



‘People want to believe the truth but they don’t know what the truth is’: Health Beliefs, Health Experiences and Attitudes towards a Covid-19 Vaccine in Bradford

B Lockyer, L Sheard, S Islam, J Dickerson, R McEachan, KE Pickett, T Sheldon, J Wright on behalf of the Bradford Institute for Health Research COVID-19 Scientific Advisory Group (<https://www.bradfordresearch.nhs.uk/csag/>).

This report presents findings of a qualitative study into health beliefs and health experiences during Covid-19 and attitudes towards a Covid-19 vaccination. This report is to aid policy and decision makers in their planning and responses to Covid-19.

Further Information

www.bradfordresearch.nhs.uk/csag

For more information about the study contact: bridget.lockyer@bthft.nhs.uk

Executive Summary

Overview

Health beliefs and health experiences during Covid-19 and attitudes towards a Covid-19 vaccine were one of three topic areas identified as a priority for qualitative research in order to help decision makers in Bradford understand the social impacts of Covid-19 and assist their response. As a result, we conducted interviews with 20 people from different backgrounds and areas of Bradford between September and October 2020. Overall, participants in this study had been exposed to a multitude of different and often conflicting stories about Covid-19 and this had caused confusion and some distress to them and the people they knew. Both national and local misinformation and perceptions of/experiences with the health services during this time had fostered mistrust and reticence to use services. Exposure to misinformation had undoubtedly influenced some of the participants' hesitancy to have the Covid-19 vaccine when it becomes available, even if they knew people who had had Covid-19. It will be a real challenge for decision makers at a national and local level to combat the sheer volume of misinformation and the complex and emotive ways people engage with it.

Recommendations based on findings

- 1) It is important to systematically monitor misinformation circulating on social media. This is taking place ad hoc but could be undertaken more systematically through a central contact or group such as the CSAG Community Soft Intelligence group.
- 2) Misinformation and fake news should be countered quickly and locally, using conventional and social media. These messages should feature trusted community leaders and networks, and be in multiple languages. Contact points (web-based) should be made available to provide advice.
- 3) Hesitancy around vaccine use appears to be rooted in misinformation and anxiety and there is a need for this to be mediated by clear, honest and responsive information that is sensitively framed and non-judgemental. An on-going series of webinars (with Instagram and FB live streams) led by community, faith and youth leaders should be held to listen and understand people's concerns and provide open and honest answers that recognise areas of uncertainty.
- 4) A regularly updated summary of misinformation/fake news arguments in circulation should be made available as FAQs with responses for all NHS/LA/VCS staff and community workers.
- 5) The study demonstrates the emotional impact of misinformation and the capacity of people to hold contradictory views at the same time. The stress of holding multiple viewpoints and the anxiety that this causes, only served to amplify the anxiety caused by the disease itself. Awareness about the impact on mental health should be raised in services providing care and support and information and strategies provided to staff to reduce anxiety.
- 6) Many people put greater trust in media from their country of origin and exposure to different and sometimes conflicting advice exacerbates mistrust and confusion. News on this media should be monitored as part of 1) and efforts made to harness these channels in press briefings and communications strategies.
- 7) It is important for GPs and hospitals to strengthen their messaging that they are open for other medical problems despite Covid-19 and that their users will be as safe as possible.
- 8) There is a loss in trust in health professionals and NHS organisations. Identifying key community influencers and role models and equipping them with the resources and arguments to counteract misinformation, such as in the Covid-19 Lead programme, is crucial.

Introduction

Bradford's Covid-19 Scientific Advisory Group was formed in March 2020 to support policy and decision makers in Bradford and the UK to deliver an effective Covid-19 urgent response and in the longer term, to better understand the wider societal impacts of Covid-19. As part of these longer term aims, it was decided that priority topics would be explored through qualitative research. These topics were identified through rapid consultation work carried out in April 2020 and involved three different sources of information:

- Speaking to nine members of Bradford's District Gold Command. These were brief 15-20 minute phone calls to assess what their priorities were for qualitative research in Bradford in response to Covid-19.
- Analysis of the first 350 free text responses to the Born in Bradford (BiB) Covid-19 adult questionnaire conducted in April 2020 during the initial weeks of lockdown to assess what the main concerns were for parents within the three BiB cohorts.
- Community researchers collected soft intelligence from 12 people considered influential within community settings in Bradford.

From the above consultation exercise, three priority topic areas were identified, which included what we labelled as 'Health Beliefs'. The aim of the Health Beliefs study was to understand people's relationship to health services and health information in Bradford District during Covid-19, focusing on attitudes, trust, access and experience. The consultation exercise had revealed that people were avoiding accessing health services for fear of catching Covid-19 and/or burdening the NHS, and this was evidenced by the marked reduction of A&E attendances at BRI during the spring lockdown period. We had also found, particularly through the soft intelligence work, that there was a lot of misinformation surrounding Covid-19 being shared, usually via social media, and this included scare stories about the BRI and Bradford health workers. As this research was being developed, it became increasingly apparent that local, national and international conspiracy theories and misinformation around Covid-19 were still gaining a lot of traction within Bradford, causing much distress and confusion. With the Covid-19 vaccine trials beginning in Bradford and with the hope of an effective Covid-19 vaccine on the horizon, it was important to explore how the spread of this misinformation and other factors might impact on vaccine uptake within different communities in Bradford.

Methods

In order to explore this complex topic in depth, we conducted semi-structured interviews with 20 people in different communities and different areas of Bradford. As a starting point, we contacted some of the 12 community influencers who were consulted in April (as part of the community soft intelligence work). Members of the wider research team had established prior links with them and they are also trusted within their communities. We started with nine people (three people from each major ethnic group - South Asian, White British and Eastern European), and then used snowball sampling (where a participant refers people they know to the study) to recruit further participants. Due to social distancing measures, interviews were conducted over the phone and were all conducted by the lead researcher in English (if necessary, interviews would have been conducted in Urdu/Punjabi, but this was not

requested). The interviews were transcribed with identifying information removed and participants' names pseudonymised.

