

Othering discourse online in the UK during a time of crisis: A case study of opinion expressed on Twitter during the COVID-19 pandemic

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Abstract

During major public crises, racially motivated blame is common when ethnic minorities are portrayed by the mainstream media as ‘others’ to whom blame is ascribed. In response to crises, social media platforms such as Twitter (currently X) are often used by the public to discuss social issues and share opinions. Taking COVID-19 as an example of a major public crisis, recent studies on blaming discourse on social media have examined public opinions on Twitter, with the majority of the literature focused on the US context. There is little research on blaming minorities on social media during the pandemic in the UK, a country with a relatively high level of ethnic and religious diversity. This case study collected and analysed UK-based tweets which contained keywords from the pandemic in order to determine whether there was othering discourse toward minorities and if so, what opinions and sentiments about minorities were expressed? The results reveal the existence of both positive narratives towards ethnic and racial communities and blaming discourses on

Twitter, with the supporting narratives outweighing the negative discourses. Though the overall sentiment is negative when Twitter users referred to minorities, the themes identified from topic modelling and thematic analysis are mostly sympathetic and supportive towards ethnic and religious minorities in the UK. Our findings illustrate the complexity and non-linearity of discourses on ethnic and racial minorities one can find online and on social media in particular, and have implications for understanding the blaming of minorities on social media during crises more generally.

Keywords

Othering, public opinion, blaming of minorities, Twitter analysis, sentiment analysis

Introduction

During a major public crisis, it is common for the public to blame ‘outsiders’ or ‘others’ who are often ethnic and religious minorities (Nguyen et al., 2021). In response to crises, social media platforms such as Twitter and TikTok have provided the mediums for the public to share information, opinions and experiences (Li et al., 2021; Singh et al., 2020). Recent studies on blaming discourse on social media during a public crisis have examined public opinions expressed on social media during the COVID-19 pandemic, with the majority of the literature focused on the US context (e.g., Croucher et al., 2020; Kim et al., 2022; Lu & Liu, 2023). There is limited research on social media discourse among the UK public during this period, where a range of groups (e.g., ethnic and racial minorities, Muslims and young people) appear to have been targeted for blame in the British press (Aujla-Sidhu & Briscoe-Palmer, 2024; Matthews & Heesambee, 2024; Poole & Williamson, 2023). This study fills this gap by collecting and analysing UK-based social media data to understand public

opinions about ethnic minorities during the pandemic as expressed online. Since the pandemic, a growing body of research has used computational quantitative methods to examine large cohorts of public responses to COVID-19 on Twitter (Boon-Itt & Skunkan, 2020; Charquero-Ballester et al., 2021; Zhang et al., 2024). Twitter is also the most studied social media platform for hate speech detection (Rawat et al., 2024), yet systematic quantitative analysis of UK-based tweets on othering was lacking. In this study, we utilised an innovative approach to identify location-specific tweets to provide insights on UK users' responses to the pandemic. Posts on Twitter were selected for analysis, as Twitter was, at the time of the COVID-19 crisis, the most prominent social media platform used for public exchanges of views and perspectives and one that, at the time of data collection for this study, granted access to its archive of tweets¹. We collected tweets from two different weeks during the height of the pandemic. The first one-week period was a seven-day period after 31 July 2020 when Conservative Party MP Craig Whittaker alleged in a radio interview that the Black, Asian and Minority Ethnic (BAME²) communities were not taking COVID-19 seriously, in effect blaming them for the spread of the virus in his parliamentary district.³ Whittaker's statement and our subsequent one-week period of study also came at the end of the month in which the UK experienced a record high number of racially or religiously aggravated offences (Home Office, 2021), suggesting a strong likelihood of extensive discourse about minorities during this period. The second one-week time period selected was the end of January 2021, a month that witnessed the lowest amount of hate crime and was a month for which we were unaware of any major events (like the controversial statement by Whittaker in July 2020) that would have been likely to trigger large amounts of Twitter

¹ Twitter announced on 2nd February 2023 that free access to Twitter API would be no longer be granted.

² The term 'BAME' has been debated in recent years and is increasingly being replaced by other terms such as 'global majority'. We use the term BAME in this paper because it was still being used broadly at the time of the study.

³ See at <https://www.bbc.co.uk/news/uk-politics-53612230> (accessed 5 November 2024).

discourse on minorities. We conducted computational sentiment analysis and topic modelling on tweets collected during those two weeks in order to compare Twitter-facilitated public opinions on ethnic and racial minorities at a high and low peak of public attention on blaming minorities in the COVID-19 context. This study aimed to provide insights on sentiments and views of ethnic and racial minorities on the part of members of the UK public, especially public views of those minorities that were seen as responsible for the spread of virus. The study ultimately provides broader insights into anti-minority sentiments and othering discourses communicated online, calling for more attention to how such sentiments and discourses online are juxtaposed to *anti*-prejudice and antiracist discourses found within what is broadly conceived as British public opinion.

Literature Review

Othering in the mass media during a public crisis

The dichotomy between the good ‘us’ and the bad ‘others’ is reflected in many countries’ media representations of other countries, dividing the world into zones of superior or inferior, dangerous or safe, and articulating discourses of global power structures (Joye, 2010). In individual countries, ethnic and religious minority groups are often portrayed by mainstream media as ‘others’ who pose a threat to the national interest, based on a binary view of us vs. them, indicating discourses of power structure within a society (Breen et al., 2006; Ghauri et al., 2021). Thus media representations of the ‘others’ can be politicised and xenophobic, with an aim to protect the sovereignty and power of the nation-state’s majority (Lueck et al., 2015). In many countries, including the UK, social divisions over immigration and ethnic and religious diversity existed amid rapid mushrooming of public discourses, debates and controversies over these topics (Hickman et al., 2012). Blame and supposed culpability of minority groups (e.g., Jewish community) within a disease narrative can be

traced back to the Black Death (Gilman, 2021). Pandemics and other health crises of the past have shown that fear and stigma commonly emerge in response to these traumatic events, in turn resulting in narratives of containment, spread and control (Fischer et al., 2019). Fear and stigma can lead to prejudice and discrimination toward certain groups (Usher et al., 2020).

