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Using Twitter Comments to Understand People's Experiences of UK Health Care During the COVID-19 Pandemic

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Background

The COVID-19 pandemic changed health service utilisation patterns with a rise in care being delivered remotely. However, there has been little published research examining patients' experiences of remote care delivery since COVID-19.

The aim of this study was to use Twitter content to understand discourse around health and care delivery as a result of COVID-19, focusing on Twitter users' views on and attitudes toward care being delivered remotely.

Methods

1,408 tweets posted from the UK between January 2018 and October 2020 across three search terms were extracted using the Twitter application programming interface. 161 tweets were removed following deduplication and 610 were identified as irrelevant to the research question. The remaining relevant tweets (N=637) were coded into categories, and assigned a positive, neutral, or negative sentiment.

Results

Figure 1: Sentiment of tweets by theme

10%

74[%]



Access to remote care (n=267)
Quality of remote care (n=130)
Anticipation of remote care (n=39)

Sentiment of the tweets changed over time. During the initial stages of the pandemic (March- May 2020), there was almost double the proportion of comments in theme 1 with a positive tone (45%, n=37) when compared with those posted in the time periods both before COVID-19 (Jan 2018-Feb 2020, 26%, n=21) and subsequently when some of the restrictions had been lifted (June-Oct 2020, 25%, n=26).

22[%] 15[%]

21%

5%

52%

62[%]

38%

Online booking / asynchronous communication (n=85)

The volume of tweets on remote care delivery increased markedly following the COVID-19 outbreak. Five main themes were identified in the tweets:

1. Access to remote care (n=267):

This theme accounted for 39% of overall tweets, and included views on accessing phone or video appointments, including the ease / difficulty of making an appointment.

The overall sentiment of tweets coded within the 'access to remote care' theme were mixed (see Figure 1).

2. Quality of remote care (n=130):

This theme accounted for 19% of overall tweets, and included views and experiences on the standard of care provided and the nature of the interaction with healthcare professionals. Although remote consultations were being implemented before COVID-19, only 17% (n=22) of the tweets coded in this theme mentioned quality of remote care prior to March 2020. o Just over half of the tweets in this theme were positive in sentiment (see Figure 1).

3. Publicising changes to services or care delivery (n=160):

- o This theme accounted for 24% of overall tweets, which included publicising remote ways of care delivery, and informing people of changes to care as a result of COVID-19.
- While such tweets do not provide insight into people's views or experiences of care being delivered remotely, this theme highlights the role that social media plays in communicating about service change, and how COVID-19 has advanced the use of technology in care delivery.

4. Online booking and asynchronous communication (n=85):

This theme accounted for 13% of overall tweets, and included experiences of using online appointment booking systems or asynchronous approaches to communicating with healthcare professionals (e.g. messaging systems).

5. Anticipation of remote care (n=39):

"I had a speedy consultation. Sent photos in advance. A quick phone call and prescription sent to my local pharmacy. Saved me and the GP loads of time. This so should be the new normal." (April 2020)

> During the initial stages of the pandemic (March- May 2020), 76% (n=99) of comments in theme 2 were positive, compared to pre-pandemic (Jan 2018-Feb 2020, 41%, n= 53) and following the lifting of some restrictions (June-Oct 2020, 38%, n=49)

This theme accounted for 6% of overall tweets, and included views and attitudes toward remote care appointments before receiving such care. The majority (79%, n=30) of the tweets in this theme were posted since March 2020 and were often written in a curious or sarcastic manner, perhaps due to a lack of understanding of how a remote appointment would work.

Implications

- o Using Twitter data allowed us to examine the discourse on remote care over and the shifting attitudes of Twitter users at a time of rapid changes in care delivery when it would have been difficult to conduct primary research.
- The mixed attitudes toward remote care highlight the importance for patients to have a choice over the type of consultation that best suits their needs, and to ensure that the increased use of technology for delivering care does not become a barrier for some.
- The finding that overall sentiment about remote care was more positive in the early stages of the pandemic but has since declined emphasises the need for a continued examination of people's preferences, particularly if remote appointments are likely to remain central to care delivery.

"Baby's nurse appointment for her second set of immunisations has been turned into a telephone consultation. I hope they can deliver rotavirus and diphtheria/polio et al down the phone." (March 2020)

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