11 women and 9 men participated. Their ages ranged from 20 to 85 years old, but most were clustered between 25 and 54 years old. In terms of ethnic group, they identified as Asian or Asian British-Pakistani (7) Asian or Asian British-Indian (2), Asian or Asian British-Bangladeshi (1), White British (6), White -Eastern European (3) and White Gypsy or Irish Traveller (1). The participants lived in nine different Bradford postcodes: BD3, BD4, BD5, BD7, BD9, BD13, BD14, BD18 and BD21, although there was a cluster of participants from BD5 (7). This was a result of the snowball sampling method and also because at that time there was a high number of Covid-19 cases in BD5 compared to other parts of Bradford which we thought would be an interesting context for the interviews. We asked about their jobs and volunteer roles - due to the sampling strategy, around half the participants were in paid and unpaid community roles and overall the participants tended to work in lower-paid occupations e.g. retail worker, carer, beauty therapist etc.

For the analysis, a subset of interviews (3) was analysed independently by two experienced qualitative researchers, who came together to identify commonalities in the responses and discuss how these could be ordered into loose themes. These were then used and refined by the lead researcher to analyse the remaining interviews.

This is an exploratory piece of work which aims to greater understand people's beliefs around Covid-19. It focuses on how their health experiences and backgrounds have influenced how they make sense of health information and who or what they trust. Covid-19 has a rapidly evolving story and this has been an evolving piece of work. We carried out the research in September and October 2020 when Bradford and the UK were going into a second wave of cases, but before announcements about the promising vaccines were made. This report is therefore a snapshot of people's views and beliefs at that particular time. It is our view however, that this research offers valuable insights into people's views about health and decision making processes throughout the pandemic.

Experience of Covid-19

People's experiences of Covid-19 were mixed. None of our participants had ever had a positive Covid-19 test, although some suspected they might have had the virus in February/March before there was widely accessible testing. About a quarter of those we spoke to did not know anyone who had definitely had Covid-19. On the whole, these participants felt quite insulated from the virus, but were generally still worried about catching it and reported that they were taking safety precautions. The remaining participants had friends, family members, colleagues, and neighbours who had tested positive for Covid-19 and had experienced various symptoms and outcomes from being mildly ill to hospitalisation and death.

Finding out that someone they were close to had been very ill with Covid-19 did appear to make the virus more real. One man described the impact of hearing his friend struggling to talk over the phone because his breathing was so poor. He argued that if other people he knew could have heard how ill his friend sounded they would not be so dismissive of the virus:

I mean obviously I heard him when he was really, really ill and they didn't hear him on the telephone whereas I did and so they won't probably believe him until you know, if I recorded and played it back to them and say look, this is what happened to him. (Tariq)

The implication here was that before he directly heard his friend's suffering, he himself was less concerned with the virus. He felt that unless people in his network had had a similar experience, they were unlikely to believe how seriously ill his friend was. Indeed, Tariq described this friend as someone who had previously claimed 'this virus is fake' and had continued to give people handshakes and hugs, until he became unwell. After he recovered, this friend was attempting to spread the message that it was real and it was very serious, but Tariq felt this was often falling on deaf ears.

Another participant, who worked in a community setting, described how his friend's experience with Covid-19, which involved a coma and a very long recovery, had helped him realise the seriousness of the virus and how he used this story to convince others:

Because I have had a family, a family that I'm working with, [who said] "Don't worry, it's not true, Covid does not exist," and I said, "I wouldn't... I was thinking the same as you but since I met my friend who has been admitted into hospital, who was in hospital with Covid five months, now I know that it does exist." (Kristof)

This proximity to Covid-19 through friends and family members brought the virus close to home, but as discussed below, it often affected views and decision-making around Covid-19 in unexpected ways.

(Mis)information and Trust

The avalanche of information surrounding Covid-19 had left many of the people we interviewed feeling overwhelmed and confused. They reported using a wide variety of sources of information about Covid-19: television and radio (UK news stations including BBC, Channel 4 and Sky and also news stations in Pakistan, India, Slovakia and Poland), online national newspapers (in the UK and elsewhere), the Telegraph and Argus newspaper, the NHS website, the Bradford Council website, YouTube, Facebook, Whatsapp, Twitter, Google and medical journals. Some participants said that they had made a decision to stop or limit their reading or watching of news about Covid-19 because it was too distressing and they could not make sense of it.

All the scary numbers and everything's so bad and you will die, probably, and something like that. So I've seen very, like not very, a lot of like cases, videos showing how persons are erm... ill and going through all this. And I've seen on Facebook as well like advisors from our Government. And, yeah, it was very scary [laughs]. At the moment, I just, like distance myself from this, I don't want to hear anything about it. (Sofija)

When faced with apparently contradictory information, they felt unsure about which sources they could trust and what to believe, as this participant discusses:

I couldn't even put the news on, there were that much information flying about, you didn't know what to believe. Didn't know what information were right and what were wrong. There's like all WhatsApp groups and things, there were just stuff flying

around on that and videos and all sorts and it was just like awful, what is the truth, what's not, how do you and it's like I've always been a believer that obviously don't watch YouTube, you know, don't believe anything as such, you know, NHS, you know, your GP, your NHS, Government. Oh, it were all just contradicting. (Jackie)

Participants felt the government response had been particularly bewildering. No-one we spoke to seemed to be staunchly anti-government and they did express a desire to follow the rules and restrictions, but they also felt that the national government communication had been poor and their decisions were contradictory or hypocritical:

The government aren't being clear and they're saying one thing but then they're saying other things, and basically what they're trying to do, they're trying to please everybody all of the time, it doesn't happen. (Hasan)