During a public crisis, media systems are closely tied with political systems and media representations are often driven by the political interests of the news organisations (Hallin & Mancini, 2004). Negative media representations of immigrants and ethnic minorities may be created as an ideological tool to support xenophobic political views, which generates fear among the majorities towards the ‘others’ (Breen et al., 2006). Stuart Hall and others have argued that racism operates by creating symbolic divisions between racial categories and that media organisations try to normalise the distinction between ingroups and outgroups in society (Chen & Morley, 2006; Hall, 2017). Mass media’s framing and representations of ethnic minorities can be especially negative during a public crisis, when national identities and cultural norms are under threat by apparent differences between outgroups and ingroups, and this can take place in many countries across the globe. During the COVID-19 pandemic, American and Korean news media portrayed China as the ‘Other’, using their own unique (American and Korean respectively) nationalistic narratives during the outbreak of COVID-19 (Chung et al., 2021). In India, television reports during the first wave of COVID-19 revealed negative narratives in the representation of Muslims in support of the ethno-nationalistic ideology of the ruling party, portraying Muslims as uncivilised ‘others’ and a threat to public health (Kumar, 2023). In the UK, the mainstream media presented a blame narrative on BAME communities in their news reports on COVID-19 (Aujla-Sidhu & Briscoe-Palmer, 2024).

The othering discourse in mass media during a public crisis can influence the public’s views about who is to blame for the crisis, which can lead to more racism and hate crime. After the

first COVID-19 case was reported in Wuhan, China, hate crimes including blaming rhetoric, physical distancing and verbal and physical assaults directed at those perceived to be Chinese increased in the UK, US and other countries (Gover et al., 2020; Gray & Hansen, 2021). In the US, people who were ethnically Chinese or East Asian faced the anxiety of being subject to prejudice and hate crimes during the pandemic (Tessler et al., 2020), whilst hate crimes against East Asians were reported at the highest levels in large American cities such as Los Angeles and New York (Kim et al., 2022). Within China, Wuhan and Hubei residents were stigmatised and discriminated against by the non-Hubei Chinese population; Africans living in China were also stigmatised for allegedly not respecting rules and norms (Xu et al., 2021). In the UK, it was reported that racist attacks intensified during the COVID-19 pandemic (Home Office, 2021) and existing divisions appeared to become even more prominent through multiple and diverse instances of blaming immigrants or minorities for the start or spread of the coronavirus. The data from the London Metropolitan police revealed that in the months after the COVID-19 outbreak, there was an increase in hate crimes against Chinese people in London, although this increase was not initially evident among other ethnic groups (Gray & Hansen, 2021). In addition to anti-Chinese behaviour and rhetoric, other ethnic and racial minorities were blamed throughout the COVID-19 crisis for spreading the virus because of alleged continued religious participation (e.g., going to mosques), holding large gatherings under lockdown, or living in large households (Awan et al., 2021; Clarke, 2020).

Othering and blaming on social media during the pandemic

Prior to the pandemic, social media such as Twitter had already been used in articulating othering discourse and spreading hate in the UK at public events such as football championships (Glynn et al., 2025). In the context of a pandemic, fear and anxiety are

known common responses to infectious outbreaks (Usher et al., 2020); these emotions and the loneliness under lockdown had negative impacts on individuals' mental health (Al-Dwaikat et al., 2020). While Internet users sought support and socialised through social media in the emergence and spread of COVID-19, they were also exposed to misinformation and conspiracy on Twitter, Facebook and other platforms (Gruzd & Mai, 2020; Saud et al., 2020). When a disease or virus like COVID-19 is fatal and spreading quickly, promoting 'othering' and blaming outgroups can be an unintentional mechanism to cope with such fear and anxiety of the unknown and uncertainty, and the associated economic, social and political consequences (Dionne & Turkmen, 2020). It has been argued that conspiracy and uncertainty during COVID-19 led to the blaming of ethnic and religious minorities on social media (Anand & Hsu, 2020). The othering discourse in the British press was also likely to influence how the public responded to the pandemic on social media, pushing members of the public to focus on ethnic minorities who were suggested to be to blame by various mass media. A number of studies have examined othering and blaming on social media during COVID-19, but mostly focused on the US context. Croucher et al. (2020) found that in the United States, social media channels facilitated misinformation and biased attitudes towards Asian-Americans, and that those consuming this information internalised it. Kim et al. (2022) collected and analysed tweets by users from large American cities and found that users from cities with higher level of reported hate crimes were more likely to post uncivil opinions, mostly against China and Chinese irrespective of where they live. Lu and Liu (2023) studied social media discourses toward four ethnic communities in the United States - Asians, Blacks, Hispanics, and Native Americans - and found that the Black community suffered structural inequality, racism, and discrimination, whilst the other three ethnic communities experienced a more political-driven and implicit form of inequality. A study conducted by US based researchers examined anti-Asian racism and hate on Twitter in the

immediate months after the COVID-19 outbreak and revealed that hate and counter speech accounts interacted and engaged extensively with one another; and suggested an echo chamber effect as the users were highly likely to become hateful after being exposed to hateful content (He et al., 2021). However, this study was not able to provide a picture of discourse in any specific country or region as it collected all English-language tweets concerning COVID-19.

Overall, existing evidence suggests that social media have provided an important platform for individuals to share experiences and opinions as well as seek and gain support and socialise during public health or other crises. Missing from this existing literature is an analysis of UK users' social media practice during COVID-19 in relation to public opinions towards ethnic and racial minorities. The United Kingdom is an ethnically diverse society - according to the 2021 Census, 81.7% of the total population of England and Wales were white and approximately 18% identified themselves as black, Asian or other ethnic groups⁴. Also of importance is that by 2020, 92% of adults in the UK have used the Internet (Prescott, 2021). Among Internet users in the UK, 30% have Twitter accounts (Blank & Lutz, 2017). The combination of high levels of diversity, high levels of social media use and prominent instances of blaming minorities for the spread of COVID-19 in the UK suggest the possibility of social media being used by a large portion of the public to express opinions on this issue, and that blaming encompassed not just those of Chinese origin but also other ethnic minority groups (Clarke, 2020). This paper presents an analysis of Twitter data, so as to provide insights on the sentiments and views of members of the UK public about minority ethnic groups in the country. Thus, this study seeks to answer the following research question: Is there othering discourse online on minorities in the UK during a time of crisis?

