Perceptions of Fake news, misinformation and disinformation in the midst of the COVID-19 Pandemic: A qualitative exploration

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Abstract

Fake news and misinformation spread quickly and virulently during the height of the COVID-19 pandemic, potentially outpacing the spread of the virus itself across the globe. This study aimed to develop a greater understanding of how individuals make sense of and interact with information they suspect to be fake by exploring perceptions of information sharing on social media during the COVID-19 pandemic. Twenty-four participants (N_{female} = 14, N_{male}=10) took part in semi-structured telephone interviews during March – June 2020. Thematic analysis was guided by principles of Social Constructionism. Three themes were developed from the data. Firstly, participant interactions with information on social media were directed by the intention "Staying Social". Secondly, the role of social media and the uncertainty of the pandemic was framed as "a Perfect Storm for Fake News". Thirdly, participants framed interactions in terms of "fact-checking" with differing rigour in this process. The data demonstrated the complexities involved when it came to participants' experiences related to fake news and misinformation surrounding the Covid-19 pandemic. The results also highlight some of the key challenges faced when it comes to preventing the spread of fake news and misinformation, particularly from the online to the offline environment. The results are discussed in the context of strategies and frameworks that can aid in educating individuals about the dangers of misinformation.

Public Policy Relevance Statement

An understanding of individual interactions with misinformation on social media during a global crisis provides critical insight into reasons related to proliferation, understanding, and acceptance of fake news. This article presents a qualitative exploration of individual interactions with misinformation on social media during the early weeks of the COVID-19

pandemic. The results are presented alongside a discussion of potential approaches that could help prevent the further spread of misinformation in future crises.

Key words:
fake news; covid-19; pandemic; coronavirus; misinformation; disinformation; post-truth; social media

The term ‘infodemic’ was used to describe the surge in misinformation spread during the COVID-19 outbreak (Zarocostas, 2020, p. 676). A report commissioned in the first week of the UK national lockdown found 49% of individuals used social media to access news and information about Covid-19, with 46% stating they had seen false or misleading information related to the pandemic (Ofcom, 2020). The consequences of misinformation during this global crisis are far from trivial. Fake news has been shown to influence the misallocation of resources during critical incidents, (Vosoughi, Roy & Aral, 2018), as well as fostering feelings of inefficacy, alienation, and cynicism (Balmas, 2014). The more plausible fake news is, the more likely it is to undermine the legitimacy of established organisations (Sellnow, Littlefield, Vidoloff, & Webb, 2009). Thus, misinformation in the form of fake news may be a barrier to communicating essential information in the time of crisis. However, there is limited empirical evidence to illustrate how individuals perceive and make sense of information they encounter during times of global crisis, including the COVID-19 pandemic. Therefore, this study explored individuals’ interactions with information they believed to be fake during an infodemic crisis, focusing on the proliferation of fake news and misinformation on social media platforms.

Misinformation, Disinformation and Fake News.

A critical distinction between misinformation and disinformation relates to the intent behind its creation and sharing. Wardle and Derakhshan (2017) described misinformation as the process by which false information is shared, but no harm is intended, whereas disinformation is when false information is intentionally created and distributed with malicious intent. However, Wu, Morstatter, Carley, & Liu (2019) suggested misinformation could be used as ‘*an umbrella term to include all false or inaccurate information that is spread via social media*’ (Wu et al., 2019, p. 81). The intent and motive that drives sharing of misinformation can also serve to act as a categorising function. Unintentionally spreading

misinformation is driven more by a desire to inform friends on social networks about critical issues rather than having the intent to deceive . Intentionally spreading misinformation has the direct intent to deceive, and includes elements of conspiracy theories, rumour and fake news (Wu et al., 2019). Other researchers have argued that the link to deception is not always a feature of misinformation. For example, formats such as news satire and news parody are key examples where fake news is created for the purposes of humour and entertainment (Tandoc, Lim, & Ling, 2018). A social constructionist lens posits that individuals' understanding and interpretation of misinformation is drawn from the wider social context in which it is encountered, rather than simply the intention of the information source (Burr & Dick, 2017). Thus, categorisation of misinformation according to malicious intention may not reveal how this misinformation influences social practices, such as sharing the information with others, counteracting or contradicting the information, or adherence to public health measures.

Sharma et al. (2019) also argued that existing definitions around fake news were narrow and restrictive, both in terms of the type of information being referred to, and the intent behind the creation of the material. They defined Fake news as "[a] news article or message published and propagated through media, carrying false information regardless of the means and motives behind it" (Sharma et al., 2019, p. 111:4). Accordingly, we envisaged fake news as encapsulating multiple facets of misinformation and use the term as a catch-all to cover these key concepts given the clear overlap between terms. Accordingly, the current study explored multiple forms of misinformation in the context of the social reality in which they are received.