As time went on it's like they just don't care and I understand you know, it's hard you know, England was obviously running out of money but I think really they're just more bothered about money right, I don't, I believe it's nobody really should be going back to work or opening schools or shops, realistically yeah, people need, well everybody needs to because of money, but really I don't think it's safe, I think it's just going to all blow up again (Rebecca)

A turning point for participants seemed to happen when the news around the Dominic Cummings scandal broke in May, which many felt showed that there was 'one rule for them and one rule for us' (Tariq). Bina described how she was trying to do everything right only to find out that people in the government were not:

And then the whole Dominic Cummings thing and I just thought, do you know, you need to kind of lead by example...you're like jumping from one hoop to another, you're like, 'yeah-yeah', but you know, are you really following the guidelines, you're telling us to do it but are you lot doing it, so that's been a bit of a kind of dilemma as well. (Bina)

Participants did acknowledge that the government was facing a very difficult challenge and wanted to trust them, but felt that they were not being honest and upfront with the population:

People want to believe the truth but they don't know what the truth is, because the people who ought to be giving the truth, the politicians, saying that they are following the science, aren't themselves following science. And I understand the politics of it, but for political reasons they are downplaying the number of deaths, for example. (Bilal)

There was also mistrust for some traditional news outlets that people felt were just the mouthpiece of the government:

I listen to Channel 4 news rather than BBC news, I find Channel 4 is impartial when they give you news and they challenge the government (Tariq)

The BBC World Service is fairly independent, it's more independent than say BBC News that we see in the UK, it's for the UK audience. And a lot of the news it's all sort of, it's dependent on what government is here and what they want to get across

and that kind of stuff, it's always biased in some way or another. And because you that I tend to use Facebook which is fairly, Facebook you can get different views on different people, there's groups like that are out there that give their point of view in relation to what they believe and that kind of stuff (Hasan).

From Hasan's point of view, bias could be moderated by engaging with more sources and a greater number of people, something which social media platforms offered.

This environment of confusion and mistrust was intensified for some people who were engaging with news sources from other countries. The governments in countries where some participants were born or that they had close connections to, such as Poland, Slovakia, Pakistan and India, were responding differently to the pandemic, and this affected how people viewed the UK government and the health information they were putting out:

From my community, like Eastern European people, I think most of them even don't have TVs or they don't watch English news (Sofija).

Compared to Slovakia for example when they started, everybody were advised to wear mask, compared to the UK they weren't encouraged to wearing masks, so they were contradicting each other, or who is telling us the best of truth. (Kristof)

So they were watching a lot of the news in their own countries, like Pakistan and India, and they were looking at that information and accessing that information which they could understand and then taking that on board and then I used to kind of like think, yeah, but that's not here, that's in Pakistan, this is what we're supposed to be doing here (Bina)

These participants, who worked with/in their communities, felt that one way to combat this issue would have been to have released more official health information in languages other than English, so that people could have understood the key message better:

The leaflet was kind of like just consolidating what was being said on the TV every day but it were just in written form. To tell you the truth, I honestly don't think if I'm talking about the Asian community, I don't think it was sent translated, so a lot of people will not have paid attention to that leaflet, so I think it will have been a waste of money in that sense on a resource really. I think they should have targeted like Asian areas and put posters up, I really do believe they should have done that in the languages that people could understand (Bina)

I think there is so much information about what should we do, or there are so many leaflets and it's everywhere, on the Facebook, on the Google, on, basically everywhere where I go. But sometimes it's so difficult to have information in our own native language for the rest of the communities (Kristof)

Amongst this perceived confusing picture from a multiplicity of information sources, social media stories about Covid-19 gained a lot of traction in the Bradford area.

Social media Covid-19 stories discussed by participants

National/International

- Covid-19 is not real, it is an effort to control society
- Covid-19 has been manufactured by China or other governments for control purposes
- Covid-19 is caused by 5G
- Covid-19 has been invented to make people use contactless payments so that the government can track individuals
- The Covid-19 vaccine contains a chip that will track individuals, stop them travelling etc.
- The Covid-19 vaccine will make people infertile and is an attempt to reduce the population, particularly targeted at people from BAME communities
- Covid-19 testing gives so many false positives that it is ineffective and you should not self-isolate
- Covid-19 exists but is not as virulent as the government says it is

Regional/Local

- If children test positive for Covid-19 during school hours they can be taken away into care and will not be able to see their parents until they test negative
- Health professionals at Bradford Royal Infirmary were injecting people with the Covid-19 virus, or killing people with Covid-19
- Bradford Royal Infirmary were inflating the numbers of people with Covid-19
- The health service was so overwhelmed that ambulances would not arrive in an emergency

These stories often overlapped and whilst some of them were national or international, others had a more local focus. The people we spoke to felt that the information on social media was not to completely trusted and would often say that they laughed at some of the stories that they encountered on WhatsApp and Facebook. Yet the sheer volume of them and that they were being shared by people they trusted proved difficult for a lot of participants to ignore. The participants described feeling bombarded at times with stories about Covid-19 in Whatsapp groups and one-to one messages, Facebook as well as texts and phone calls from family and friends. The conditions of the pandemic and lockdown, with people anxious and stuck at home, accelerated the spread of stories and the impact they had:

It got a bit too much on the internet, it was just too much, everywhere you look was just going, things going on, some are true, some are not true, so I kind of actually gave up looking on the internet, it put me off it because it was literally too overwhelming and you're already stuck inside, can't do much and hardly, you can't socialise outside with anyone, just your kids and you're so busy with that that you don't want to be really extra, taking extra room, so I kind of not, social media kind of things I didn't want to read from because sometimes you don't know if it's true and then it just makes you more scared half the time. (Ambreen)

Participants underlined how quickly news was responded to and information was shared via social media:

But with media, people don't know the research, the background and they just forward it straight away and then it just spreads like wildfire. (Tariq)

Most of the time it was actually links from people's statuses and WhatsApps and social media and then you know it links you to the website and stuff and a lot of the time it was those things. Up until now they still have it, people putting up on their, anything happens, straightaway it's everywhere and especially with Bradford, lockdowns and issues with the risks and stuff, everything goes on their social media statuses. (Ambreen)

The more controversial or dramatic the posts or videos were, the more they spread. It seemed that part of the reason why some stories took hold in Bradford is because the individuals in the videos were or were posing as people thought of as professional or respectable, such as a teacher, nurse or doctor. Being able to speak multiple languages also indicated higher levels of education and trustworthiness.