⁴ See at <https://www.ethnicity-facts-figures.service.gov.uk/uk-population-by-ethnicity/national-and-regional-populations/population-of-england-and-wales/latest/> (accessed 16 August 2024)

Taking COVID-19 related tweets from British users as a case study, we examine the opinions and sentiments about ethnic and racial minorities in the UK on Twitter during a major public crisis.

Methodology

In order to collect tweets related to the pandemic, we adopted a similar data harvesting approach to previous studies (e.g., Awan et al., 2021; Kehoe, 2021) and utilised the following 22 keywords that were related to COVID-19 to retrieve relevant tweets.

*#covid?19uk OR #covid?2019uk OR coronavirus OR covid OR #coronavirus OR
#covid OR #covid19 OR #covid2019 OR #covid-19 OR #covid-2019 OR #covid_19
OR #covid_2019 OR #covid?19 OR #covid?2019 OR #coronavirusuk OR #coviduk
OR #covid19uk OR #covid2019uk OR #covid-19uk OR #covid-2019uk OR
#covid_19uk OR #covid_2019uk*

Ideally, data collection of COVID-related tweets would cover the duration of the pandemic. However, when we tested data collection for one random week, it took approximately fifteen hours and returned over two million tweets that matched the search criteria. This suggested that collecting COVID-related data for the entire pandemic period would be massive-scale and highly time-consuming. We therefore decided to collect tweets for two one-week periods to ensure that data collection was manageable. Moreover, for the two weeks selected, we were able to make comparisons at a high and low peak of public attention on minorities during the studied public health crisis.

The first one-week period came immediately after Conservative Party MP Craig Whittaker stated that ‘It is the BAME communities that are not taking this seriously enough’ in an interview with LBC which was published on LBC website, and LBC tweeted about this on

31 July 2020.⁵ This statement came on the first day of Eid al-Adha, or ‘sacrifice feast’, a major holiday celebrated from the evening of Thursday 30 July to Monday 3 August in 2020, by Muslims worldwide. The day before the start of Eid, new local restrictions were placed on household gatherings in many areas across the UK with a high concentration of minorities such as Leicester and Bradford where COVID infections were also high⁶.

Bradford is where Whittaker’s constituency was located and has been known for having areas where the majority of the population are Muslims⁷. Leicester, which had been the first city to go into local lockdown due to high infection rates, has also been widely known for its high level of ethnic diversity⁸. In the lead up to Whittaker’s statement, people had already been talking via social media, claiming that Leicester’s minorities (who were allegedly ignoring social distancing guidelines) were the cause of the high level of infections there (Clarke, 2020). This same month (July 2020) witnessed the highest amount of hate crime to date (Home Office (2021)). Given this context, we expected that the statement by Whittaker would generate a large volume of tweets about minorities. The timeframe for data collection was set from 31 July 2020, 8:33am to 7 August 2020, 8:33am.

The second week was chosen to be a period during the pandemic when there was less focus on minorities. This is because the first selected week may be seen as an unusually contentious and explosive time during the pandemic in terms of intergroup relations and so the topics and sentiments may also have been unusual. The second week selected was the end of January 2021, which witnessed the lowest amount of hate crime during the pandemic and was a month for which we were unaware of any major events that would have triggered

⁵ See at <https://www.bbc.co.uk/news/uk-politics-53612230> (accessed 5 November 2024).

⁶ See at <https://www.theguardian.com/uk-news/2020/jul/02/it-will-be-devastating-bradford-fears-a-new-lockdown> (accessed 21 May 2024)

⁷ See at <https://www.theguardian.com/uk-news/2015/jun/19/bradford-one-city-two-cultures-communities-lead-parallel-lives> (accessed 21 May 2024)

⁸ See at <https://www.leicester.gov.uk/content/beyond-the-lockdowns-lessons-learned-from-leicester-s-covid-story/healthy-places/> (accessed 15 August 2024)

large amounts of discussions on minorities. The data collection timeframe was set from 31 January 2021, 00:00am to 7 February 2021, 00:00am.

In order to collect data from UK-based Twitter users, we assessed various approaches in tracking tweets' locations. Previous studies (Arthur & Williams, 2019; Yang et al., 2016) collected tweets with UK-based location tags that were added by the users themselves. According to Twitter (2021), only 1-2% of tweets have location tags and this approach would have excluded a large number of tweets from UK-based users. Instead, we proposed an innovative approach, as described in Zhang et al. (2024), to identifying location-specific tweets. We first used Python to gather and save all eligible tweets that contained the relevant keywords, as described earlier, for the two time periods. After de-duplication, the dataset for the July - August 2020 period contained 2,028,066 eligible tweets, and the dataset for the January - February 2021 period contained 1,446,506 eligible tweets. Our approach was based on the location information in users' account profiles. The data was categorised into three types: a) tweets without location-tag or information about location in user profiles, b) tweets without location-tags but with user profiles containing location information, and c) tweets with location-tags. We filtered out the first type of tweets, as no location information could be used to presume where these tweets originated. We kept the third type in the dataset, as they included UK-based location tags. For the second type, we applied a database (GeoNames, 2005) which contained 69,771 UK-based location names and a Python library, called 'geotext', to match the locations mentioned in users' profile and identify UK-based tweets. After data screening, 166,364 tweets for the July -August 2020 week and 151,750 tweets for the January - February 2021 week were kept for analysis. We applied 13 keywords that were relevant to the focus of the study in relation to ethnic groups: *race*, *white*, *muslim*, *bame*, *eid*, *asian*, *leicester*, *bradford*, *china*, *chinese*, *india*, *africa*, *ethnic*. As noted above, Leicester and Bradford reported the highest number of infections early in the

pandemic and we ensured that tweets referring to these cities were included. Also, we included tweets referring to China, India and Africa, as these were geographical contexts that were frequently mentioned in the mainstream media in 2020 and early 2021 due to the start of the pandemic in China and to the reference to new COVID variants as the ‘Indian variant’ and ‘South African variant’. The final datasets we analysed contained 5,763 and 3,696 tweets for the two time periods, respectively.

