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Experiences of face mask use during the COVID-19 pandemic: A qualitative study

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Abstract

The use of face masks and coverings has been a central component of efforts to mitigate the impact of the COVID-19 pandemic and has been legally mandated in some countries. Most academic studies to date, however, have focussed primarily on its effectiveness in reducing SARS-CoV-2 transmission, largely neglecting the social dimensions of mask mandates. In this narrative interview-based study, we consider experiences of face masks, with a particular focus on groups considered to be at a potential disadvantage from compulsory masking. Drawing on 40 telephone, video-call and e-mail interviews, we highlight the impact of inconsistent communication and the notion of mask wearing as an act of altruism on participants' experiences. In particular, we show how intolerance towards individuals who did not wear masks could result in stigma and exclusion, regardless of the legitimacy of their reasons. We suggest that more is needed to mitigate the 'dark side' of discourses of collective effort and altruism at a time of societal stress and fracture, and to account for the needs and interests of groups for whom compulsory masking may result in further marginalisation.

BACKGROUND

The urgent need to address the health challenges posed by the COVID-19 pandemic has resulted in a fast-shifting scientific evidence base and a tumult of policy responses. Prior to the rapid development of highly effective vaccines and anti-virals, which raises the prospect of an end to the suffering caused by the pandemic, a key part of the response was the development and implementation of non-pharmaceutical public health interventions. Face masks, for example, became a ubiquitous part of the response worldwide, yet they have been a source of major contestation. In the early phases of the pandemic, face masks or cloth face coverings were put forward as a 'low cost' intervention that could offer important protections, particularly as a means of source control (protecting those around the wearer rather than wearers themselves) (Cheng et al., 2020; Feng et al., 2020; Greenhalgh, 2020). Universal adoption of face masks or coverings was seen as offering large benefits at the population level (Cheng et al., 2020). However, calls for mask mandates were also seen to risk overlooking their potential negative unintended consequences, particularly for marginalised groups (Martin et al., 2020).

Since these early debates, many governments, including the administrations of the United Kingdom (UK), have introduced compulsory mask wearing in a variety of public settings, backed in some cases by criminal law. So and Baker (2020) describe the shift in position in the British context from no mask wearing during the early months of the pandemic (January–April 2020) and only on 11 May 2020 whenface masks were suggested in contexts where social distancing was not possible. By mid-June 2020, masks became mandatory on public transport and health-care settings. Since then, the law relating to face masks has oscillated in the UK's jurisdictions and elsewhere with successive waves of the pandemic. The evidence base for masks has also developed. While a trial focussed on protection for the wearer found no significant effect of mask wearing (Bundgaard et al., 2021), a range of sources of evidence offer some support for population-level impacts (e.g. Chu et al., 2020; Rader et al., 2021), albeit not at the gold standard of the controlled experiment of the randomised controlled trial. One important limitation of the existing evidence base is that much of it is not based on community use of cloth or disposable face coverings or tested in 'real world' scenarios. Even epidemiological studies of the impact of masks tend to account more for health protection than for their social consequences (Bakhit et al., 2020; Esposito et al., 2020; Javid et al., 2020). Yet if 'sound health decisions depend on accurate perceptions of the costs and benefits of certain choices for oneself and for society' (Van Bavel et al., 2020, p. 461), then accounting for the full range of positive and negative impacts of mask wearing (and particularly mask mandates) at multiple levels is surely crucial (AUTHORS).

Across the four nations of the UK, mask mandates were rolled out progressively over the summer of 2020 across a range of settings, including ultimately most indoor public spaces, such as shops and public transport. Owing in part to the public health emergency, these measures were not subject to the usual levels of parliamentary or administrative scrutiny, for example, in relation to their likely impacts on inequalities. Various groups, however, raised concerns that some people were likely to be disadvantaged as a result of their introduction. For example, it was claimed that the communication needs of D/deaf people or those who lip read were overlooked

in such policies (Grote & Izagaren, 2020), and that people with disabilities could face stigma and discrimination (Armitage & Nellums, 2020). Reports abounded in the press of people with post-traumatic stress disorder or for whom masks triggered memories of previous abuse, who found themselves on the end of 'mask rage' from members of the public and who objected to their decision not to wear masks (Ferguson, 2020). Face masks have also been reported to cause physical issues, such as impairments to vision, headaches and shortness of breath, which may be especially problematic for people with existing health conditions (Ramaci et al., 2020).

More broadly, the COVID-19 pandemic has highlighted—and is likely to exacerbate—existing health inequalities (Coronini-Cronberg et al., 2020), and the role of masks and other non-pharmaceutical interventions in perpetuating such inequalities is a potential concern (Robling, 2020). There is also a growing trend towards individualisation in some of the discourses around masks, including academic analyses: for example, efforts to identify correlations between mask use and prosociality and other desirable personal traits (Campos-Mercade et al., 2021), and calls to portray mask wearers as altruistic or 'protectors' (van der Westhuizen et al., 2020). These discourses may have important downsides, for example, by creating a context in which those who are unable to wear masks, due to medical or social exemptions, are portrayed as less altruistic or prosocial and subject to further stigma (AUTHORS).