I think it's especially these messages through Facebook and through social media, and especially if they see like people from who speak English very well, they're listening or hearing these videos and they're thinking well if she's saying that she grown up here that would be true. (Kristof)

When they send their messages they're just so passionate the way they talk, they grab your attention and they've got you and the way they're speaking and the terminology they're using and they give you the facts and the figures and then you just get drawn and locked into it. (Tariq)

When participants talked about their interactions with conspiracies or false news they distanced themselves from them, referring to them as something they passively saw, were dismayed at or amused by, scrolled past or ignored. Yet their narratives revealed that their responses were much more complex. They described the dilemma of not knowing what to trust or who to listen to, and this meant they could not dismiss all of these stories entirely. They knew conspiracy theories and fake news existed and that they should avoid it, but it found it difficult to tell them apart from legitimate information, especially if it was being repeated over and over again. An example of this is an interview with Masood, who was very keen to stress he had a scientific education, read medical journals and that people who do not believe in Covid's existence were uneducated and less literate. Despite this, he still showed that he was not completely firm in his views after reading false information about the origins of Covid-19 and AIDS:

I'm still a little bit confused, like I was studying an article and they were saying thing that Covid is a man-made disease just like AIDS, so I'm still a little bit still confused, like is it a man-made or is it like an actual disease? Laboratory-made you can say... Yeah, because like there is a phenomena about things as well and I read too much articles as well about that it is definitely a man-made disease, so I was still like confused like because like in this type of like political situation everything can happen. (Masood)

The videos and posts were being sent to them or spoken about by people they knew, often close family and friends, which again made it hard to completely reject their validity or take a stand against them.

No, no, just there's a girl at work called Charlotte and she's really, she's right suspicious about the government and every time she's working she's just, she really doesn't trust the government and she just fills everybody's head up and we laugh at her at the time but when I'm driving home I do think sometimes she makes a lot of sense, but deep down I know half of the things she says it's not true, it's really extreme, she's really extreme...and when I'm heading home on my own at night I do, I'll be pulling stuff together and I'm like oh, it really makes sense and it would be convenient but, to just like sort of do this and you know, so you just don't know sometimes. (Rebecca)

The stories shared were frequently very emotive, and were catching participants at a particularly anxious time when they were more willing to believe them. Two participants' experiences with two different videos highlight this well:

There was one video that was posted, actually comes to mind now and it scared the life out of me, it absolutely frightened the life out of me, I spent the whole day crying, put it that way. This woman who, I think was a nurse and apparently this was a fake video that was going around and she said, you know, this Thursday is going to be the peak day and if your child has got asthma and I'm thinking, oh dear! I mean, other words came to mind but I'm being recorded, so [laughs] I won't say anything! But yeah, if your child is having breathing problems the ambulance won't come out and they're just going to leave them at home to die and it was horrible, absolutely horrible and I am... I go to church and it was a lady on our church WhatsApp group that put it on there and she didn't really think anything of it and I think she'd been on a break, saw this video and thought oh I'll post this and it was awful to listen to it and I... I since found out that it was actually fake, you know, and I don't know why people do these things. (Louise)

As Louise's son had asthma she was particularly worried by this video and before she found out it was a 'fake video' she shared it amongst her family and friends because she was so upset and concerned. This gives some insight into how and why videos like this spread. Another account from Laila referred to the story about children being taken out of school and quarantined away from their parents. She described the distress it caused her and why she had believed this particular video:

I was so scared, I couldn't sleep, even now, sometimes I can't, I think what if my daughter got Covid...I've got a few friends, you know, they were talking 'have you

heard that if you send them to school they have authority to take your children away from you' and I thought 'oh my god, I've only got one'. Because so many people were talking about it and the way that the video was made it was like a proper...it convinced you. So I think everybody believed it. But then afterwards they said it was fake news. But by the time you find out the video was fake, you already believed it, you've stressed yourself out already. (Laila)

These experiences both underline the upset and personal trauma that the circulation of misinformation can have and why it is able to gain traction among people with no desire to spread false or misleading information.

Overall, people's views about the Covid-19 information they had been exposed to were conflicting, contradictory and uncertain. They wished to distance themselves from conspiracy theories, defining it as something others were involved with, yet it often crept into their language and narratives, particularly when discussing vaccine uptake, as we will discuss below.

Rapid local and targeted responses appeared to stem the tide of misinformation to some degree. The participants who discussed the school children story also talked about the video from the council which debunked the story and was produced in Urdu and Punjabi to reach the population where it had spread the most. In general, people trusted their local leaders and the Bradford Council website was frequently mentioned as place where people accessed information about Covid-19. Several of the participants worked in community roles and were perceived as trusted individuals by their service users, enabling them to act as touchstones for information about Covid-19.

Access to Health Services

At the time of interview, many of the people we interviewed still felt quite nervous about accessing health services, largely because they were afraid of catching Covid-19. Angela remarked that at the moment, the hospital is 'the last place you're going to go, isn't it?' and Louise echoed this view:

In my head, I don't know whether it's true or not but in my head I'm like, no, don't go anywhere near that BRI! You need to stay away from the BRI because we don't want to come out with something that we've not got, you know. (Louise)

Some participants described how they had actively avoided attending their GP surgery or A&E because they were worried. This included Rebecca, who did not seek help when her daughter was experiencing some medical issues.