We conducted computational thematic analysis and sentiment analysis on these two datasets to examine how sentiments and opinions were expressed about those ethnic and racial groups. The computational thematic analysis we conducted involved both quantitative and qualitative approaches such as computational topic modelling and qualitative thematic analysis (Delgosha et al., 2022). Topic modelling is a machine learning method that identifies topics in large textual data (Blei et al., 2003). For topic modelling, we applied *Contextualized Topic Models (CTM)*, which uses pre-trained representations of language and has proven to generate more coherent topics than other commonly used approaches, such as the Latent Dirichlet allocation (LDA), to find N topics in the collected tweets (Bianchi et al., 2020). The best N value was 20 topics for the July-August 2020 week and 10 topics for the January-February 2021 week. In order to better understand the opinions of each topic, we retrieved the top 30 tweets that were most likely assigned to each topic based on the possibilities given by CTM. Each tweet was assigned to a topic based on the results of topic modelling but the same tweet could appear in multiple (more than one) topics. We then conducted qualitative thematic analysis, as per the guidelines from Braun and Clarke (2006). We identified 14 themes for the first period and 8 themes for the second period.

As for sentiment analysis, we applied a Transformer-based model, *pysentimiento* (Pérez et al., 2021), which has been shown to perform well in previous studies (Gillioz et al., 2020). For each tweet, *pysentimiento* returned the possibility of the tweet belonging to different

sentiments (i.e., positive, neutral, negative), and the sentiment with the highest probability was chosen as the sentiment of that tweet. Positive was coded as 1, neutral was coded as 0, and negative was coded as -1, and the sentiment of the two datasets was calculated based on the sentiment of each tweet in the respective dataset. In addition, the sentiment of each keyword in the two datasets was calculated based on the sentiment of the tweets containing the keyword, and the sentiment of each topic in the two datasets was calculated based on the sentiment of the tweets belonging to each topic. We selected the top-ten retweeted tweets containing the keywords and conducted a qualitative examination, guided by previous studies (Moernaut et al., 2022; Stevens & Allen-Robertson, 2021). The qualitative examination allowed us to explain possible reasons behind such negative or positive sentiments, complemented by illustrative quotations of the discourses identified for the purpose of the study. Throughout data collection and analysis, we complied with the ethical guidelines of the involved institutions and paraphrased all the personal opinion tweets to protect the anonymity of the users.

Findings

Themes in tweets

Table 1 reports the theme associated with each topic for the 20 and 10 topics in the first and second week, respectively. For the July-August 2020 week, we identified mostly positive narratives towards South Asians and Muslims living in the UK. For example, Topics 1 and 7 focus on the celebration of Eid and the tweets in this theme are mainly about sending wishes to Muslim communities, hoping they could enjoy Eid while keeping safe. Topics 3 and 10 include narratives that BAME communities should not be blamed for the spread of COVID-19 and the associated tweets mainly critiqued Craig Whitaker and the UK government for

racial discrimination whilst stating that BAME communities had taken COVID-19 seriously. Similarly, Topic 8 shows support for BAME communities, whilst Topics 9 and 11 address the vulnerability of ethnic minorities. Topic 9 contains the discourse that BAME communities are disadvantaged and face more socio-economic barriers to protecting themselves from the virus. Topic 11 is associated with the theme that discusses the medical, socio-economic, political and cultural discrimination towards BAME communities during the pandemic. In this first-week period, the blaming discourses are mainly pointed at China and the Chinese government. For example, Topics 6 and 16 focus on blaming China for the origins of COVID-19 and the associated tweets discuss the negative publicity received by the Chinese authorities in coping with the crisis (e.g., tweets commenting on news articles on claims of scientists that COVID-19 originated from a military lab in China).

Regarding the January-February 2021 week, we identified some narratives on blaming China, but not as much as in the July-August 2020 week. The tweets in this theme blamed China for its participation in making and shipping unreliable test kits and fake vaccines to the UK, as well as for generating profits inappropriately from mass production of face masks. The UK was the first country to approve a COVID-19 vaccine and launched its vaccination programme on 8 December 2020 when the vaccine was made available to the public (Tessier et al., 2022). Hence, many of the tweets produced in this period are related to news articles on ethnic minorities being vaccinated. For instance, Topic 28 calls for BAME communities to get vaccinated. Tweets in this theme focus on the importance of BAME communities to be vaccinated encouraging them to do so. In January 2021, Health Secretary, Matt Hancock, told the BBC that the variant of coronavirus originally identified in South Africa was especially concerning (Ellyatt, 2021). Topic 21 is related to the concern of this new variant. Tweets in this theme mainly discuss the urgent mass testing conducted in some areas of the UK in order to stop the spread of the South African coronavirus variant.

Sentiments and illustrative tweets

An overall negative sentiment for both weeks was quite dominant, as shown in Figure 1, whilst the sentiment in the July-August 2020 week was more negative than that in the January-February 2021 week. Table 2 reports the frequency and the sentiments expressed about the 13 keywords of concern to this study. For the July-August 2020 week, the key word 'china' (17.61%) had the highest frequency, followed by 'africa' (12.74%), 'india' (12.08%) and 'bame' (12.18%). As for sentiments, 'bame' (-0.701) was the keyword assigned the most negative sentiment, followed by 'ethnic' (-0.601), 'chinese' (-0.502) and 'white' (-0.495). Eid is the only keyword assigned a positive sentiment (0.103) in the July-August 2020 week as many tweets that include 'Eid' were expressing support and sympathy. A qualitative examination of the top ten retweeted tweets containing each keyword reveals the source origins and discourse related to such negative or positive sentiments. The tweets that received the most retweets are mostly news articles, with some of them being personal opinions. Next, we will demonstrate illustrative quotations related to specific keywords to showcase examples of discourse related to ethnic and racial minorities.

For the July-August 2020 week, although CTM and computational thematic analysis revealed mostly positive tweets towards south Asians and Muslims living in the UK, blaming discourse on black and ethnic minorities was evident on Twitter when we examined the top ten retweeted tweets containing the 13 keywords believed to be related to ethnic and racial minorities listed above. For example, a Twitter user stigmatised Black people for not respecting social distancing by saying:

*They ask why more Black people than White people get coronavirus....
three Middle Aged African guys at chip shop tonight.... not respecting*

social distancing outside.....no observation of maximum three people in a shop at one time....no face maskslaw unto themselves.

