similar situations in the future. [7].

To control and prevent epidemics, monitoring social network platforms such as Twitter, Instagram regarding information on the spread of infectious agent is crucial [8] as forty-two percent of Americans search for health-related information on such platforms and most of them have reported that this has a significant influence on their behaviour in seeking care [9]. A similar study on dermatological hashtags on Instagram showed that board certified dermatologists produce only a small proportion of the top dermatology related posts on Instagram with the vast majority of them being from individuals without formal dermatology training [9]. This is similar to the findings in our study where only a few posts are made by healthcare professionals, which may be the cause of the spreading misinformation, as was also obvious from our data.

Another study done on assessment of media reportage on Monkey pox in the Nigeria demonstrated that the media campaigns were unsuccessful in raising awareness levels in the general population and it was discovered that inappropriate information, inadequate media programmes, and a lack of funding ultimately contributed to its inefficiency [10].

Spreading false information has frequently resulted in the failure to stop the spread of infectious diseases throughout the history of social media since the target population took fewer precautionary steps. This was particularly well documented during the Ebola outbreak of West Africa from 2003 to 2006 [11]. Low trust in institutions and more belief in misinformation, following ineffective advice and ignoring official healthcare recommendations often lead to pursuing self-care without the advice of healthcare professionals and delay
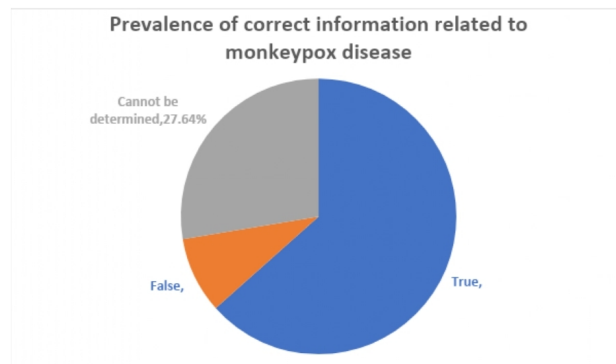
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in seeking medical help.

As is evident from the past situations concerning the COVID-19, Ebola virus as well as the ever-growing of dermatology related posts, web-based analysis of social media platforms immensely helps in not only predicting but also helps in better management of the outbreaks. In situations where the prevention strategies are aimed at modifying public behavior, social media can be a powerful tool to help manage the disease spread. The growing number of misinformation can be countered by encouraging healthcare professionals and other health and wellness agencies to create content with accurate and reliable information. Web-based analysis aids in our ability to understand public sentiments and determine which aspects of the general populace's behavior should be targeted in order to manage such outbreaks.

It has also helped researchers to investigate human related events accurately and revolutionize infodemiology [8]. The various statistics on social media like comments, likes, photos and videos allow for predicting monkey pox morbidity in affected areas and can nudge health care policymakers to implement preventive practices to the areas of highest susceptibility. This highlights the importance of our study given that monkeypox is now a topic of global concern.

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Prevalence of correct information related to monkeypox disease

Cannot be determined,27.64%

False,

True,

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`Tables.docx` available at https://authorea.com/users/511656/articles/588421-monkey-pox-disease-an-instagram-analysis-in-disseminating-accurate-information