Serious misinformation about Bradford health services, and the Bradford Royal Infirmary in particular, was also playing a role:

I have heard my parents saying oh 'this person didn't go to hospital because they were scared that they might get the virus or something might happen' ...they've said you know, 'don't go to hospital you know they won't make you recover, they'll just give you an injection and they'll just kill you off' and you know, I've just heard you know, so many different stories from my parents and people. (Tariq)

Tariq said he did not trust these stories and was trying to convince his family and friends that they were false but they were widely shared and believed in his network. Social media stories (which could have been genuine or partly genuine) about long queues and waits at A&E were also being shared and this was another barrier for people, as Angela discussed:

A: Oh no, I wouldn't go at all, if it's Bradford, you have to queue for hours, I keep seeing stories where there's six-hour waits.

I: Where have you seen those stories?

A: Just people saying, oh I've seen some on Facebook. (Angela)

Aside from social media stories, people perceived that it would be very difficult to get appointments during this time as the health service was only focused on emergency cases:

Well I've tried, but unless you're really, really ill and something is serious, then you're to get, nobody's going to get an appointment, just not going to get anything, that it's like the practical stuff and things like that. If people with cancer weren't dealt with, we've had in Bradford in other places I know cancer treatment was stopped because of Covid, and then getting appointments and things like that the cancer patients have been deteriorating and all this type of stuff. (Hasan)

Some participants had actually struggled to access the services they needed during the pandemic. For example, Monika found it difficult to access mental health support for her teenage daughter as she was 16 and unable to have a virtual GP appointment by herself. Monika had to be very persistent and spend hours on the phone to get her daughter the support she needed. She described feeling quite frustrated at the GP surgery and wondered what they were busy doing, until she listened to a podcast from a GP's perspective which made her realise the pressures they were facing.

Bina talked about having to help her elderly brother and sister-in-law access an appointment at their GP practice about a worrying heart complaint. She discussed how they were put off by the GP practice's answerphone message:

So my sister-in-law, who's second language, she rang the doctors and she rang me back and she says, there's nobody there, there's just a phone message talking about Covid. And I said to her, I said no, you need to wait because everybody's sending this phone message of Covid, after the phone message you'll get through to the doctors. So that was kind of like a barrier for people that did not understand how the system was working. So then I did it and I rang them and I've been in contact with the doctors all the way through for myself and for my brother. (Bina)

Kristof talked about some of the Slovakian/Roma families he worked with being put off from accessing health services here and were getting relatives to send medication over or even travelling to Slovakia to access services:

I had a number of phone calls from families who can't speak English, as so they're trying to ring their GP surgeries, they found it very difficult because there were no interpreter, and then rather than buying medication from local shop, some Slovakian shop or Polish shop they do have a tablet for sore throat or something like that, even antibiotics, so they asked the family members to send some over... And there were quite a high number of people who had returned back to their home countries for this period of time, as they just simply returned.

For people that had less knowledge of the system and/or faced language barriers, the health service did appear to be less accessible to them during this period.

A participant who struggled to access the healthcare she needed during this time was Jackie. Jackie had been bereaved of both her parents at the beginning of the pandemic. One parent had died of Covid-19, and she felt that their symptoms were not taken seriously enough by the health care workers treating them and they died at home very suddenly after being discharged from hospital care. Jackie described feeling that her family had been abandoned and that this abandonment continued in relation her own health as the regular appointments she had at the hospital were cancelled or postponed, and her assigned Community Psychiatric Nurse had failed to get in touch with her. She said:

I've, well I've had... I had quite a thing, well a few things going on. Obviously a lot of the treatments and things that I've been having are just not available so they're just sort of in limbo, sort of who knows if I'm going to get another appointment, they don't deem them sort of, you know, essential. They're essential to me but obviously not to the service.

These experiences had coloured her whole perception of the health service, and whilst she was sympathetic to the staff and the challenging work they were doing, she felt incredibly let down.

Overall, many of the participants expressed some fear and even mistrust towards health services at this time. This was exacerbated by news about the NHS being overwhelmed and the spread of misinformation. These negative feelings had, to an extent, reduced with time and some indicated they were a bit more confident about accessing health services than they had been earlier on in the pandemic. The participants who had managed to access the services they needed were generally satisfied with their experiences, but some of the stories still indicate that there were people who had been excluded or felt left behind.

Vaccine Hesitancy

Results from a survey of 4001 adults in the UK found that 54% would definitely accept a Covid-19 vaccine, 31.6% were unsure but would lean toward yes, 7.9 were unsure but would lean towards no and 6.5 said definitely no.¹ Of the 20 people we interviewed, 9 were happy to have a Covid-19 vaccine when it becomes available (with caveats around safety), 5 felt very mixed about it, and 6 said that they would not be willing to have it. This is an incredibly small sample size and we do not know how far this reflects Bradford's population as a whole but early results from the most recent Born in Bradford survey indicate a similarly high-level of vaccine hesitancy. Out of 222 people, 61 had not thought about getting the Covid-19 vaccination, 76 did want the vaccination, 61 were not sure and 24 did not want it. In the interviews we did find a lot of alignment in people's concerns, attitudes and beliefs about vaccinations and Covid-19. The findings below offer some insight why people might be unwilling or hesitant to have the Covid-19 vaccine. Generally, the people we spoke to were relatively positive about vaccinations. Most thought they had been immunised as children and if they had their own children, they had mostly been immunised.

Safety concerns

The safety of a potential Covid-19 vaccine was a concern, even for those who were very willing to have it. Some felt reassured by the medical establishment testing process in this

country, as Angela commented 'in England we're very good at testing stuff, aren't we?'. Louise was a little less sure:

I think I'd have to know that it was a safe... I mean, they wouldn't be doing an unsafe vaccine anyway would they, you know, but I think I'd have to have some confidence that it was a good vaccine and that it was quite safe.