Social Media, Information, and Credibility

Social media can form a critical source of news-based information for many people. A US-based study highlighted 68% of adults used social media to find information about topical news stories (PEW, 2018). Additionally, respondents noted the information they had found on social media had not helped them in their understanding of news (Shearer & Matsa, 2018). A

Global Web Index survey suggested almost a quarter of US- and UK-based Facebook and Twitter users increased their use of such platforms during the initial weeks of the global pandemic (Globlalwebindex, 2020). However, where information is shared via social media, Merchant, Elmer, and Lurie (2011) noted it is often not possible to identify those who share newsworthy information, in addition to the challenges of assessing the accuracy of information. Thus, assessing the credibility of information sourced online is a fundamental aspect of digital literacy (Hargittai & Fullerton, 2010; Leu et al., 2007; Schwarz & Morris, 2011). Initial work (Fogg, 2003; Fogg et al., 2001; Fogg & Tseng, 1999) helped provide a theoretical stance from which to view individuals' credibility assessment of news sourced online. Four key heuristics govern credibility of web-based information assessments: Presumed Credibility (some sources are more credible than others, such as government owned websites), Surface Credibility (assessing credibility based on information source aesthetics), Earned Credibility (trust is established with a source over time), Reported Credibility (credibility is assessed objectively, through official certifications, etc.; Tseng & Fogg, 1999). However, this work did not consider the nuanced positions individuals may have when making decisions related to assessing credibility, particularly in the context of the global pandemic.

Decision-Making and Fake News

Decision-making processes can also be linked to fake news proliferation. Theories based in social cognition, including dual-processing theories, such as the Heuristic-Systematic Model (Chaiken & Trope, 1999; Chaiken, Liberman, & Eagly, 1989; Todorov, Chaiken, & Henderson, 2002), suggested that individuals assume two different modes of information processing. The systematic approach to decision-making leads the individual to explore all task-relevant information, whilst also making a comparison to previously stored knowledge. However, this process exerts a high cost, not only in terms of finite cognitive resources, but also time. Where individuals have severely limited cognitive resources, possibly due to the

complexity of the current task demands, they will turn to an alternative heuristic mode. This approach is non-analytical, where individuals focus on minimal information to make judgements (Todorov et al., 2002).

The *bandwagon heuristic* and the *endorsement heuristic* are two potential heuristics that could be linked to the proliferation of fake news on social media (Sundar, 2008). The bandwagon heuristic relies on the popularity of information within the social media network. Individuals use peripheral cues to select content based on the popularity of the information rather than the actual content of that information (Sundar, 2008). Greater popularity of posts in turn makes information more salient to users, and where posts are accompanied by numerous likes, shares and comments, they are in turn more likely to receive further attention (Lazer et al., 2018; Sundar, 2008). Tandoc et al. (2017) suggested this leads to a cycle facilitating misinformation spread. When employing the *endorsement heuristic*, individuals equate the notion of popularity with quality (Metzger, Flanagin, & Medders, 2010). Where other people have extolled the virtues of a particular website or piece of information, they are in turn more likely to accept this as fact without exploring the content in detail. This may be a mechanism active in online event reporting and information dispersal, with individuals more likely to agree and adopt information that has already been sanctioned by peers or other sources as correct. Here, individuals support their decision-making activities based on previous experience of *what should be correct* rather than checking whether the information is correct.

Aims and Objectives

The majority of research related to fake news and social media has been limited to theoretical explorations of how information judgements occur, and the use of automated systems to detect and stem the flow of information (e.g., Karimi et al., 2018; Ruchansky et al., 2017; Tacchini et al., 2017). However, research has revealed that much of fake news information sharing is inherently related to human behaviour (Vosoughi et al., 2018).

Therefore, it would be beneficial to develop a greater understanding of how individuals perceive and interact with potentially fake news. The current COVID-19 pandemic offers a unique, albeit unfortunate, opportunity to explore how individuals interact with fake news and misinformation first-hand. Thus, this study aimed to explore the social context in which individuals perceived and interacted with pandemic-related, potentially inaccurate information on social media in the initial weeks of the COVID-19 pandemic. Our objectives were to develop a greater understanding of how individuals make sense of and interact with information they suspect to be fake.

Method

Design. This qualitative study design was suitable for inductively exploring individuals' interactions of the underexplored fake news infodemic. The design was informed by constructionist epistemology, driven by the social constructionist theoretical framework (Burr, 2003), and was applied to the data analysis using Braun and Clarke's (2006) thematic analysis, which allows a structured approach to data analysis within the framework of our guiding theoretical principles (Braun, Clarke, & Weate, 2016). Data were collected using telephone interviews conducted during March to June 2020.

Participants. Calls for participation were posted to social media platforms. Participants were asked to self-identify as suitable for participation if they were daily social media users who had encountered misinformation or information that they believed to be false during the COVID-19 pandemic. Participants were incentivised with a £5 voucher for participation.

The study recruited a sample of 24 participants (14 women and 10 men). The average age of the sample was 25.44 years and ranged from 18-56 years.

Procedure. After responding to social media recruitment adverts, all individuals were emailed an information sheet and consent forms. As the UK was observing strict social

isolation rules at the time of the study, telephone-based interviews were considered an appropriate and minimal risk approach to elicit in-depth data suitable to the study aims.