To date, however, these social dimensions of promoting and mandating of masks and face coverings have not been systematically examined. With a view to addressing this deficit, particularly in relation to individuals and groups who may be more likely to experience the downsides of encouraged or enforced mask use, we conducted a rapid study in autumn 2020 to explore the lived experience of face mask use during the COVID-19 pandemic. Given that wearing masks is now an everyday experience in many countries and that future pandemics remain a threat to societies, understanding these experiences offers an important contribution to the evidence base for their ongoing and future use.

METHODS

Study design

The aim of the study was to understand the lived experience of the mandated use of face masks during the COVID-19 pandemic across several groups. With a view to prioritising the voice and experience of participants, we used a narrative approach to our interviews. Drawing on the tradition outlined by Riessman (1993) in which collecting accounts of feelings, behaviours and experiences is central, we placed these *narratives* at the heart of our data generation strategy. Given the practical and ethical difficulties of conducting interviews face-to-face during a global pandemic, we conducted interviews by phone, video-call and email. Narrative interviews offer a good choice for understanding the 'how, why and what' of people's stories and have been successfully used in eliciting stories of health and illness (Anderson & Kirkpatrick, 2016). Our core research question to guide the narrative interview was 'Tell me about your experience of face masks since they were made mandatory on public transport and in health-care settings on the 15 June 2020'. We used follow-up prompts, such as 'Can you tell me more about [x]' and 'What did [y] make you feel?', to secure further depth and detail where required, but largely followed the stories that participants chose to tell and the issues they felt were pertinent to them in relation to face masks. All interviewers (AC, EH, GM, KF, and PC) were provided with the same details about how to conduct the narrative interviews.

Whilst telephone interviews were chosen as the primary means of data generation, they are not without issues. For example, telephone interviews may present difficulties for those who are D/deaf as well as those who may prefer more time to consider their responses (including, but not exclusively, those whose first language is not English and those with learning differences or neurodiversity). We decided to offer a choice of telephone, video and email interviews to allow for greater inclusion and accessibility in participation. Email interviews are a useful means for collecting 'rich written accounts' as well as memories and experiences (Gibson, 2010). They therefore aligned well with the narrative approach and with the aims of the research.

We anticipated primarily collecting email interview data in English, but remained open to participants who felt they could only contribute in a language other than English, seeking translation of their contribution once data collection was complete. In the event, all participants contributed in English. We considered the NIHR Equality in research checklist in devising the study (which has now been superseded but covers similar issues in this checklist: https://centreforbmehealth.org.uk/wp-content/uploads/2020/07/Checklist_COVID_BME_v2.pdf). We produced an easy-read participant information sheet, which included images and simplified language, to help with accessibility. We made both this and a longer-form 'traditional' information sheet available to participants.

Sampling, data collection and analysis

We took a theoretically informed approach to sampling, based on the developing categories and emerging theory (Coyne, 1997) of our preliminary engagement with developments in academic and public discourse around face masks and COVID-19. We intended to include around 30 individuals in our sample, for example, people with existing physical disabilities, hearing issues, or learning differences, people from Black, Asian and other minority ethnic backgrounds and people on low incomes. We only included adults in the study, and we only included participants who lived in the UK. Disabilities, and experiences of disability, differ substantially (Michalko, 2002; Retief & Letšosa, 2018; Shandra, 2018) and 'simultaneous oppression' occurs for many disabled people (Vernon, 1999). In the context of mask wearing, there may be variations in dilemmas and impact for people with different disabilities. We were therefore keen to involve a range of participants with different disabilities relating to mobility, communication, learning and neurodiversity to understand different experiences and implications of the facemask mandate. For similar reasons, we sought diversity in ethnicity and socioeconomic status in our sample. Data was generated between 29 July and 6 October 2020, and in total we recruited 40 participants. We explained that we wished to discuss the legal requirement to wear a mask or face covering that took effect from 15 June 2020 when setting up interviews (through the participant information, consent form and interview question itself). Some participants were early adopters of masks, for example, wearing them electively prior to that date, and this was reflected in some of the interviews. Fifteen participants were interviewed by email; the remaining 25 interviews were conducted by phone or video call. Each participant was provided with a £20 high street shopping voucher to thank them.