Others wanted more information about what the side effects would be, such as Bina:

I'd want to know what are the side-effects, I'd want to know, you know, how it's been trialled and the effects of it and if there's any side-effects and has it worked well on the people that volunteered and so on, so I'd want to know a little bit more about it but I would be happy to take it if it was to prevent Covid and if that was a standard thing that we all had to go to the doctors to do, I would, I'd take all my family and say we all need to get vaccinated with this. I would have no qualms about that at all.
(Bina)

A major issue for people was how quickly any potential vaccine would have been produced, and that the vaccine makers would not know all the side effects as yet. For example, Sofija was worried it had not had time to be fully tested and Tariq wanted to wait three to six months to see what the effects of the vaccine were on others before he would be happy to take it:

The participants were generally positive about other vaccines because they had been around much longer and we knew what their side effects were. Some people were afraid of very severe side effects, and it was clear that these worries had started or been exacerbated by engagement with misinformation:

It's not tested, eh, basically that people are saying they don't know how safe it is plus they've made it so quick we don't know the side-effects it's going to have in the future, I mean it's probably safe because they wouldn't be allowed obviously to give it to us otherwise, or maybe they would you know, sometimes they don't care, but you just don't know if it could cause infertility, it could cause cancer in the future.
(Rebecca)

You know, there's so many theories I might not know about, you know? This injection, whether it's good for you or it's bad for you, we don't know yet, just waiting for the outcome. (Atif)

Conspiracy theories about the Covid-19 vaccine

Those hesitant about having the vaccine felt confused by the negative stories about the Covid-19 vaccine, rather than being resolutely against it. There was one exception, Faiza, who had joined live social media broadcasts where people were revealing the 'truth' about the negative side effects of the vaccines that they said was being hidden from the general public. Other people's engagement with misinformation and conspiracy theories around the vaccine was more passive, such as Rebecca, who said she did not actively seek out these types of videos but they often auto-played when she was using YouTube. She described feeling very confused after watching one such video:

I think Donald Trump tried to bring out a vaccine and I'm not sure if it didn't go very well, I'm sure around Covid, I'm sure there was people dying, I think some people were okay and I'm sure some people died from it, I'm not sure, see there's a lot of false news as well, that doesn't help people make decisions. In the media, it's just a really confusing thing if I'm honest with you, it's just a really confusing topic because you just don't know what to do because there's not much, not many people know much about it, even the scientists, they know about Covid, it's been around for a long time, but I just think it's just one of them that you just really don't know what to do and you just kind of have to guess, yeah, I don't know, (Rebecca)

Tariq knew that watching these videos was impacting on his feelings about the vaccine:

I probably need to stop getting these WhatsApp conspiracy videos and that would probably help me get it quicker. (Tariq)

Alongside stories which claimed that the Covid-19 vaccines were unsafe, there was also the allegation in these conspiracy videos that certain communities and ethnic groups were being used as guinea pigs for testing the vaccine and/or the vaccine was being used as a way to harm them:

I think what the community are saying is that the vaccine is testing people, they're just using people as the guinea pigs... And I think they will say that, any vaccination now, they may think oh is it Covid, they're trying to just test us for Covid because we experience discrimination for many years, and if we've been focused for, if the Slovakian authorities we are focused especially on the Roma, and the focus is they will be testing them because they were noting who could be spreading all this coronavirus, they may think the same thing now why are we going to offer immunisation, because they're going to trial it out on us. (Kristof)

It's all about keeping the population, like controlling the population, and that's the only two I've heard and they're saying about the vaccination, that this virus attacks the BME people more and that they were trying for trials on the BME people first and people are saying oh, there you go, they want to kill the BME people first. (Tariq)

These conspiracies theories appeared to have gained more traction and power due to the disproportionate numbers of people from Black and Asian backgrounds dying of Covid-19 and by the recent conversations about racism in UK stemming from the Black Lives Matter protests.

In some cases, those who said that they would be willing to have the vaccine still appeared to have been affected by conspiracy theories. Hasan, for example, said he would be happy to have the vaccine, even travel abroad if they were offering it elsewhere. Yet he still thought that the pandemic had been over-exaggerated:

[I would] have the vaccine, come back, not a problem, if I really want it, but realistically I have heard... at the moment everything's fine, it's not got to that stage, it's not pandemic in the way that they're saying, it's a little bit, but the... if it comes here and it comes to the point where it's going to get to the point where it's going to get out of control this government will have a vaccine, it'll come out and people will be given it. (Hasan)

Angela, who was also keen to have the vaccine and get on with normal life, indicated that she gave some credence to a story she'd heard about people being given the seasonal flu vaccine and being injected with the Covid-19 virus instead. These examples demonstrate the way that misinformation has the potential affect participants' viewpoints in a myriad of divergent ways and show that nothing is clear cut around people's views about the Covid-19 vaccine.

Knowledge of vaccines and disease

A lot of the hesitancy around Covid-19 vaccine was rooted in common misunderstandings about health, disease and vaccines. A view widely held, even by those participants positive about the Covid-19 vaccine, was that the seasonal flu jab makes you poorly and can actually cause you to get flu.

So if you don't have something in you then they, like flu vaccine I've heard, a lot of old people I know from before it's like they never had flu before but once they have flu vaccine they are bound to get flu, they get flu after that and then it actually makes them really ill so it's something I see as, I don't understand why it's there because it's putting something in your body which you don't, if you don't get it but you're putting something purposely into you that will affect you afterwards. (Ambreen)

For some participants, these fears about the seasonal flu vaccines were transferred to a potential Covid-19 vaccine as it was regarded as something which would disrupt the body's natural state. Atif felt that any Covid-19 vaccine would be damaging to him because his immune system might not react the way it is supposed to:

Because probably naturally, you know, like what you call it, if your body reacts to it it's okay, if it can take it, your body fights, rejects it then what's going to happen then? You know, so some people their bodies asking whether they can take it, some people's bodies are weak, the immune system might not be working all that perfectly, or all that well, or that that might cause them a harm, instead of doing good. (Atif)