Telephone interviews were semi-structured, using a schedule developed to probe participants' interactions with information about COVID-19 on social media (see supplementary material for full list). All participants were debriefed following the interviews. Interviews were conducted by two experienced qualitative researchers. Interviews lasted an average of 19.77 minutes (range = 9-45 minutes) and were digitally recorded.

Data Analysis. Interview recordings were transcribed verbatim. Inductive thematic analysis provided a six-step framework for analysis which was integrated with Social Constructionist principles (Burr, 2003) informing coding and theme development. Thus, analysis was led by a focus on the interactional elements of the data and examining the social constructions in participants' accounts. Further, analysis took the form of six steps: familiarisation with the data; generation of initial codes; searching for and creating themes; reviewing themes; refining and naming the themes.

Data analysis was conducted by the two interviewers and a third experienced qualitative researcher. The team followed the coding steps together and double coded three interview transcripts to ensure the coding and theme development followed the same epistemological logic.

Results

All participants had encountered information about COVID-19 on social media and information which they believed or suspected to be false. Three overarching themes were developed during our analysis, illustrating how participants framed the information and their interactions with it. The themes are presented with subthemes which show the main properties of participant interactions. Specifically, interactions with fake news on social media were influenced by participants' social positionings in *Staying Social*, by the perception of the online

space in *A Perfect Storm for Fake News*, and by their understandings of how to verify evidence in *Fact-Checking*. Table 1 provides a summary of the themes and subthemes, and the following sections use selected participant quotes to support the presented findings. Participant quotes are presented with a unique participant identification number, their gender, and age.

Table 1: Participant themes and subthemes

Theme	**Subthemes**
Staying social	Solidarity on Social Media
	Protecting Mum & Dad
	Sharing in Personal Networks
	Distancing oneself from fake-newsers
A perfect storm for fake news	A chain of opinions
	Information contagion
	Curating Social Media
Fact-checking	Triangulating evidence sources
	Trusting and mistrusting implicitly
	Common sense judgements

Theme 1: Staying Social

Social media networks acted as a lifeline for staying social during the pandemic, and were framed as necessary for social connection and interactions with information. Information was shared to enhance the positivity of the online social network, to protect others, and to fight false information on social networks. Further, participants framed themselves as good information sharers in contrast to the image of people who share fake news. This insight highlighted a sense of superiority or a "right" way to share information that could potentially be erroneous. The social drivers of information contagion are explored in more detail in the subthemes *Solidarity on Social Media, Protecting Mum and Dad, Sharing in Personal Networks,* and *Distancing Oneself from Fake-Newsers.*

Solidarity on Social Media

Most participants described their main use of social media as not for information, but to feel less distant from others during lockdown. Some participants needed to mitigate their own loneliness, and most expressed a wish to stay connected with social distancing from friends and family online. Social media was also perceived as a form of entertainment. Staying

in touch with others was also a way to pass time, alleviate boredom, and promote positivity. Connecting with others elicited a sense of solidarity regarding the shared experience of living through COVID-19, and the ability to see posts and photos via social media was described as a reminder that participants were not alone in the situation.

> *"I think social media is really helping us stay connected as well, even just something like a funny TikTok video or a cute photo of a kitten on Instagram or just a feel good story about the guy who was walking the hundred laps on Thursday. I think if we don't have access to that, it would have been personally harder to cope. And I think that because it makes you a bit less lonely because you still have access to other people indirectly."* ***P11, Female, 31yrs***

Many participants viewed social media platforms as a convenient means to supporting their close networks through the challenges of the pandemic. Many participants chose to contact friends and family via social media as opposed to calling or texting. Some participants used social media apps to "check in" on friends and family, and this could be simply reading other individuals' posts online, and sharing information publicly to networks and starting conversations in more private online spheres. Thus, social media platforms' role in sharing news was perceived to have good intentions, and created an atmosphere of people looking out for one another.

> *"I think the sharing of good news, see communities coming together, my own community coming together and supporting each other has a really positive effect, I think that there will so much good that comes from this (…) I think the whole sharing and support of each other and looking out for each other is one of the most positive things about the pandemic"* ***P7, Female, 27yrs***

Protecting Mum & Dad

All participants encountered news or information updates about the pandemic via social media. Participants also described instances in which they shared information found on social media for the benefit of others. In justifying these actions, participants explained that they tried keeping their family members informed to protect them from COVID-19. For instance, one participant shared instructions on how to use a face mask, and another participant received instructions from a family member on how to ward off the virus using onions. Participants framed this familial information-sharing as well intentioned, although not always accurate. There was a compulsion to ensure that loved ones were well informed about the virus that was driving some information sharing.