We recruited participants through advertisements on social media (Twitter) and through third-sector organisations representing the groups we wished to include. We provided participants with a link to a short anonymous survey to capture demographic information. Of the 40 participants, 39 provided information this way; one was not IT literate and did not complete the survey. Twenty-nine participants (74%) identified as having a disability (all indicating that they

had one disability only); a further four did not identify as having a disability but nevertheless ticked one type of disability that applied to them (hearing impairment). Our sample was predominantly female ($n = 28$); it comprised some ethnic and religious diversity—with $n = 11$ participants being from Asian, Black British or Indian backgrounds. A notable feature of the sample is the preponderance of participants on low incomes: almost half the sample ($n = 19$) indicated a household income of less than £20,000 per annum, and only seven participants indicated a household income of more than £50,000.

The study received ethical approval from [De Montfort University] and the data was analysed using reflexive thematic analysis following the process described by Braun and Clarke (2006). The data was analysed for what was said as well as how it was said, using inductive coding and then the generation of broad themes. [EH and GM] conducted the initial coding and naming of themes.

FINDINGS

Inconsistencies in evidence, policy and practice

Many participants discussed inconsistencies they perceived around masks and their implementation by the government as a response to the COVID-19 pandemic. Many recognised the challenges involved in developing a consistent evidence base at speed in response to a novel coronavirus. Nevertheless, the ambiguities in the evidence base meant that they struggled to comprehend changing scientific advice and sometimes had doubts about its validity:

> I like it [that other people are wearing masks], I prefer them to wear it, I do feel a bit safer. But then I have read online that the virus is spread through the eyes, so then I am thinking well how is that going to work if your eyes are out. I was confused.
>
> (P9)

While the science itself could change with daunting speed, many participants attributed their confusion less to science and more to the way it was incorporated into government policy and official advice. Some identified inconsistencies in guidance about where mask wearing was required, which seemed to have little foundation in scientific reasoning. For example, they asked why masks did not have to be worn in some settings (such as hospitality) but were compulsory in more transient spaces (like shops):

> And even restaurants are a bit confusing. People have said it's you know, so you don't have to wear them in restaurants and they talk about social distancing but we are right next to each other at tables. So, it's all that one rule for one thing and then one rule for another. People aren't really keeping a distance it gets confusing.
>
> (P13)

Participants also highlighted shortcomings in guidance on how to wear and launder face masks and coverings and noted lacking or inconsistent information about exemptions from wearing them that applied to some groups:

And it's mainly older people who don't understand that you can be exempt because the government has not advertised this properly at all. They just say you must, you must, you must, and people literally think they have to do it and anybody who is not doing it obviously are taking the piss and trying to kill them.

(P6)

Some felt they could identify particular discrepancies in their own communities, compared to society more broadly, which left them feeling frustrated. Sometimes they indicated that these discrepancies were patterned by variables such as ethnicity and age:

Myself I am Indian but I am just telling you, I have seen loads of Indian people; they don't take much notice. And the youngsters they don't take any notice as well. I don't think they are taking it seriously, I mean there is loads and loads of Indians as well but I think they are not taking it seriously up until now.

(P12)

More broadly, participants noted sharp changes through time, from the beginning of the pandemic in January 2020 into summer 2020, in government advice and requirements. Several perceived that positions adopted by the government and presented as matters of scientific certainty could be replaced, almost overnight, with contradictory positions also presented as a matter of truth. For some participants at least, these violent shifts could undermine confidence in guidance or even breed distrust:

I found it ridiculous actually because they keep changing their mind every five minutes, one minute you can all wear them here and then you can take them off there. And then oh they have changed it all again and now you have got to wear there here and not there. It's just, every day I listen to the news and it is changing every day. I mean it's just stupid to be honest with you. I think the whole thing is in a mess and that's why people give up on wearing masks because they don't take it seriously.

(P24)

Notwithstanding their frustration with government messaging, some participants accepted that a rapidly developing scientific evidence base would result in rapidly changing recommendations. As knowledge evolved, they said, so did their practice:

I didn't think they were much cop because people fidget with them and spread the virus from their fingertips to all kinds of surfaces. But I read that even the basic face mask does catch most droplets so I have changed my view… I think it was in the Metro paper, it said 99.9 percent of droplets in the basic one. So, I have changed my view.

(P11)

Others, however, were less forgiving of changing advice and law around the wearing of masks. They were broadly divided into two groups. The first group took the view that stricter policies around masks should have been imposed earlier, and that delay had contributed to worsening of the pandemic:

...I was wearing them before they were mandatory... So, I was glad I guess when they became mandatory because I thought they should be, and I have been doing it for a while, and it was nice that other people had to do it.

(P10)

For these 'early adopters', the use of face masks seemed a sensible precaution in the face of the uncertainty and virulence of the virus:

I ordered my own set of homemade masks on the internet on the first of April so again probably quite early compared to other people. And I think my reasoning for that isn't necessarily that the evidence is so super convincing that there is no choice, but I think I was already beginning to feel there was enough evidence to suggest that at the very least it might help you stop passing it on.