There was also some uncertainty about how the presence of Covid-19 would impact on cases of seasonal flu. For example, Sofija, argued that she would not have the seasonal flu vaccine this year (she had had it once before whilst pregnant) because there will be less flu around due to the prevalence of Covid-19:

I believe probably now coronavirus is like taking all the areas that it used to be just flu areas, and there's no point of making flu vaccination if there isn't that type of flu around, what I'm thinking. Yeah, probably it's just coronavirus around, and obviously we haven't got vaccine yet, so, and probably it will be too late to, well, hopefully maybe next year it will get through, I don't know, but it will be different kind of virus, I believe, I mean, you know, it will mutate, so, yeah. (Sofija)

Participants like Sofija showed engagement with medical information surrounding viruses and vaccines but important concepts became muddled. Rebecca also demonstrated this, as she showed awareness that there are other coronaviruses:

I personally I think I wouldn't take it if I'm honest with you because if this didn't happen I wouldn't have had it anyway, if Covid didn't happen then I wouldn't have needed this vaccination anyways and the chances of me getting Covid would have

been very slim, but I know that we had a big pandemic and that it spread but I'm hoping now it's like everything's died down we probably won't see it ever again. But it's been around, Covid's always been around, Covid's been around in so many different like strains because there's so many different types of Covid, but yeah, I don't think I would, I think I might do later on in life when I got a bit older because it'll have been more tested and you'd be able to see if it's affected people or not but right now, no, I definitely wouldn't have the vaccine. (Rebecca)

There is a line of logic being used by Rebecca but the underpinnings of that logic are based on only a partial understanding of the science of disease transmission, Covid-19 and other coronaviruses. Her case exemplifies well just how complex this topic is and how difficult it may be to increase public understanding.

Another perception about the Covid-19 vaccine was that it would be 'stronger' and involve a higher dose than other vaccines. Faiza believed a death of a child in her family was caused by a travel vaccination, and argued that the Covid-19 would inevitably be stronger than any travel vaccine, so would be particularly dangerous:

If we already had a death in the family with regards to the travel injection then this Covid is going to be stronger no doubt, that is just travel, so this is for like symptoms and everything else, that would be much more stronger, and much more medicine that would be in it, then definitely not. (Faiza)

Belief in strength of own immune system

Another common view was that people did not need vaccines and that their bodies had the ability to fight off viruses unaided. It is worth noting that some people who were willing to have the Covid-19 vaccine expressed this view about the seasonal flu vaccine:

I've never taken it up because I feel I'm strong enough at the moment to fight it myself. I'm exposed to a lot of people in my job and literally people have colds all the time, so I think I've got quite a high resistance to any kind of diseases. (Bina)

With things like flu you build up an immunity over the years, and I've had a lot of years to build that up. Therefore I don't think that it's necessary to add an additional thing. My body over the years has become accustomed to dealing with things like flu, but Covid is unique (Robert)

Robert said he would be willing to have the Covid-19 vaccine because the virus is 'completely alien' to his body, unlike flu. Robert's age (85) was part of the reason why he felt he might have built up immunity to flu, but a similar idea of immunity was expressed by the youngest participant, Riyadh (aged 20), about both flu and Covid-19:

If I can produce antibodies for a flu virus etc. then I don't need the vaccine for it. If I already had the antibodies...Even if I was to have Covid without any knowledge of me having it because you don't always show symptoms. I could also always develop antibodies so I don't see a need to take the vaccine whilst I have the antibodies anyway.

Riyad, a student healthcare professional, expressed a confidence that his body will have built up antibodies to both flu and Covid-19, which would make a vaccine futile. This view

appeared to be linked to another idea expressed by a few participants that immunisations as children were fine because they were vulnerable and had not built up any antibodies. In contrast, having vaccinations as adults was thought to be strange and perhaps unnecessary:

We know that a child should have his or her vaccinations, but then we, because we never experience, or my parents having vaccinations. (Kristof)

Some participants also said that they were well equipped to fight off seasonal illnesses with herbal remedies, rest and fluids, and therefore felt they could tackle Covid-19 and/or flu. One such person was Atif, who despite saying he was unsure whether his body was strong enough to respond to a Covid-19 vaccine, felt sure his regular consumption of green tea would have a protective effect.

Emotional toll of the pandemic

The interviews highlighted that thoughts and decisions around Covid-19 and vaccine uptake were emotive. As we saw from Faiza's narrative, the death of a child in her family had contributed to her negative opinions about vaccine use. The toll of this pandemic and the anxiety and stress it had caused were also influencing people's views and decisions. For example, Sofiya had been very worried about Covid-19 at the start of the pandemic and this had caused problems with her mental health:

I'm trying to like, you know, not to think about it, because the first two months it was very difficult for me because I took it too seriously, I didn't go out, completely out of the house, I had depression, so it struck me very hard. So now, I'm just thinking, 'Whoa, whoa', I've had enough, so at the moment I could, you know, procure some information, but I'm not taking it like deep into myself. (Sofiya)

Perhaps as a defence mechanism to taking it 'too seriously' before, she now felt that Covid-19 did not spread as easily as people were saying. This appeared to have made her more ambivalent toward the vaccine. Trying to avoid engaging with information about Covid-19 was something Jackie had done as well. Her bereavements and negative health service experiences at the start of the pandemic had impacted on how she felt about the Covid-19 vaccine. She described herself as someone who, pre-pandemic, was very positive about vaccinations and even volunteered in a flu clinic. However, when she found out her partner had attempted to enrol for the Bradford Covid-19 vaccine trial she felt very upset:

I don't have a problem with it [vaccinations] at all, apart from we're scared to death of the Covid one and I don't know why. Because my other half had said he'd seen the advert for the Bradford one and he'd gone online to try and do it and he couldn't find it, he was having a right problem and it were only because it came on the news that he said that and then I exploded and I just sort of went, 'what do you mean', we've not discussed it and I think that... I'm sort of so raw from it, I don't know whether I want it. And I don't know why, you know, is it psychological, is it because I don't know enough about it. (Jackie)

Conclusion

This is a small study but it has been able to dig deep into people's health beliefs and health experiences during Covid-19 and their attitudes to a potential vaccine. It showed that Covid-19 misinformation has caused much confusion, distress and distrust in Bradford. By and

large, the people interviewed in this study were not sheltered from the health consequences of Covid-19; they had family members, friends, colleagues and neighbours who had been ill, some very seriously. Yet being faced with this reality did not make them less susceptible to being influenced by misinformation.