> *"interviewer: when you have to have received those [social media sourced] information did you share it more widely within your social group at all?*
>
> *P14: Erm the stuff I believe it was right I did (...) just to update the family so they know"* ***P14, Male, 22yrs***

Almost all participants referred to a parent or parental figure when they described their need to protect family members. Parents were commonly drawn on as examples of individuals who did not understand the pandemic, or who misunderstood information shared via social media about the pandemic. This meant that most participants described having necessary conversations with parents in which they tried to better inform them about events of the pandemic. The participants' framing illustrated an implicit assumption that higher age or unfamiliarity with social media might make an individual more likely to believe fake news. Participants also explained that, whilst they did not challenge many other views about COVID-19 information, they were commonly drawn into challenging conversations with parents. These familial networks were a key site where social media-sourced information moved beyond online platforms and into everyday conversations.

“ my Mum bless her has been, has been, posting the RIP Boris [UK Prime Minister Boris Johnson] (…) she’s like, but it was on Facebook, and she’s quite new to Facebook, but it was shared, (…) I am like Mummy, look on the news, and she’s like oh, that’s not very nice, it doesn’t saying anything about it, and I am like, Mum, that’s because he’s not dead.” ***P4, Female, 25yrs***

Sharing in personal networks

Many participants avoided sharing information publicly on social media, but cited examples of sharing news and information within perceptually more private online spaces, such as private WhatsApp groups or other messaging applications, or live conversations in homes, by phone, or in live gaming chats. Private conversations could take place with people they believed would understand them, and there was a greater opportunity to explain the information they shared in contrast to public information sharing via a social media post to a wider audience, which lacked nuance and could invite conflict.

“on the Internet, unless it's a private conversation, I will not share this information. I will not tweet about it. I will not do a publication about it. That's, I keep that on a, in individual to individual level (…) I know my friends. I know what they're saying. I understand the context. But that's because it's a personal conversation. But If you take away the context, it changes the meanings sometimes” ***P2, Female, 25yrs***

The spread of news to personal conversations was not always welcomed, and some participants did not want to be exposed to misinformation about the pandemic. Participant 5 received conspiracy theories and news shared by their landlady and actively asked for this information sharing to stop. Furthermore, private discussions sometimes led to feelings of frustration where participants disagreed with interpretations of information. For one

participant, private discussions about COVID-19 information found online led to a ban of COVID-19-related discussion in their household.

> *"(..) with my Mum I am like oh yeah what was the study methodology or just because its an association it doesn't mean that it necessarily a causation sort of thing and she gets really annoyed with me, erm so I try to challenge stuff like that, erm yeah but then eventually I think it gets so frustrating that you are just like, I don't want to talk about it anymore so I like I had a ban on my house hold talking about it [COVID-19 news]"* ***P1, Female, 21yrs***

Distancing oneself from fake-newsers

Most participants in this study went to great lengths to emphasise they were 'not the type of person' who shared or commented on fake news about COVID-19 appearing online. This rhetoric amongst participants revealed that they were positioning themselves as different from people who shared and posted newsworthy information. During the interviews, participants emphasised their online character as non-confrontational, avoiding conflict, and not spreading negativity. Similarly, some participants feared that commenting publicly could have a negative impact on their wellbeing. A more favourable action was to scroll through comment sections or to anonymously report posts perceived as misleading. There were two instances of participants who recalled commenting on information shared about the pandemic, which participants perceived as "good" comments, and contrasted their behaviours with a description of negative commenters, illustrating the participants were better in comparison to other commenters.

> *"I'm not the type of person to comment on public posts and almost berate people into arguing, mainly because I'm not a confrontational or very argumentative person"* **- *P12, Female, 26yrs***

Participants positioned commenters as negative or rude individuals with potential negative intent. Descriptions suggested commentators were intent on scaremongering or "gaslighting", describing manipulative behaviour. Further, commenters were viewed as encouraging poor behaviour and creating a cycle of negativity in comment sections. Some participants went further to position commenters as "odd" individuals with motives that they would not be able to understand. Thus, participants removed and distanced themselves from comments and discussions by blocking individuals or ignoring comment sections in news items on social media.

> *"sometimes I would [comment on social media], but I would not say to somebody you bloody idiot or are you thick or anything like that, no, I wouldn't do that at all, I would just say no I disagree with you I think you should maybe consider looking at the following location maybe"* ***P6, Male, 56yrs***

Theme 2: A perfect storm for fake news

Participants framed the spread of information and fake information via social media as a culmination of unique factors related to the climate of social media use during lockdown, and the paucity of knowledge surrounding the COVID-19 pandemic. Fake news was described as negative, frightening, and dangerous. This malevolent caricature revealed implicit assumptions about perceived risks of social media during the pandemic for exacerbating poor mental wellbeing. Features that made the perception of a perfect storm are examined in the subthemes *A Chain of Opinions, Information from All Directions,* and *Actively Becoming Passive.*

A Chain of Opinions

Social media networks were framed as an ideal setting for a rapid, unedited spread of negative information, which was frightening or inferred blame, including statistics of the number of deaths recorded from COVID-19 and mishaps by government officials and members

of the public during lockdown. Several participants provided different explanations for why negative information was so easily shared in a chain, e.g., bad news or negative pieces were shared amongst peers as opportunities to complain about the state of the pandemic, the government, or members of the public. Additionally, negative or bad news triggered fears and anxieties of others, leading to information being shared by and to them to protect loved ones. Emotional reactions to the negative information, whether in humour, frustration, or in worry, led to the information being shared.

