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Olsen, Dennis (2024) Minority ethnic older adults' perception and behaviour towards COVID-19
public health campaigns in the UK. *Communication & Society*.

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Minority ethnic older adults' perception and behaviour in relation to COVID-19 public health campaigns in the UK

Abstract

In the UK, minority ethnic groups were reported to face the greatest risk from COVID-19. Yet, little is known about their perception and behaviour in relation to the COVID-19 campaigns. This study used 35 semi-structured, in-depth interviews with minority ethnic adults aged 60 or over in England and Wales to explore their motivations for complying with or disregarding official guidance and their evaluations of various campaign content and channels used early in the pandemic. Using Template Analysis, key themes in the interviewees' discourse were identified, which were subsequently analysed using the Theory of Planned Behaviour (TPB). This study found that the predominant motivations for non-compliant behaviour included fatigue from information overload, government- and socially induced distrust, as well as self-reported personality traits. In contrast, compliant individuals emphasised community-based obligations and their trust in official communications. Although participants recognised the pandemic as a challenging time, they were generally unsatisfied with the credibility, consistency, and accessibility of public health messaging. This investigation contributes to health communications studies by adopting a qualitative approach and providing insights into an under-researched demographic.

Keywords

COVID-19, minority ethnic older adults, public health campaign, Theory of Planned Behaviour (TPB), template analysis

Word count: 9123 words

Funding

The authors received funding from the British Academy/Leverhulme (SRG21\211083).

1. Introduction

This paper draws on a British Academy/Leverhulme funded research project (September 2021 - February 2023) in which 35 semi-structured, in-depth interviews were conducted with minority ethnic older adults aged 60 or over in the UK about their perception and behaviour in relation to the COVID-19 public health campaigns. In the UK, minority ethnic groups were reported to have faced the greatest risk from COVID-19 (ONS, 2020, 2022) and yet, little is known about their perception and behaviour in relation to the health communication campaigns at the time. While there is no universal definition for ‘minority ethnic’ (Nielsen & Krasnik, 2010), in this study we follow Bhopal’s (2004) definition of minority ethnic as the social group a person belongs to, and either identifies with or is identified with by others, as a result of a mix of cultural and other factors including language, diet, religion, ancestry, and physical features traditionally associated with race. Despite extensive research about the effects of COVID-19 in various disciplines, the relevance of ethnicity and age has received considerably less academic attention (Lewis *et al.*, 2023). Experiences of older adults with minority ethnic backgrounds need more attention because of the higher levels of disadvantages, inequalities, and exclusions found among this demographic (Zubair & Norris, 2015). For example, within the national vaccination programmes in the UK in 2020 and 2021, the reported vaccine uptake was lower in areas with a higher proportion of minority ethnic populations (Gov.uk, 2021). This study therefore used the method of semi-structured, in-depth interviews to explore minority ethnic groups’ responses to, and their perceptions of, COVID-19 related public health messaging to devise more effective health campaigns in future.

During the COVID-19 pandemic, public health messaging played a central role in raising awareness about health and safety; for example, by disseminating information about social distancing, personal hygiene, and vaccination. Scholars have researched about the COVID-19 pandemic in terms of public responses (see Allington *et al.*, 2022; Bouman *et al.*, 2021; Budd *et al.*, 2020; Halvorsrud *et al.*, 2023; Hodson *et al.*, 2021; Kurten & Beullens, 2021) or (dis)information and social media (see Calvo *et al.*, 2022; Hernández-García & Giménez-Júlvez, 2021). Extant research found that age, socioeconomic conditions, and the source of information were observed as the main factors determining message reception and positive behavioural outcomes (McCloughlin *et al.*, 2023). However, few studies have explored the perception of public health messaging *among* older adults (authors’ emphasis). In addition to this gap in empirical data, most studies on this topic so far have used quantitative or mixed methods to analyse how COVID-19 was perceived and represented in the media (see Guliashvili 2022; Semino, 2021). There is, thus, limited research exploring the breadth of public responses and perceptions, which can be effectively examined using qualitative methods. An exception to this is Al-Jalabneh's (2023) work using in-depth interviews with thirty Jordanian citizens about health misinformation on social media. This study, however, focuses only on the participants who are hesitant about COVID-19 vaccination, whereas our study is not limited to a group of people who share the same vaccine hesitancy. Qualitative research allows for a nuanced exploration of the lived experiences, attitudes, and cultural contexts that shape the understanding of the pandemic among minority ethnic older adults. This approach provides depth and insight into the unique perspectives within this demographic, helping to bridge existing gaps in our understanding and inform more targeted and culturally sensitive interventions going forward.

The Research Questions for this study are as follows:

RQ1: What were the reported motivations of minority ethnic older adults' behaviour in relation to the COVID-19 public health campaigns in 2020 - 2021?