(P8)

The second group, in contrast, tended to interpret changes in policy as evidence that a mandate for compulsory mask wearing was justified neither now nor earlier in the pandemic:

The government's own impact assessment says that they have very, very weak evidence for use of them and it's only marginally better for what they call source control... So how they can mandate a public health intervention, even if it's an actual medical intervention, to strap something on to your face and it impede your breathing on marginal and weak evidence is beyond me.

(P6)

As might be expected, these polarised views on the validity of the science and the legitimacy of the government response also translated into polarised views on how advice and requirements on mask wearing should be enforced and policed. Those who argued that the government was overreaching its authority based on a partial or inadequate evidence base tended to feel that mask mandates were unjustified. For those who felt that the government had acted belatedly, a more rigorous or even punitive approach to enforcement seemed advisable:

The government should, should make really hard law that people must wear the mask otherwise they will get fined. I know that the police can't go around everywhere to look for people who are not wearing the mask but especially going in the shops, the supermarket won't allow it anyway, but the small shops should get fined if they allow anyone coming in not wearing the mask.

(P12)

On both sides, the strength of feeling was evident. Participants themselves were conscious of the divisiveness of the issue: as one put it, 'I think masks are the new Brexit: it's divided people right in half' (P6). Moreover, as we discuss next, these polarised views were related not only to governments' response, but also to individuals' behaviour.

Are we all in this together? Uncertainty and intolerance

Echoing some scientific commentaries on the issue (e.g. van der Westhuizen et al., 2020), wearing a mask was portrayed by some participants as an altruistic act, part of being a good citizen. Many understood the principle of 'source control' underlying the principal scientific arguments for mask mandates: that the wearer of the mask was not protected from getting COVID-19, but that masks may restrict its spread from wearers, if infected, to others. Several participants took the view that some personal discomfort or inconvenience was a reasonable sacrifice towards achieving the wider goal of protecting the population. Some went as far as portraying it as a moral duty:

> I think that if it helps reduce the likelihood that I will give it [to] someone else then I am perfectly OK with wearing it. If it reduces the risk by 50 percent that's well worth doing.
>
> (P22)

Participants were also aware of, and drew attention to, the symbolic dimension of mask wearing. Besides serving as an individual-level reminder of the importance of caution in day-to-day interactions, masks, they felt, also served to remind the community that things were not 'normal' and that vigilance remained crucial:

> I do think what it does is it signifies that the person wearing the mask is thinking about Covid and I think it does make you leave a bit more distance to them. So, I think it's an important sign that that person in the mask needs to be approached carefully for their sake.
>
> (P15)

Participants who valued the practical or symbolic effects of face masks and coverings, and highlighted the duty incumbent upon citizens to wear them, had rather less complimentary words for individuals who demurred from this duty. 'Anti-maskers' in particular—those who objected to face masks or refused to wear them on the grounds of personal liberty—were viewed with some derision:

> I think the people who are jumping up and down on [social media] going oh, oh my freedom my freedom, I think they can just take a running jump to be honest. Oh, my freedom is being damaged because someone is asking me to put a piece of something over my mouth for 20 minutes. Oh boo hoo, just get on with it and be a decent citizen.
>
> (P17)

However, it was not just individuals who objected to face masks on ideological grounds who attracted the ire of participants. While some participants did distinguish between 'legitimate' and 'illegitimate' reasons for not wearing face masks, others felt that anyone failing to comply with mask mandates during a public health emergency was failing in their mutual obligations to other citizens. Perhaps exacerbated by the failure of government to communicate the existence of and reasons for exemptions noted by some participants above, some were sceptical about the motives of those without masks:

So, I am getting breathed on by all these people who don't properly socially distance or don't get out the way and can't be arsed to wear a mask because it doesn't affect them. That bothers me more that people aren't wearing them. I don't think there are that many people who can't wear a mask because they are disabled. [...] I think it's ignorant, I think it's really rude.

(P10)

In the absence of obvious visual indicators that someone had a legitimate reason for failing to comply with a mask mandate, there was a tendency among some participants to categorise such individuals as 'rude', 'anti-social' or even 'idiotic':

No, the reason I put up with the uncomfortableness of the mask is because I feel that if you can wear a mask and I can then it's the public-spirited thing to do. And it's anti-social to not do.

(P2)

I mean with the plain idiots and, you know, you can tell that they're not exempt and they're not wearing them, well yes they're putting everybody's life at risk aren't they really.

(P5)

Highlighting the strength of feeling among some participants, misuse of masks sometimes seemed perhaps even more emotive than failure to wear one:

People who pull them down so they can talk are the ones that makes me mad, like the whole point is to keep your disgusting hot breath inside.

(P18)

Yes, if I see someone not wearing it they get a whole wide berth, the two metres. Or the ones that wear it with the nose sticking out which I think is the most stupid thing ever.