> *" like WhatsApp chain messages that I get sent and I'm just like I think sometimes people just panic they don't actually read it they kind of send it before they actually have read the information themselves they think they're trying to protect other people instead but when you actually read it this information is really wrong like it just takes one person to start a chain with all wrong information and then just spread it around the whole country"* ***P14, Male, 22yrs***

Several participants attributed the ability to share opinions on platforms as the riskiest element of social media. This view was common across the youngest participants, who believed that opinion sharing conversations increased the likelihood of misunderstanding spreading through networks. Indeed, these participants were less likely to identify their Facebook usage as this was identified as a setting both for sharing opinions and used by "the older generation". It was the view of this predominantly young adult sample that the older generation alluded to parental figures, who were commonly blamed for being a target and a cause for spreading false information on social media. Moreover, these participants were uninterested in sharing opinions about the pandemic, and spent their time using specific social media platforms on which opinions are not easily shared, such as Instagram, Snapchat, and YouTube.

"Facebook is like an older generation thing, like me, 20, and my friends who are like 19 or 21, we all kind of use Instagram and Snapchat, but the older generation seem to use things where opinions can be spread much more easily…no one really posts their opinions on Instagram or anything but on Facebook you can share it with one click and everyone sees it, and I think that definitely is a way that misinformation spreads." ***P22, Male, 20yrs***

Information Contagion

Most participants utilised an array of information sources during the pandemic, and these often converged on social media. Sources included government broadcasts, newspapers with an online presence, and discussions within social networks. On the one hand, several participants appreciated receiving information from various sources as they were motivated to be informed about COVID-19. On the other hand, several participants identified the extensive amount of information caused further confusion about the illness. For instance, statistics about the number of COVID-19 cases were cited differently across news sources. Government broadcasts were perceived as complex, using long words and difficult concepts, creating the impression that information was simultaneously unavoidable and complicated.

"I think in a way it has made things worse, just because it does make people quite anxious, especially when you kind of stop watching TV because it's making you quite anxious about everything. Then you go to your phone and its basically exactly same thing all over again" ***P25, Female, 19yrs***

The constant nature of COVID-19 information had an emotional impact for some participants. Participant 23 described information across multiple media as a "bombardment" to emphasise the overwhelming nature of pandemic-related information. Furthermore, the

emotions associated with this time for all participants were described as panic which could be spread in a 'contagious' way via social media. This contagion metaphor was extended when participants described seeing the movement of both true and false information via different platforms. For instance, it was common for participants to witness information spreading from Facebook to WhatsApp.

> *"social media is such an easy platform for people to spread panic and also I think emotions can be really contagious over social media, so when everyone else is panicking and feeling really sad, it's easy to read that and to feel that yourself."* ***P1, Female, 21yrs***

Curating Social Media

Several participants adapted their social media use to reduce the amount of news they were exposed to. Curating content was possible on various social media platforms. It was possible to follow or unfollow selected accounts who act as news "sources". Rather than following news sources directly, some participants placed a greater emphasis on receiving news shared through others via posts, shares of news, and retweets. Further, individuals used different social media apps for different purposes or, in one instance, stopped using a platform completely after receiving COVID-19 content they disagreed with, illustrating a more passive consumption of news, with an expectation that any "big" or important news story would be shared to them by others.

> *"I'm going to hear about it one way or another, and sometimes its through social media, sometimes its through more official sources and then I will sort of Tune into the news"* ***P5, Female, 26yrs***

When managing information, several participants explained they aimed to simplify and avoid mistrusted sources. One participant focused their news intake on one social media

Instagram account, which presented simplified versions of the UK government updates through infographics and videos. Another participant described how his father focused on simplified and intuitive Facebook-shared information, whereas complex government information was perceived as untrustworthy. Thus, participants' perceptions of information appeared to be influenced by their knowledge of complex healthcare information, their ability to comprehend the news, and their pre-existing trust in organisations including the national government and health services. Moreover, utilising these simplified information sources had a reassuring pay-off for these select participants. However, the participant watching his father consuming online Facebook information believed only accessing one media source had detrimentally influenced his father's behaviour during the pandemic.