Another user tweeted with regards to the local lockdown policies implemented before Eid:

Muslims in Manchester, East Lancashire & West Yorkshire should stop complaining about not being able to celebrate EidAlAdha. They have brought it on themselves, because they didn't follow COVID restrictions. Christians didn't complain when they couldn't celebrate Easter. Follow the #COVID-19 regulations or suffer the consequences.

Although the analysis suggested the prevalence of negative sentiment for all the ethnicity-related keywords except 'eid', an examination of the Twitter texts revealed that negative sentiments are not necessarily linked with a blaming discourse toward ethnic and religious minorities. This is because many of those tweets expressed dissatisfaction with the UK government's policies and approaches in dealing with the pandemic and creating a hostile environment towards ethnic and racial groups among the general public. For example, the following tweet coded as -1 sentiment on the keyword 'muslim' was in fact a complaint about the government and endorsed a positive tone on the advice to stay safe:

The government is trying to distract people from its own bad management of the pandemic by putting lockdown protocols in place before Eid al-Adha and implying that Muslims are at fault. Please follow the safety advice, but don't fall for this racist bullshit'.

The following tweet also has a negative sentiment on ‘bame’, but in fact the user blamed politicians for the poor treatment of minorities:

High minority death rates are a result of working conditions and it is unforgivable that officials are blaming BAME people for their own deaths.

On the other hand, the keyword ‘eid’ was ascribed positive sentiment in the July - August 2020 week, as those tweets were indeed wishing people well during Eid:

*Here's some safety protocols to follow when celebrating #EidAlAdha...
Have a wonderful Eid but take precautions against COVID.*

Rather unsurprisingly, from the tweets on ‘china’ with sentiment coded as -1, we identified a narrative of blaming China, as a nation, for COVID-19. Negative tweets on China-related topics in this period included negative news reports, conspiracy speculation, human rights under strict lockdown, and reference to the economy and animal rights. For example, the following tweet was a response to a news article published by the Express:

China covers up: COVID-19 'created in military lab' not wet market says scientist who fled <https://t.co/2OOrDvr8D3>.

Another tweet said:

*China has been using Covid-19 to increase its assertiveness in the South China Sea, argues Richard Heydarian, but such opportunism has sparked push-back across the region and beyond. <https://t.co/4bPK1DuNjw>
<https://t.co/t9TQfRWr34>*

The opinion on Chinese authorities' strict lockdown policy also received a great amount of attention as shown in the number of retweets:

Why is everyone talking about China and COVID-19 right now but nobody cares about China's concentration camps and what happened to Uighur Muslims. It makes my skin crawl.

For the January – February 2021 week, sentiment analysis revealed the existence of less negative sentiments in relation to most keywords compared to the July – August 2020 week. Exceptions were the keywords 'eid' and 'africa'. On one hand, we only found three tweets related to Eid since it was less relevant at this time of the year and the narrative on showing support for Eid-celebration in response to the controversial statement by Whittaker in July 2020 would have disappeared at this point. On other hand, the variant of coronavirus originally identified in South Africa received much media attention and tweets on 'africa' were mainly disseminating news on the South African variant in the UK as well as on how the British government was dealing with the situation. For example, the following user tweeted about their frustration regarding government policy on travel and testing:

It seems contradictory that the government is so worried about the South African variant spreading and yet people are still able to get flights to Britain, land and then go onto public transportation.

The UK launched its COVID-19 vaccination programme in December 2020 and thus many of the collected tweets in this period were news articles on vaccinations. Having this focus, those tweets contained blaming discourses on ethnic and racial minorities. For example, many users retweeted a news article by the Daily Mail which reported the low vaccination rate of the BAME communities:

Around 15% of Britons are refusing to get their Covid vaccine and uptake is lowest in BAME groups, UK's jab tsar claims <https://t.co/T12NUkgUj8>.

At the same time, we found tweets where users expressed sympathetic personal opinions in response to news reports on BAME communities not getting vaccinated:

There are a lot of reports about minority people not getting vaccinated but this might be because they're worried about the jab producing minor symptoms, making them too ill to work and then they won't get paid.

In the January – February 2021 week, the investigation on the origins of coronavirus was still ongoing and blaming discourse against China and Chinese people was present mostly in tweets of news articles reporting negatively on COVID-19 test kits, vaccines and face masks produced in China. For example, this article published by Huffington Post questioned the reliability of Covid testing:

Government spending more than £1bn on 'unreliable' Covid tests flown in from China <https://t.co/CllSvE7ykr>

There are also personal opinions expressed in tweets that blamed Chinese people for COVID-19. For example, this tweet blames Chinese people for starting the pandemic and making unreliable vaccines:

The Chinese caused the world to go into lockdown. The consequences of this are still being felt. To make matters worse, the Chinese then sell faulty COVID jabs to us. These Chinese don't have the fear of God.

Another tweet we analysed blamed China for climate change and referenced an article on green recovery plans to cut emissions:

Don't buy anything from countries like China who are causing the climate crisis to become worse. <https://t.co/02AOFL4025>

Discussion

Seeking to explore public opinions and sentiments of social media users in the UK about ethnic and racial minorities during a public health crisis, this study reveals the existence of both positive and blaming narratives towards minorities on Twitter, with the supporting narratives outweighing the negative discourses. The topics and themes we identified from topic modelling and thematic analysis are mostly sympathetic and supportive towards ethnic and racial minorities in the UK, despite the overall sentiment being negative when Twitter users refer to BAME communities.

Methodologically, this study utilised an innovative approach to collecting location-specific tweets of UK users. Overall, whereas Twitter is used worldwide, very few studies have explored public discourse on Twitter by collecting and analysing the tweets of users who are based in one country. With our approach, we collected a much larger cohort of Twitter data compared to those using location-tagged tweets (Qazi et al., 2020).

Regarding the broader importance of the insights obtained in this study, the overall negative sentiment that initially appeared to prevail in both weeks under study confirmed the fear and stigma among the general public in response to public crises (Fischer et al., 2019), which may lead to acts of hate crime and discrimination against certain groups (Usher et al., 2020).