(P3)

Other participants were very conscious of the weight of these societal expectations, particularly those who were already visibly minoritised due, for example, to their disability or ethnicity. Some participants from minority ethnic backgrounds felt even more pressure to wear a mask—though others also highlighted the unexpected benefits mask mandates could bring, in the way that they applied, in an apparently colour-blind manner, across groups:

I do, yes I do. I think it's because of the ethnicity, I don't know if it's true or not but worldwide they are saying we are more prone to fatalities if we get it so I have that double whammy. So obviously I am even more anxious and because of that people tend to give me a wide berth

(P4)

> I am Asian and I come from an Asian culture. It's a whole thing, this whole thing about women, Asian women, wearing when you just see the eyes, it's crazy isn't it? It's like we say about people in hoodies—that was banned for a bit and people felt threatened about women wearing, Muslim women, with just their eyes, and people with baseball caps. And it's like we start understanding, yeah in some ways we don't feel scared because we have seen everybody wearing these masks.
>
> (P13)

For some, then, masks could bring unintended benefits. As we explore next, however, for those who claimed a legitimate reason not to wear a mask or covering, the situation was quite different.

Caught in the crossfire: Consequences for individuals who struggled with mask wearing

Many participants were concerned about the intersection of face mask use with disabilities and differences. For some, the arrival of face masks was in some ways positive, in that it removed some of the challenges they usually faced around social interaction and the reading of emotions:

> The people that are going around the supermarket are now the same as me. They can't see what, they can't see any emotion on my face and I can't see any on theirs, but I never could. But because, you can see I communicate a lot using gestures because it's kind of all I have. The rest of the world aren't used to doing that and now they have to so it's brought them out of their comfort zone into mine. And as a result, I found mask wearing quite a positive thing.
>
> (P22)

For others, having to use a face mask created additional care needs that were not anticipated or made them feel vulnerable in new ways:

> But I am not going to be exempt because I will get my PA [personal assistant] to put it on, I feel a little bit embarrassed watching the PA put my mask on, I don't like people to see her doing it so I tend to do it before anyone sees me. It makes you feel a bit more disabled that I have got the PA doing an extra duty for me. I know that's a bit conscious of the disability I suppose but it's like another care need that I didn't have before.
>
> (P9)

Disability or health issues (both physical and mental) were therefore foregrounded by the introduction of face masks, for better or worse.

For those who could legitimately claim exemption from mask mandates, this brought some challenging dilemmas. The rules regarding exemptions in the UK are cast in broad terms. They exempt 'people who cannot put on, wear or remove a face covering because of a physical or mental illness or impairment, or disability' (UK Government, 2020). Thus, exemption is a matter of self-determination, and the regulations are explicit that there is no requirement that people carry proof or evidence of their exemption when in settings where mask wearing is required. Nevertheless, many participants who claimed exemption expressed anxiety about enacting it,

and some described unpleasant situations that had arisen when they failed to cover their faces in public. The hostility indicated by some other participants towards people who failed to comply with masking requirements was indeed part of their day-to-day experiences during the pandemic.

This left them with difficult choices. Some chose to continue to go without masks and face the opprobrium that followed. This could range from disapproving looks to genuinely threatening encounters:

> It's also scary each time I do decide to go into a setting that requires a face mask – you have to mentally brace yourself for a potential confrontation or the humiliation of either having to explain your disability, or get refused entry. Even if this does not happen, the fear of it stops disabled people going into many settings currently. And the fear of being judged by other members of the public also does so, especially when there are many reports of confrontations happening.
>
> (P32 [email])

Consequently, those who continued to defy the expectations of others and chose not to wear a mask faced continued anxieties:

> I have been asked, "Can you wear a mask?", as I have gone into Morrisons or the garage or somewhere like that, at the start there was the lady at the door. But as soon as I said I can't wear one they were absolutely fine with me. So no-one has really been off with me. But I appreciate that other people have and even if I know it's not happened in the past it doesn't necessarily mean it's not going to happen in the future. So, I am still anxious if I go to a new place or there is always that anxiety that they might say you can't come in.
>
> (P1)

Other participants elected to forego their right to exemption, and instead to wear masks despite the discomforts they presented, seeing these as preferable to the risk of confrontation:

> I would have felt awkward because I can't help it I just think, why are you not wearing a mask, why are you not wearing a mask, are you leaving are you just pig headed or have you got a condition. You try and look at them and well you look OK, I know I shouldn't do it I know that people have done the same to me. Really in a way I wear a mask to blend in as well, sort of following a crowd.
>
> (P3)

For some participants in this group, wearing a mask despite their difficulties was a matter of mild inconvenience. For others, though, physical and mental health conditions, and past experiences of trauma, meant that wearing masks despite exemption presented a heavy burden. The language of perseverance appeared frequently in such accounts:

> I would prefer not to wear a mask and practice social distancing instead. Although I think, if I spoke to my consultant, I may be exempt from wearing a mask due to my mental health issues, I wouldn't in case someone told me off or challenged me if I wasn't wearing one.
>
> (P29 [email])

For a third group, the answer lay in wearing or carrying some visual token or cue that was taken to validate their exemption. Government guidance recommends 'an exemption card, badge or even a home-made sign' (UK Government, 2020). The most common choice among our participants was a sunflower badge or a lanyard, a symbol which has been used for some time to indicate that the wearer may have hidden disabilities and to invite those around them to adjust their behaviour accordingly. Government guidance is also clear that 'carrying an exemption card or badge is a personal choice and is not required by law' (UK Government, 2020). Regardless of the legal requirements, given the challenges associated with the alternatives, some of the participants in this group felt they had little choice but to identify themselves in this way:

> I feel like not confident in having that badge to show people, everyone makes you feel a bit nervous because everyone's looking at everybody. And so even though I've got a breathing problem I kind of like, I feel like I should put it on but I don't want to make anyone shout at me or anything you know like get into conflict.
>
> (P4)

> Ashamed is the word that comes to mind. And it says "hidden disability" on it, I've never considered myself disabled, so I feel a bit of a fraud, even though "severe distress" is listed as an exemption criterion. I would rather wear it to ward off being confronted by another shopper, than to not wear it, but it's not great to have a label round your neck and everyone wondering what's wrong with you.
>
> (P35 [email])

Wearing a badge, however, was no guarantee that others around would acknowledge it or understand its implications:

> If you are in a wheelchair people forget you are there, sometimes they are on top of you. But someone said the other day that people don't really read badges which is quite true.
>
> (P14)

> OK, I didn't have it on my neck, I had it in my bag, they looked at me and they judged me and they decided there is nothing wrong with her: she is taking the piss; she should have a mask on.
>
> (P6)

Moreover, wearing a badge whose connotations were obvious for those who did understand it was not a welcome option for many. Effectively, they felt, this was a matter of enforced self-disclosure.

The perceived need to have to 'out' oneself as legitimately exempt therefore created further difficulties for some people beyond whether or not they could or should wear a mask. The need to disclose, often in highly public places such as shops or leisure facilities, led to concerns about the 'shaming' of those who were exempt from mask wearing but who felt obliged to publicise the hidden disabilities or differences that justified this exemption:

> I purchased a Hidden Disabilities lanyard to demonstrate that I have an exemption. I don't like having to out my disability like that, but if I didn't have it, I feel like people would judge me and potentially confront me or even get me into legal trouble, even though I am acting in accordance with the law. It still feels like I'm being judged for it even with that on. I am constantly on edge in shops because I worry some people are judging me or will even potentially confront me, especially because they don't think "I look disabled".
>
> (P32 [e-mail])

Finally, for a fourth group, the downside of going out masked or unmasked were so great that they preferred instead to minimise their contact with the outside world. As might be expected, this too had its costs:

> The mask requirement discourages me from taking train journeys, and as masks are introduced into more and more settings, I feel shut out of those venues too. It has had a profound negative impact on my mental health, as I feel that I am still under lockdown, akin to being in an open prison as opposed to maximum security, but in a prison nonetheless.
>
> (P26 [email])

> I suffer from anxiety, panic attacks, and PTSD. This mostly stems from the abuse I received from an ex-partner, one of the things he would do was cover my mouth and nose so I couldn't breathe so whenever my mouth and nose are covered I panic, I also suffer from asthma so panicking doesn't help my breathing. Even though I could still breathe with a face mask on there were times where I would get panicky. Then I would feel really foolish thinking I was getting myself in such a state when no one would understand how I was feeling so that made my anxiety worse too which would affect my breathing and it was a vicious cycle. This has made me not go out as much as I would like to.
>
> (P40 [email])

Uniting the narratives of members of all four groups was awareness of the negatives their choices involved. Some of those who wore masks despite exemption articulated clearly the physical or psychological harms they suffered, while for those who invoked their right to exemption from mask wearing, with or without tokens validating their exemption, the fear of confrontation loomed large. In a society that participants agreed was increasingly polarised, conflict and the prospect of being judged presented prominent risks. During a pandemic in which public health messaging stressed the importance of collective action and mutual protection, they could find themselves on the wrong side of the imagined boundary of the community of good citizens. The right to exemption from mask wearing was not easily claimed: rather, it was a matter of careful negotiation of potential trade-offs, highlighting how complex a seemingly straightforward public health intervention can be in its impacts on a plural society.