> *"… [P13's Dad] will be like: No, I saw it on Facebook, they are all profiting from this. (…) But when you have someone that they will only trust a very small section of the media they are exposed to and they will disregard other media, you have someone who finds it really hard to change their mind about something. I'd say I definitely can see the effects of that. My dad is probably more nonchalant with social distancing and things like that as a result of being exposed to social media which criticises the government's efforts"*
>
> ***P13, Male, 18yrs***

Theme 3: Fact-checking

Social media played a role within most participants' fact checking processes about the virus. Participants drew from personal strategies to assess trust in information, and to decide which actions they would take once they had verified information. There were different levels of engagement with verification processes. Some participants described limited fact-checking, whereas others spent considerable effort assessing information. Nonetheless, all participants

described having a process by which they determined and verified information about the pandemic, and these processes are explored in *Triangulating Evidence Sources, Trusting and Mistrusting Implicitly, and Common Sense Judgements.*

Triangulating Evidence Sources

Many participants assessed whether information was true or untrue by comparing facts across evidence sources. For many participants, it was difficult to separate non-social media news sources from social media-shared news. Many formal information sources including newspapers or government departments-released information on social media were shared by social media users. Thus, when participants described seeing potential fake news, they were often readily able to use social media to check the information against what they had seen in government broadcasts, print media and print media websites or via individuals posting and commenting on the news.

> *"you kind of have things like Matt Hancock [UK Health Minister] saying: Oh by the way, cancer treatments are not being delayed. They are going ahead. And quite a lot of people were like: Well, actually my cancer appointment has been cancelled or my chemo appointment has been cancelled, and that makes you (…) think: You know what, the things that are happening on the ground are very different to what policy makers and politicians say, and consequently the media report on it."* ***P11, Female, 31yrs***

When participants described their attempts to verify information, they commonly used comments posted on social media to understand different perspectives on the topic. Many participants described looking at comment sections on social media to gain an overview of arguments' polarisation, and to decide which side of the argument they agree with. One counter-example of this was participant 22, who had identified that comment sections were

used to form opinions. This participant rejected the social media platform with comment sections to achieve some independence with his own opinions.

> *"I once saw a post it was a guy trying to say if you if you have this home remedy um it'll kill the virus and stuff like that and it's like well yeah okay but then in the comments section is where you find how reputable it is and people start attacking and saying you can't be sharing this information you know there could be home remedies and stuff like that to kill the virus (…) if it was the case it would be common knowledge"* ***P17*****, *Male, 25yrs***

Trusting and mistrusting implicitly

For COVID-19-related information, many participants placed a high value on the experiential information relayed by qualified medics, other healthcare professionals, and patients themselves. For participant 14, this perception extended to trainee nurses, whom the participant followed on social media for information on lockdown procedures. Similarly, many participants accessed professional medics' and expert experiences through social media accounts or blogs shared about the virus. Participants portrayed these individuals as sharing information "on the ground", representing the truest accounts of what to do during the lockdown and what was occurring with the illness. This perception was contrary to the triangulation verification processes held by participants and revealed an implicit trust for medics working with the virus.

> *"… what you get is again this non-fake news perspective on what's happening. This is an actual doctor. He's got a massive presence online. So he's a doctor in the UK and there's a doctor from the US. So I've been enjoying reading their commentary. So I think that helps break the sort of the daily news stuff, in a bit more reliable and trustworthy because they're*

actual doctors. They are not politicians. They don't really have an agenda and because they're trusted in the sense that they've had this presence for years now" ***P11, Female, 31yrs***

For some participants, trust in information posted on social media was bound closely to trust in government sources. Participant 15's trust in information supplied by the government had increased because of the pandemic; the virus created a situation where the government was unable to lie about the scale and impact of the virus. However, other participants perceived the government and information through the lens of their prior beliefs and political affiliations. Where participants held strong negative views about the government, they also expressed mistrust that the government would share information, which was complete or honest. Participants also referred to newsworthy incidents regarding governments, which also negatively impacted their trust towards the information they produced. For instance, a UK government chief advisor scandal negatively impacted one participant's engagement with information from government sources. Many participants also referred to US President Donald Trump as an example of government bodies promoting fake news. In these discussions, participants referred to real-world news having an overwhelming presence on social media. Social media acted as a conduit to receiving this information and impacted individuals' trust for the formal information broadcasts.

"I saw articles where China have made coronavirus to use as a weapon and Donald Trump is backing that opinion and then lots of Americans commenting on the post, promoting him. But then you get, there's one saying about how the government is sitting upon a bucket of money and forcing the NHS staff on the frontline without providing the required PPE, just loads of

stuff saying there's help out there, but the government for whatever reason not accepting it or purposefully ignoring it." ***P12, Female, 26yrs***

Common Sense Judgements

Almost all participants described instances where they made common sense judgements about the validity of coronavirus-related information. This was often expressed colloquially as spotting perceived "wacky" claims, treating certain pieces of evidence or sources "with a grain of salt" or simply believing information to be true or untrue. Further, this judgment was described both by participants who used a lengthy triangulation process for verifying information and those who had a lesser interest in fact-checking information. Where participants illustrated common sense judgements, they were often made in reference to prior scientific knowledge or to what they believed relevant to themselves, their families, and friends. For instance, participant 14 described receiving advice to eat food with particular pH-values to protect against the virus, but the values quoted did not fit their prior knowledge of pH values.