Many of the tweets that were coded negative were in fact news articles, indicating that 'othering' discourses within mass media content often becomes an ideological tool to

support xenophobic political views which may generate fear among the public towards ethnic and religious minorities (Breen et al., 2006). At the same time, however, we found that sentiments expressed about minorities on social media often paint a rather complex picture. On one hand and in line with previous studies (Anand & Hsu, 2020; Moreno Barreneche, 2020), we observed ‘othering’ discourse and the blaming of ethnic and racial minorities for spreading coronavirus and not getting vaccines as they should. On the other hand, we observed counter arguments, as Twitter users voiced their disagreement with the prejudice and hate expressed by Conservative Party MP Craig Whittaker’s statement in the first one-week period of the study. The latter is supported by the findings on topics and themes in the first week under study, which mostly were expressions of sympathy and support for BAME communities. This shows that social media constitutes a platform where citizens express a range of feelings that are more complex than one-dimensional discourses about disadvantaged groups in a time of crisis. At the same time, complex discourses on platforms like Twitter have shown the potential of social media to empower citizens towards responding to ‘othering’ or voicing their opinions on immigration and ethnic minorities (Haro-de-Rosario et al., 2018; Nasuto & Rowe, 2024). However, due to the nature of social media data, we cannot verify from user profiles a user’s identity or ethnicity, and thus we are not in a position to link specific racial and ethnic groups with narratives supporting or blaming specific racial and ethnic groups. Nevertheless, social media provides this opportunity for various ethnic groups and communities to self-represent and organise collective actions such as the #BlackLivesMatter movement (Carney, 2016).

Blaming discourses on China and Chinese people were also evident in the tweets we analysed. This is in line with previous studies in the US which also found anti-Asian racism and hate on social media (Croucher et al., 2020; Kim et al., 2022). Similar to what is noted above, tweets on ‘china’ and ‘chinese’ were mostly responses to news articles and this

‘othering’ and blaming narrative was also reflected in the rates of hate crimes and racism towards Chinese migrants in the UK and the US during the pandemic (Gorwa et al., 2020; Gray & Hansen, 2021). Nevertheless, we observed that the blaming discourses in the two weeks under study was mostly directed to China as a nation, rather than to the people of Chinese ethnicity living in the UK. This adds to the argument of complexity and non-linearity of the discourses on ethnic and racial minorities one can find online and on social media, in particular.

Comparing the two weeks under study, we found that, overall, sentiments in tweets in the July-August 2020 dataset were more negative than in the January-February 2021 dataset. This is what we expected based on our research design of data selection for two different time periods. In the July-August 2020 week, coronavirus vaccines were not available and the public faced more fear and anxiety regarding high mortality rates and uncertainty of when the precaution (i.e., vaccine) would be available. Social media can map the mood of the nation (Sykora et al., 2013), and we observed blaming and othering discourse of those who supported Whittaker’s claim on the adverse role of Muslims and BAME communities. At the same time, members of the public responded negatively to Whittaker’s statement, which also contributed to negative sentiment (i.e., about Whittaker’s statement) in this time period and the overall expression of dispute and disagreement on the platform. In the January-February 2021 week, the COVID-19 vaccine had become accessible to British people and Twitter users appeared to shift their attention to the solution to that health crisis, away from blaming an outgroup for the crisis. In this one-week period, the mainstream media were reporting heavily on BAME communities as being more likely to be affected by coronavirus, and the government and health authorities were encouraging ethnic minorities to get vaccinated. This attention is positive for the wellbeing of ethnic and racial minorities, although it may also influence the public perceptions of ethnic and racial minorities (e.g., of not cooperating

with recommendations), also leading to more negative sentiments on Twitter and elsewhere towards them. These nuances add to the picture of complexity of Twitter discourses as well as to the complexity of delving into the drivers and purposes of such discourses. Our findings thus have implications for understanding the blaming of minorities on social media during crises more generally, in the post-COVID era.

As for the limitations of this study, due to the large volume of COVID-19 related Twitter data being exceedingly time-consuming to collect and process, this study limited its data collection to two one-week periods. These, of course, cannot be generalised to the whole period of the pandemic. However, our findings provide a comparison of Twitter-facilitated public opinion and discourse on ethnic and religious minorities at a high and low peak of public attention to minorities in the context of a public health crisis in the UK. Future studies may collect data over a longer period to provide a clearer trend in discourse over time.

Additionally, the Twitter data used in this study were generated in 2020 and 2021 prior to the shift from Twitter to X in 2023, which has led some unhappy users to move on to other platforms. The changes in user demographics and tweeted content as a result of this are under-studied (Murthy, 2024). Future research needs to consider changes within the platform not only in terms of popularity but also with respect to the range of user discourses that are voiced via it and in relation to other, existing or new, platforms where public views and debates arise, in order to better understand important topics like public perceptions of, and sentiments toward, minorities during public crises and more generally.

References

- Al-Dwaikat, T. N., Aldalaykeh, M., & Rababa, M. (2020). The relationship between social networking sites usage and psychological distress among undergraduate students during COVID-19 lockdown. *Heliyon*, 6(12), e05695.