DISCUSSION

Our study participants described the complexities and variety of experience and views around face masks in the UK during the COVID-19 pandemic. Despite their sometimesnegative experiences of wearing a mask, many participants were at great pains to demonstrate how they persevered. These experiences included specific issues for particular groups, often related to their own health or disability status. Often they saw the use of masks as a community-oriented act, demonstrating solidarity with others during a time of collective uncertainty. As Cheng et al. (2020, p. 2) suggest, use of masks:

> shifts the focus from self-protection to altruism, actively involves every citizen, and is a symbol of social solidarity in the global response to the pandemic.

Walker (2021) suggests that 'altruism could be better leveraged as a variable in health behaviour change strategies aimed at pandemic protective behaviours and beyond'. While invoking ideas of altruism and mutual obligation did indeed seem to prompt the intended sense of solidarity among many of our participants, our data also show that this response was not universal. Indeed, for some participants, the result was a sense of alienation. In some cases, for example, the consequence of the focus on altruism was the 'shaming' or stigmatisation of those not engaging in mask wearing. Here, the absence of a face mask appears to represent Goffman's (1963) notion of an attribute that marks individuals as visibly 'discredited': as bad or dangerous. Many of our participants reported being braced for confrontation or had minimised their personal and social activities (to an extent beyond that required by government legislation) to avoid conflict or the 'outing' of their disability in a public setting. Most chose to avoid being discredited—which may mean that those already used to managing either tension or information around their existing felt stigmas had had to make hard decisions about which stigma was most discrediting.

In a time of increasing political polarity, it is important not to 'obscure oppression' (Sumerau & Grollman, 2018) of marginalised groups that may inadvertently arise from public health intervention. Notably, the experiences of participants with legitimate claims to exemption from mask mandates indicate how efforts to engender collective responsibility and mutual obligation could result in conflict as well as solidarity. Indeed, our data suggest that in some senses, the former was a consequence of the latter: those who did not wear masks were viewed as an anti-social other to the pro-social majority. Of course, efforts to engender a sense of community tend implicitly or explicitly to draw boundaries of inclusion and exclusion (e.g. Young, 2001), but here the boundaries risked exposing already-vulnerable groups to hostility, marginality or even harm. Some people persisted with masks despite experiencing panic attacks, claustrophobia or difficulty with balance and mobility. Our participants described those who they judged to be unjustifiably refusing or avoiding mask wearing in highly emotive ways. In an environment in which strong, arguably even coercive (Jarman, 2021), messaging about the importance of contributing to public health were ascendant, those who visibly failed to contribute (even for reasons legitimised by law) were grouped with those seen as deviant.

There was also some evidence of similar processes of categorisation as behaviour around mask wearing intersected with other markers of inclusion and exclusion, such as ethnicity. In the American context, Kahn and Money (2021) find that people from minoritized backgrounds experience mask-related, race-based social identity threat—that is, the fear that they will be treated differently or devalued because of their ethnicity when wearing a mask. While we did not find clear evidence of such perceptions among our participants, increases in xenophobia, in the

form of physical and verbal abuse, have also been experienced by people of East Asian origin in countries across the world (Ng, 2020), including the UK. As early as March 2020, The Guardian reported people of Chinese origin leaving the UK due to racial hostility, again experienced as being as likely a threat as the coronavirus itself (Weale, 2020).

Despite the real threat to life of mask wearing for people from minoritized backgrounds, there is evidence that Black, Latino, and Asians in the US were more likely to wear a face mask in response to COVID-19 than White men (Hearne & Niño, 2021). It has been suggested that intersections between race and gender and men's conformity to masculine norms could be used to tailor behaviour interventions to men (Mahalik et al., 2021). Whilst our sample was predominantly White, participants did perceive differences in mask-wearing behaviour among ethnic groups, such as greater adherence in some groups (including the East Asian community) or poor adherence in others (including the South Asian community), and used race to frame their experiences in this way. Whilst the UK context of fear around masks may be less politically polarised along racial grounds than the US, it is nevertheless important to account for them in assessing the impacts of masks as a public health intervention, particularly given racial disparities in deaths and illness from COVID-19 (Nguyen et al., 2020).

The notion of altruism as a rationale for wearing masks—and its potential dark side in the form of shame and stigma for those who do not—demonstrates how seemingly simple non-pharmaceutical interventions are often far from straightforward. Complex systems thinking can perhaps help here, in that it reminds us to:

> consider the wider ramifications of intervening and to be aware of the interaction that occurs between components of the intervention as well as between the intervention and the context in which it is implemented.
>
> (Shiell et al., 2008 cited in Paterson et al., 2009, p. 3)

Whatever the impact of mask use on its primary intended 'outcome'—disruption of transmission chains of COVID-19—the wider implications of the policy also merit attention.