"I just try and use my brain and just try and, you know, is it common sense, (…) I to sort of verify using my intelligence as it were, (…) does it fit in with what you would expect, (…) I sort of base it on the news and everything and I think well, the news isn't always that particularly clear cut is it, so, whilst it might not be fake news as it were, it's not necessarily always the whole truth" ***P4 , Female, 25yrs***

Several participants revealed they would be more likely to share information to their private social groups once making these common-sense judgements. Indeed, as two participants noted, they firstly made the decision of whether information sounded true or untrue based on a common-sense judgement. If the information was initially judged to be true, they

shared it with their family. Several participants also enjoyed sharing information which they perceived to be particularly untrue, wacky, or ridiculous to joke with friends. Moreover, if the information sounded unlikely, participants sought further information to verify the claim. Thus, whether shared for humour or to inform, a quicker, common sense, or snap judgement often resulted in participants sharing news, which was not verified in any depth against other sources.

> *"I will share it with family and friends if I believe it to be true if I think it's false I typically try to verify the source but if I believe it less likely chance of me actually verifying it"* ***P15, Male, 27yrs***

Discussion

The present research aimed to examine the social context in which social media users make sense of and interact with information they suspect to be fake. The results suggest that the Covid-19 pandemic was a perfect storm for fake news. Firstly, social media was important for staying social and participants illustrated a psychological distancing from people who were perceived as generating debate about news and fake news. Secondly, the active online environment placed individuals into a chaotic world of information sharing, both factual and inaccurate. Thirdly, participants were aware of and had some procedures for fact-checking, but common-sense assumptions and biases also impacted on information appraisal. The following will examine themes regarding false information appraisal during the COVID-19 pandemic.

The role of social connections and social judgements in the spread of fake news.

Our first theme revealed information was judged on its ability to support social connections. Information was potentially protective in the pandemic by offering new insights and by sharing amusing and positive updates. This judgement was sometimes made before assessing the validity of information. Thus, this social element to information assessment offers an important and novel insight into information processing heuristics which have hitherto not

been accounted for in models of decision-making (Chaiken & Trope, 1999; Chaiken, Liberman, & Eagly, 1989; Todorov, Chaiken, & Henderson, 2002). Moreover, this study revealed choosing to share information was closely related to a moral judgement about the sharers' opinions. Outside of the pandemic context , information shared via social media has already been referred to as reflective of a "post-truth" era, where what matters is the sharing of influential individuals' opinions and belief systems rather than that of information (Al-Rodhan, 2017; Flintham et al., 2018; Oeldorf-Hirsch & Sundar, 2015). The present study offered an opposing position; for this sample of participants, what mattered was not to publicly present their opinions, but a desire to share information online in private, trusted circles. Personal networks appeared more significant when discussing fake news with individuals who participants had closer relationships with, and where levels of trust may have increased their willingness to disclose personal opinions openly. According to Beldad, de Jong, and Steehouder's (2011) theoretical framework for personal information-related behaviours on the Internet, individuals' information sharing can be viewed on a continuum, ranging from information privacy protection activities to complete disclosure. Thus, reluctance to engage in sharing their opinions on more public social media and a preference to disclose personal views on personal networks can be viewed as a function of privacy protection.

Sharing information on private networks presents a challenge to current strategies which attempt to reduce the spread of fake news. In 2017, Facebook reported plans to reduce the spread of fake news by using machine learning to detect fake news and fake accounts (Mosseri, 2017). However, the present study illustrated that sharing fake information is a social phenomenon facilitated by family groups and households, moving to the offline sphere. Future research is needed to understand how the discourse of false news and conflict between family members influences belief in the information.

Participants had strong negative judgements about people who share pandemic fake news on social media, i.e., 'fake-newsers', perceived to use Facebook, be older and having a lower education level. Notably, these were the commonly held beliefs by the present participants regarding people who share fake news, rather than a factual reflection of people who share misinformation. In line with social identity theory (Tajfel & Turner, 2004), the dynamics of 'otherness' came into play, whereby individuals differentiate themselves as the favoured 'in-group' from members of the 'out-group', who in turn become the target of discrimination (Abbink & Harris, 2019). Participants indicated they did not publicly engage with fake news, as this would have been perceived as poor behaviour and spreading negativity and engaging in unnecessary confrontation and conflict. It was further stated how easily comments could be misinterpreted on social media given the lack of physical cues in online interactions (Walther & Parks, 2002). Aspects of toxic online disinhibition (Suler, 2004) also come into play here, where individuals shy away from calling out fake news directly for fear of retribution in the form of flaming and trolling. Consequently, rather than actively engaging in social media discussions on news stories, participants decided to passively observe these. Such 'lurking' behaviours lead to the establishing 'private' knowledge through observation whilst the individual remains uninvolved in the background (Goriunova, 2017). Research suggests there are many 'silent' users on Twitter whose preference is to watch rather than engage actively (Gong, Lim, & Zhu, 2015), supported by the attitudes of many of the participants interviewed for this present study. It has also been claimed that social media has morphed from being a hot medium (requiring high degrees of interactivity) to becoming cool medium (facilitating consumption without the requirement of active engagement). According to McLuhan (1964), *"[a]ny hot medium allows of less participation than a cool one, as a lecture makes for less participation than a seminar, and a book for less than a dialogue*" (p.