- Anand, D., & Hsu, L. (2020). COVID-19 and Black Lives Matter: Examining anti-Asian racism and anti-Blackness in US education. *International Journal of Multidisciplinary Perspectives in Higher Education*, 5(1), 190-199.
- Arthur, R., & Williams, H. T. (2019). Scaling laws in geo-located Twitter data. *PloS one*, 14(7), e0218454.
- Aujla-Sidhu, G., & Briscoe-Palmer, S. (2024). The use of the term Black, Asian and Minority Ethnic in The Voice and Eastern Eye newspapers, a discourse analysis of Covid news stories in the UK press. *Journalism*, 14648849241255029.
- Awan, I., Carter, P., Sutch, H., & Lally, H. (2021). *Covid-19: What are the Drivers of the Islamophobic Infodemic Communications on social media?* Retrieved 8 September, 2025 from <https://www.open-access.bcu.ac.uk/12536/1/csu2021314-muslim-covid-report-a4-landscape-v7-interactive-09-12-21-132838625775560900.pdf>
- Bianchi, F., Terragni, S., & Hovy, D. (2020). Pre-training is a hot topic: Contextualized document embeddings improve topic coherence. *arXiv preprint arXiv:2004.03974*.
- Blank, G., & Lutz, C. (2017). Representativeness of social media in great britain: investigating Facebook, LinkedIn, Twitter, Pinterest, Google+, and Instagram. *American behavioral scientist*, 61(7), 741-756.
- Blei, D. M., Ng, A. Y., & Jordan, M. I. (2003). Latent dirichlet allocation. *Journal of machine Learning research*, 3(Jan), 993-1022.
- Boon-Itt, S., & Skunkan, Y. (2020). Public perception of the COVID-19 pandemic on Twitter: sentiment analysis and topic modeling study. *JMIR public health and surveillance*, 6(4), e21978.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Breen, M. J., Devereux, E., & Haynes, A. (2006). *Fear, framing and foreigners: The othering of immigrants in the Irish print media*. Retrieved 8 September, 2025 from <https://dspace.mic.ul.ie/bitstream/handle/10395/1350/Breen;jsessionid=1322FFCB3EF7818ED9C275A20233C41E?sequence=2>
- Carney, N. (2016). All lives matter, but so does race: Black lives matter and the evolving role of social media. *Humanity & society*, 40(2), 180-199.
- Charquero-Ballester, M., Walter, J. G., Nissen, I. A., & Bechmann, A. (2021). Different types of COVID-19 misinformation have different emotional valence on Twitter. *Big Data & Society*, 8(2), 20539517211041279.
- Chen, K.-H., & Morley, D. (2006). *Stuart Hall: Critical dialogues in cultural studies*. Routledge.
- Chung, A. Y., Jo, H., Lee, J.-w., & Yang, F. (2021). COVID-19 and the political framing of China, nationalism, and borders in the US and South Korean news media. *Sociological Perspectives*, 64(5), 747-764.
- Clarke, A. (2020). *Leicester lockdown: blame on minority communities needs to be challenged*. Retrieved 29 April, 2025 from <https://theconversation.com/leicester-lockdown-blame-on-minority-communities-needs-to-be-challenged-142418>
- Croucher, S. M., Nguyen, T., & Rahmani, D. (2020). Prejudice toward Asian Americans in the COVID-19 pandemic: The effects of social media use in the United States. *Frontiers in Communication*, 5, 39.
- Delgosha, M. S., Hajiheydari, N., & Talafidaryani, M. (2022). Discovering IoT implications in business and management: A computational thematic analysis. *Technovation*, 118, 102236.
- Dionne, K. Y., & Turkmen, F. F. (2020). The politics of pandemic othering: Putting COVID-19 in global and historical context. *International Organization*, 74(S1), E213-E230.

- Ellyatt, H. (2021). *Covid variant in South Africa is 'more of a problem' than the one in UK, official says*. BBC. Retrieved 4 March, 2025 from <https://www.cnn.com/2021/01/04/south-african-coronavirus-variant-more-of-a-problem-than-uk-one.html>
- Fischer, L. S., Mansergh, G., Lynch, J., & Santibanez, S. (2019). Addressing disease-related stigma during infectious disease outbreaks. *Disaster medicine and public health preparedness*, 13(5-6), 989-994.
- GeoNames. (2005, 24 June 2022). *GeoNames*. GeoNames. Retrieved 2 March, 2025 from <https://www.geonames.org/>
- Ghuri, M. J., Umber, S., & Haq, A. (2021). Exploring the othering discourse in the Australian Press. *Journal of Media & Communication (JMC)*, 2(1).
- Gillioz, A., Casas, J., Mugellini, E., & Abou Khaled, O. (2020). Overview of the Transformer-based Models for NLP Tasks. (Ed.),^(Eds.). 2020 15th Conference on Computer Science and Information Systems (FedCSIS).
- Gilman, S. L. (2021). Placing the blame for COVID-19 in and on ultra-orthodox communities. *Modern Judaism*, 41(1), 1-30.
- Glynn, E., Brown, D. H., & Edwards, L. (2025). Discriminatory Meme Culture on Football Twitter: Othering and Racialisation Through Insensitive Humour. *Media Watch*, 16(2), 138-169.
- Gorwa, R., Binns, R., & Katzenbach, C. (2020). Algorithmic content moderation: Technical and political challenges in the automation of platform governance. *Big Data & Society*, 7(1), 2053951719897945.
- Gover, A. R., Harper, S. B., & Langton, L. (2020). Anti-Asian hate crime during the COVID-19 pandemic: Exploring the reproduction of inequality. *American journal of criminal justice*, 45(4), 647-667.
- Gray, C., & Hansen, K. (2021). Did Covid-19 Lead to an Increase in Hate Crimes Toward Chinese People in London? *Journal of Contemporary Criminal Justice*, 37(4), 569-588.
- Gruzd, A., & Mai, P. (2020). Going viral: How a single tweet spawned a COVID-19 conspiracy theory on Twitter. *Big Data & Society*, 7(2), 2053951720938405.
- Hall, S. (2017). *The fateful triangle: Race, ethnicity, nation*. Harvard University Press.
- Hallin, D. C., & Mancini, P. (2004). *Comparing media systems: Three models of media and politics*. Cambridge university press.
- Haro-de-Rosario, A., Sáez-Martín, A., & del Carmen Caba-Pérez, M. (2018). Using social media to enhance citizen engagement with local government: Twitter or Facebook? *New Media & Society*, 20(1), 29-49.
- He, B., Ziems, C., Soni, S., Ramakrishnan, N., Yang, D., & Kumar, S. (2021). Racism is a virus: Anti-Asian hate and counterspeech in social media during the COVID-19 crisis. (Ed.),^(Eds.). Proceedings of the 2021 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining.
- Hickman, M. J., Mai, N., & Crowley, H. (2012). *Migration and Social Cohesion in the UK*. Springer.
- Home Office. (2021). *Hate Crime, England and Wales, 2020/21: Appendix Table 6*. Retrieved 1 July, 2025 from https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fassets.publishing.service.gov.uk%2Fgovernment%2Fuploads%2Fsystem%2Fuploads%2Fattachme nt_data%2Ffile%2F1023575%2Fhate-crime-2021-appendix-tables-121021.ods&wdOrigin=BROWSELINK
- Joye, S. (2010). News discourses on distant suffering: a Critical Discourse Analysis of the 2003 SARS outbreak. *Discourse & Society*, 21(5), 586-601.