Assumptions about the simplicity of non-pharmaceutical interventions are often perpetuated by public health messaging. Many participants felt that the messaging and evidence base around face masks was problematic. The changes of direction by the government regarding face masks were seen as confusing by many participants. Scepticism about the evidence for interventions was not—at least for our sample—founded in an irrational anti-science stance, but rather seemed to arise from an approach to public health messaging by the government that appeared to prefer simple or absolute messages as the best way to communicate science. When these simple messages changed suddenly, without being accompanied by explanations as to why, they created confusion—at least for this group of people who were particularly attuned to changing policies, guidance and evidence around masks. This confusion also appeared to lead to more entrenched positions among some participants who felt let down by the government and that their circumstances were being ignored.

Our findings, therefore, suggest not only that mask mandates and accompanying public health messaging may risk marginalisation of vulnerable groups, but that they may risk deepening existing societal fractures and entrenching opposing positions. This demands care in future approaches to advice, compulsion and discretion in policy around masks and other interventions. Face masks may become part of our primary prevention lexicon for years to come or they may once again become solely the preserve of medical and work safety equipment. Approaches

to encouraging and enforcing their uptake might attend more to adverse consequences, particularly the risk that efforts to instil a sense of mutual obligation can result in unintended harm to those who, for 'legitimate' or 'illegitimate' reasons, fall outside the 'moral community' invoked—and more broadly, may contribute to further fissures in a pluralistic society. Clear and consistent messaging, particularly in relation to exemptions, appears important, especially when the evidence changes; ensuring that all groups understand the rationale for a new decision seems likely to be fruitful in encouraging adoption. Considering and assessing the impact and implication of interventions and modifying or mitigating accordingly is also vital, for example, through Health Impact Assessments (Joffe & Mindell, 2005). Avoiding the use of stigma and shame, even inadvertently as the dark side of encouraging viewing mask wearing as a prosocial or altruistic behaviour, may also be important. Whilst all public health interventions have limitations and many will have unequal impacts across populations, a full assessment of the potential negatives allows for opportunities to mitigate them, for example, through clear messaging or consultation with groups who may be affected.

Besides reducing the risk of marginalisation and harm to those claiming exemption from mask wearing, care in policy and messaging around public health obligations may also bring societal advantage. In the UK, there is evidence of changes in political trust pre-pandemic and during the time of the COVID-19 pandemic (Davies et al., 2021). Although face masks for some were analogous to 'Brexit' in the societal schisms they prompted, there is evidence that those who *trust* political and scientific authority have confidence in the political system and comply with mandates, whereas those who *distrust* are cynical and are more likely to defy legislation. Meanwhile, those who *mistrust*—that is, take a sceptical rather than cynical approach to authority and are judicious about where they place their trust—are vigilant and judge components of the political system with caution, seeking to make informed decisions on their behaviour (Jennings et al., 2021). Since an information-seeking and mistrustful society may be more receptive to efforts to influence health behaviour than a distrustful one (Jennings et al., 2021), efforts to rebuild the credibility of the government—and above all, to explain the rationale for interventions that may seem confusing or appear contradictory and thus provide a basis for conditional trust—may be crucial in improving health and healing divisions. This may mean a need for particular care in messaging for those at most risk of alienation and for whom mistrust may quickly become distrust.

Our study has strengths and limitations. Participants were a self-selecting sample who may have a particular interest in sharing their views on masks. We did, however, specifically recruit from groups who we felt may be underrepresented in these discourses or be more at risk of issues from the use of masks, but their views may not be representative of others in similar positions. Our narrative approach sought to ensure that interviews were led by participants rather than solely by researcher interests. The use of video and email as well as telephone interviews allowed those who preferred to provide their testimony by lip reading or in writing to be included, and this undoubtedly contributed to the richness of the data and the diversity of our participants. One important omission is the views of children, for whom use of face masks is a particularly contentious issue (e.g. Hughes et al., 2021). The study is also bound by the geographical context of our participants, and research in other countries would likely have different relationships with face masks based on existing cultural connotations and prevailing use of masks.

The study adds to the body of evidence on face masks, adding the views of the public around their experiences of using them. These views have been lacking from academic studies conducted during the pandemic, but are vital for our preparation and understanding for any future waves of COVID-19 or other respiratory viruses.

AUTHOR CONTRIBUTIONS

Esmee Hanna: Conceptualization (Lead); Formal analysis (Lead); Methodology (Lead); Project administration (Lead); Writing—original draft (Equal); Writing—review & editing (Equal). **Graham Martin**: Conceptualization (Supporting); Formal analysis (Supporting); Investigation (Supporting); Writing—original draft (Equal); Writing—review & editing (Equal). **Anne Campbell**: Investigation (Equal); Writing—original draft (Supporting); Writing—review & editing (Supporting). **Paris Connolly**: Investigation (Equal); Project administration (Supporting); Writing—review & editing (Supporting). **Kristine Fearon**: Investigation (Equal); Project administration (Supporting); Writing—review & editing (Supporting). **Steven Markham**: Writing—review & editing (Supporting).

DATA AVAILABILITY STATEMENT

Research data are not shared.

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