25). Thus, our findings reflect changing styles of social media use exemplified by the pandemic but may stretch to other topics of news consumption.

Managing exposure to social media to inoculate against fake news.

The second theme depicted the struggles many participants encountered regarding information overload and an enhanced risk of encountering false information as individuals adopted the use social media as their main or only source of pandemic news. Some participants preferred the simplified versions of news feeds that appeared on social media news, related to the intuitiveness of presentation and the reassurance provided. This view was contrasted with those from official sources, such as the daily UK government updates, which were often described as being unnecessarily complex, lacked directiveness, and trustworthiness. In previous research (Marchi, 2012), young users were found to view social media news as more honest, authentic, and less staged, and they appear to question the concept of 'objectivity' adhered to in more traditional news media, such as television and radio, offering a compelling reason for why news consumption via social media is very popular. Half of the respondents to a recent Ofcom report (2020) have encountered fake news about the pandemic on social media, highlighting the importance of tackling not only the exposure to, but education about misinformation and fake news.

The paradox of social media: fake news and fact-checking.

The final theme revealed that social media was viewed as both a source of fake news and a fact-checking tool. Some participants used various sources to triangulate the trustworthiness of news stories. These included daily UK government briefings and international sources, such as those of the World Health Organisation, traditional print and broadcast media, and the respective organisations' social media channels. Such behaviours appear to have basis in one of the credibility-based heuristics presented by Fogg and Tseng (1999), i.e., presumed credibility. Participants also made 'common sense' judgements when

deciding whether to believe a news story, which can be considered 'ground level representations', denoting individuals' idiosyncratic representations of and beliefs about the world, driving their understanding and decision-making (Levy, 2017). In the present study, individuals sometimes relied on opinion leaders on their networks, such as "experts" in the form of medics', patients' and nurses' social media posts, corroborating with findings from previous work (Oeldorf-Hirsch & Sundar, 2015). These were perceived to be more trustworthy than the more curated government posts. The earned credibility heuristic plays a role in participants' judgements in these instances, irrespective of the individual presenting this information and their objective level of expertise (Fogg & Tseng, 1999). Participants' perceptions on the trustworthiness of official sources such as governmental ones were often tainted by their own political beliefs, leading to divergent views across participants regarding the level of trust they placed on the respective sources of information. This finding resonates with previous research on fake news and political leanings, particularly regarding the 2016 presidential election (Grinberg, Joseph, Friedland, Swire-Thompson, & Lazer, 2019). The research highlighted individuals were more likely to trust and share potential misinformation congruent with their political allegiances, and to discount information incongruent with it.

Limitations

As this small-scale qualitative study takes a social constructionist approach, it is acknowledged that the findings are grounded in the specific context of our predominantly young sample, and the nuanced context of information uncertainty at the beginning of the COVID-19 pandemic. This limits the extent to which we can generalise these findings to older populations and to other information-sharing contexts. Nonetheless, we have illustrated the complex social context surrounding managing potential misinformation and social media in times of uncertainty. Considering social media use prevalence, future large-scale research

should explore interactional behaviours with fake news and would be prudent to further explore generational differences in fake news engagement and trust.

Conclusions and Future implications

Our findings indicate that the coronavirus pandemic has acted as a perfect storm for fake news, with individuals using social media to stay social, engaging in some fact-checking and distancing themselves from people they see as "fake-newsers", or those who share fake news with their networks. News consumption on social media has transformed social media from being a cool medium to a hot medium where rather than actively engaging in content creation and sharing, many users choose to observe news stories as they unfold on their social media channels.

Based on the present research, there are several recommendations to minimise impact of fake news via social media. Researchers familiar with the impact of misinformation on the public in a pandemic context have suggested health care professionals educate the public, amplifying the support of relevant guidelines, and focus on targeting fake news support for clients with chronic health problems who are at increased risk due to their condition (Earnshaw & Katz, 2020). Additionally, there have been recommendations to increase research surrounding the use of social media in younger children and emerging adults (Dubicka & Theodosiou, 2020; Griffiths, Lopez-fernandez, Throuvala, Pontes, & Kuss, 2018). This in turn could serve to raise awareness of risk associated with unfettered or unguided use of social media and provide evidence-based guidelines for the use. Based on the present results, it is suggested that such work be extended to other generations, particularly as the main source of misinformation appeared to be older age groups. Moreover, social media conglomerates are now taking first steps to curb the spread of fake news on their sites. More needs to be done in the context of corporate social responsibility to protect consumers. A way forward is a multi-stakeholder approach, including the industry, clinicians, researchers, governments, and actual

users and their communities to create the evidence base for the impact of fake news on social media on behaviour and wellbeing, and develop guidelines and policies accordingly, including public awareness campaigns and strategies to identify fake news and curb exposure to it on social media platforms.

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