- Kehoe, A., Gee, M., Lawson, R., McGlashan, M., Tkacukova, T. (2021). *TRAC:COVID – Trust and Communication: A Coronavirus Online Visual Dashboard*. Retrieved 1 July, 2025 from <https://traccovid.com>
- Kim, B., Cooks, E., & Kim, S.-K. (2022). Exploring incivility and moral foundations toward Asians in English-speaking tweets in hate crime-reporting cities during the COVID-19 pandemic. *Internet Research*, 32(1), 362-378.
- Kumar, A. (2023). “Virus Jihad”: The (Mis) Representation of Muslims during Covid 19 Outbreak in Indian Media. *Howard Journal of Communications*, 1-21.
- Li, Y., Guan, M., Hammond, P., & Berrey, L. E. (2021). Communicating COVID-19 information on TikTok: a content analysis of TikTok videos from official accounts featured in the COVID-19 information hub. *Health education research*, 36(3), 261-271.
- Lu, J., & Liu, J. (2023). Communicating Concerns, Emotional Expressions, and Disparities on Ethnic Communities on Social Media During the COVID-19 Pandemic: A Structural Topic Modeling Approach. *American behavioral scientist*, 00027642231164046.
- Lueck, K., Due, C., & Augoustinos, M. (2015). Neoliberalism and nationalism: Representations of asylum seekers in the Australian mainstream news media. *Discourse & Society*, 26(5), 608-629.
- Matthews, J., & Heesambee, F. (2024). COVID-19 and figures of blame: Discursive representations of blame for COVID-19 and its impacts in UK online news. *Discourse & Communication*, 18(3), 415-432.
- Moernaut, R., Mast, J., Temmerman, M., & Broersma, M. (2022). Hot weather, hot topic. Polarization and sceptical framing in the climate debate on Twitter. *Information, Communication & Society*, 25(8), 1047-1066.
- Moreno Barreneche, S. (2020). Somebody to blame: On the construction of the other in the context of the COVID-19 outbreak. *Society Register*, 4(2), 19-32.
- Murthy, D. (2024). Sociology of twitter/x: Trends, challenges, and future research directions. *Annual review of sociology*, 50(1), 169-190.
- Nasuto, A., & Rowe, F. (2024). Understanding anti-immigration sentiment spreading on Twitter. *PloS one*, 19(9), e0307917.
- Nguyen, T., Croucher, S. M., Diers-Lawson, A., & Maydell, E. (2021). Who’s to blame for the spread of COVID-19 in New Zealand? Applying attribution theory to understand public stigma. *Communication Research and Practice*, 7(4), 379-396.
- Pérez, J. M., Giudici, J. C., & Luque, F. (2021). pysentimiento: A python toolkit for sentiment analysis and socialnlp tasks. *arXiv preprint arXiv:2106.09462*.
- Poole, E., & Williamson, M. (2023). Disrupting or reconfiguring racist narratives about Muslims? The representation of British Muslims during the Covid crisis. *Journalism*, 24(2), 262-279.
- Prescott, C. (2021). *Internet users, UK: 2020*. Retrieved 16 September, 2025 from <https://www.ons.gov.uk/businessindustryandtrade/itandinternetindustry/bulletins/internetusers/2020>
- Qazi, U., Imran, M., & Ofli, F. (2020). GeoCoV19: a dataset of hundreds of millions of multilingual COVID-19 tweets with location information. *SIGSPATIAL Special*, 12(1), 6-15.
- Rawat, A., Kumar, S., & Samant, S. S. (2024). Hate speech detection in social media: Techniques, recent trends, and future challenges. *Wiley Interdisciplinary Reviews: Computational Statistics*, 16(2), e1648.
- Saud, M., Mashud, M. i., & Ida, R. (2020). Usage of social media during the pandemic: Seeking support and awareness about COVID-19 through social media platforms. *Journal of Public Affairs*, 20(4), e2417.

- Singh, L., Bansal, S., Bode, L., Budak, C., Chi, G., Kawintiranon, K., Padden, C., Vanarsdall, R., Vraga, E., & Wang, Y. (2020). A first look at COVID-19 information and misinformation sharing on Twitter. *arXiv preprint arXiv:2003.13907*.
- Stevens, A., & Allen-Robertson, J. (2021). Encrypting human rights: The intertwining of resistant voices in the UK state surveillance debate. *Big Data & Society*, 8(1), 2053951720985304.
- Sykora, M. D., Jackson, T. W., OBrien, A., & Elayan, S. (2013). National security and social media monitoring: A presentation of the emotive and related systems. (Ed.),^(Eds.). 2013 European Intelligence and Security Informatics Conference.
- Tessier, E., Rai, Y., Clarke, E., Lakhani, A., Tsang, C., Makwana, A., Heard, H., Rickeard, T., Lakhani, S., & Roy, P. (2022). Characteristics associated with COVID-19 vaccine uptake among adults aged 50 years and above in England (8 December 2020–17 May 2021): a population-level observational study. *BMJ open*, 12(3), e055278.
- Tessler, H., Choi, M., & Kao, G. (2020). The anxiety of being Asian American: Hate crimes and negative biases during the COVID-19 pandemic. *American journal of criminal justice*, 45, 636-646.
- Twitter. (2021). *Advanced filtering with geo data*. Retrieved 1 July, 2025 from <https://developer.twitter.com/en/docs/tutorials/advanced-filtering-for-geo-data>
- Usher, K., Durkin, J., & Bhullar, N. (2020). The COVID-19 pandemic and mental health impacts. *International journal of mental health nursing*, 29(3), 315.
- Xu, J., Sun, G., Cao, W., Fan, W., Pan, Z., Yao, Z., & Li, H. (2021). Stigma, discrimination, and hate crimes in Chinese-speaking world amid Covid-19 pandemic. *Asian journal of criminology*, 16(1), 51-74.
- Yang, J.-A., Tsou, M.-H., Jung, C.-T., Allen, C., Spitzberg, B. H., Gawron, J. M., & Han, S.-Y. (2016). Social media analytics and research testbed (SMART): Exploring spatiotemporal patterns of human dynamics with geo-targeted social media messages. *Big Data & Society*, 3(1), 2053951716652914.
- Zhang, S., Tsatsou, P., McLaren, L., & Zhu, Y. (2024). Comparing location-specific and location-open social media data: methodological lessons from a study of blaming of minorities on Twitter during the COVID-19 pandemic. *Journal of computational social science*, 1-23.