Many of the participants felt that the national government had given mixed-messages and enforced contradictory rules around Covid-19, and some believed that traditional news outlets were acting as their messengers, rather than as critical voices. This appeared to have fostered a sense of mistrust and allowed other, less reputable information sources to fill in the gaps. Several participants were also engaging with news sources from other countries. This had led to further confusion, as case numbers varied and different government responses appeared to be in opposition. Social media use among participants was almost ubiquitous and they had found stories about Covid-19 difficult to avoid. Whilst most said that they had tried not to engage with them, the pervasiveness of misinformation and its repetition appeared to erode confidence through a drip drip effect, casting doubt in their minds. The spread of social media misinformation appeared to be particularly prevalent in the South Asian population and, to a lesser degree, in the Eastern European population. This seemed to be because these communities were more connected to each other so information was able to spread quicker and easier. They also felt more vulnerable to the virus itself, to being the victims of state experimentation/violence and perhaps to the financial impacts of Covid-19 measures. However, this study suggests that the communication of misinformation has a broad reach and is not confined to a particular population group. It is important to note that misinformation could be effectively countered by targeted local responses. Participants on the whole trusted their local leaders and people within community support roles that they had frequent contact with e.g. teacher/nursery worker, advice worker. Harnessing these connections effectively will be central to the spread of correct information and reassurance.

The people we interviewed were still worried about accessing health services for fear of catching Covid-19. Perceptions remained that the BRI was a 'no-go' place and somewhere to avoid if at all possible. This was reinforced not only by serious lies about the actions of Bradford healthcare workers but also by the difficulty some participants had faced trying to access healthcare. Despite the narrative of 'healthcare heroes', this period created both a real and imagined distance between the individual and the health service. It seems that within this space, misinformation, suspicion and ill feelings were able to grow.

Many of the participants' views around Covid-19 and the Covid-19 vaccine were inconsistent and wobbly, and this is unsurprising. This virus is new and there has been a deluge of information about Covid-19 and vast majority of us do not possess the specific skills and knowledge to correctly interpret and process it. The participants wanted the pandemic to be over as soon as possible, and knew that a vaccine is likely to be the only way out, but many were still hesitant. They had safety concerns, largely because it was being produced and trialled much more quickly than other vaccines. They wanted reassurance that the vaccine was safe but they did not know what safe looked like, or what would make them feel reassured. Misinformation and conspiracy theories about the vaccine were clearly at the heart of a lot of their hesitancy, as they were being exposed to many more negative stories about the vaccine(s) than positive ones. The interviews also revealed that some common misconceptions about health, disease and vaccines may make uptake of the Covid-19 vaccine difficult, and highlighted the need for greater individual engagement and

empowerment around health matters. What was also inescapable throughout the interviews was the emotional impact of Covid-19, which included bereavement, anxiety, social isolation, facing an uncertain future, and this was feeding in to people's beliefs and decision-making in complex ways.

Bradford's population has faced unprecedented challenges since the start of the pandemic, with relatively high case numbers, deaths and the aggressive spread of misinformation. The announced vaccines offer hope for recovery, but it is important to acknowledge that many people have had their views and feelings towards health, the health service and who they trust significantly disrupted. This study indicates that the people most likely to be affected by Covid-19 are those most hesitant to have a vaccine. If we want to avoid the deepening of health inequalities we need to take serious action to stem the tide of misinformation and build back trust.

Recommendations based on findings:

- 1) It is important to monitor misinformation circulating on social media. This is taking place ad hoc but could be undertaken more systematically through a central contact or group such as the CSAG Community Soft Intelligence group.
- 2) Misinformation and fake news should be countered quickly and locally, using conventional and social media featuring trusted community leaders and networks, and in multiple languages. Contact points (web-based) should be made available to provide advice.
- 3) Hesitancy around vaccine use appears to be rooted in misinformation and anxiety and there is a need for this to be mediated by clear, honest and responsive information that is sensitively framed and non-judgemental. An on-going series of webinars (with Instagram and FB live streams) led by community, faith and youth leaders should be held to listen and understand people's concerns and provide open and honest answers that recognise areas of uncertainty.
- 4) A regularly updated summary of misinformation/fake news arguments in circulation should be made available as FAQs with responses for all NHS/LA/VCS staff and community workers.
- 5) The study demonstrates the emotional impact of misinformation and the capacity of people to hold contradictory views at the same time. The stress of holding multiple viewpoints and the anxiety that this causes, only served to amplify the anxiety caused by the disease itself. Awareness about the impact on mental health should be raised in services providing care and support and information and strategies provided to staff to reduce anxiety.
- 6) Many people put greater trust in media from their country of origin and exposure to different and sometimes conflicting advice exacerbates mistrust and confusion. News on this media should be monitored as part of 1) and efforts made to harness these channels in press briefings and communications strategies.
- 7) It is important for GPs and hospitals to strengthen their messaging that they are open for other medical problems despite Covid-19 and that their users will be as safe as possible.

8) There is a loss in trust in health professionals and NHS organisations. Identifying key community influencers and role models and equipping them with the resources and arguments to counteract misinformation, such as in the Covid-19 Lead programme, is crucial.

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ⁱ Loomba, A. de Figueiredo, S. J. Piatek, K. de Graaf, H. J. Larson. [Measuring the Impact of Exposure to COVID-19 Vaccine Misinformation on Vaccine Intent in the UK and US](#). DOI: 10.1101/2020.10.22.20217513 (pre-print)