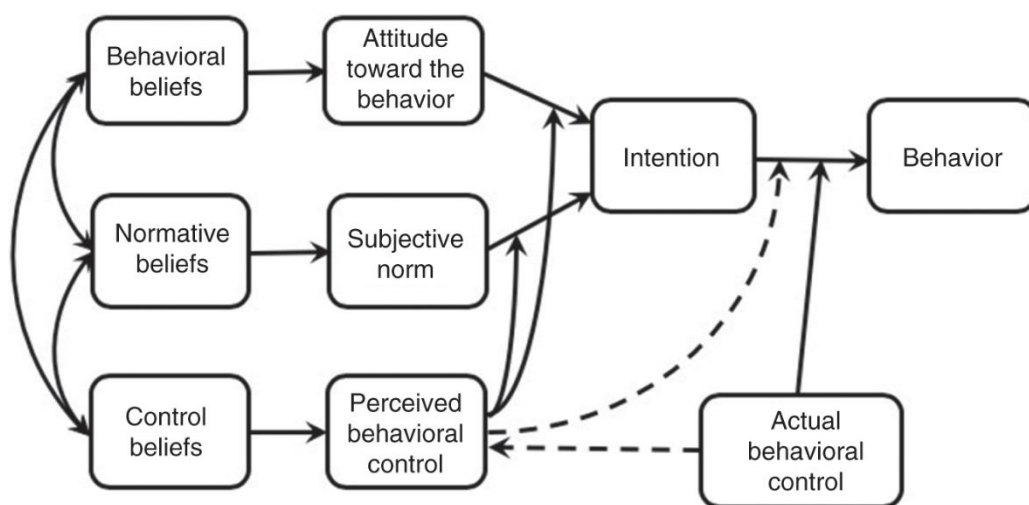
RQ2: How did minority ethnic older adults perceive and evaluate the content of the COVID-19 campaigns in 2020 - 2021 and the media channels they used?

35 semi-structured, in-depth interviews were conducted by the same research assistant in our project team, who also belongs to an ethnic minority. Using Template Analysis, recurring themes were derived from the interview data and further analysed by applying the Theory of Planned Behaviour (hereafter, TPB). Our study thus enhances the understanding of minority ethnic older adults' motivations behind their behaviour in relation to public health campaigns, messaging and guidance, while also contributing to health communications studies by providing qualitative data analysis and insight into a significantly under-researched demographic.

2. Theoretical framework and literature review

According to the Theory of Planned Behaviour (TPB) (Ajzen, 1991; 2012), intentions to perform behaviours of different kinds can be predicted with high accuracy from attitudes towards the behaviour, subjective norms, and perceived behavioural control (Figure 1). TPB postulates a sequence of effects from behavioural, normative, and control beliefs regarding the behaviour to attitudes and subjective norms, which – moderated by perceived behavioural control – lead to the formation of a behavioural intention (Ajzen & Schmidt, 2020). In other words, the likelihood of carrying out certain behaviour depends on intentions, as determined by attitudes and subjective norms about the behaviour, and perceived behavioural control (Gibson *et al.*, 2021). An individual's assessment of whether important referents support or disagree with the behaviour is known as a subjective norm while the perceived difficulty of carrying out the behaviour is known as perceived behavioural control (Rutherford & DeVaney, 2009).

Figure 1. Theory of Planned Behaviour (TPB)



Source: Ajzen (1991, p. 182)

As shown in Figure 1, attitudes, subjective norms, and perceived behavioural control are related to behavioural, normative, and control beliefs and the behaviour. Over the years, studies have shown that TPB has broad utility for all phases of behavioural research across a wide range of health outcomes (Bosnjak *et al.*, 2020; Zoellner *et al.*, 2012). In particular, TPB has provided a framework for understanding and predicting human behaviour, and for designing and evaluating behaviour change interventions (Ajzen & Schmidt, 2020; Madden *et al.*, 1992). More recent studies have also used TPB to analyse human behaviour and compliance with COVID-19-related rules and recommendations (see Gibson *et al.*, 2021; Parsons Leigh *et al.*, 2023; Shanka & Kotecho, 2023; Shmueli, 2021). While studies adopting TPB mostly employ quantitative methods, there are some examples of qualitative studies using TPB in the context of health communications. Brug *et al.* (1995), Barberia *et al.* (2008), Zoellner *et al.* (2012), and Parsons Leigh *et al.* (2023) are such examples. For the current paper, TPB is used as a second stage to analyse the key themes derived from the Template Analysis of 35 semi-structured, in-depth interviews with older adults from minority ethnic backgrounds, thus firmly aligning with the tradition of qualitative TPB studies.

Gibson *et al.* (2021) used a longitudinal design – over a period of three months – with 507 adults in the US and found that positive attitudes towards social distancing increased over time, subjective norms weakened and perceived behavioural control remained stable. They also found that despite an increase in intentions, there was a significant decrease in social distancing behaviour over time. In conclusion, Gibson and colleagues argue that targeting individuals' attitudes, norms and perceived behavioural control may effectively promote protective behaviours intended to mitigate the spread of COVID-19 and similar disease outbreaks. In a similar vein, Parsons Leigh *et al.* (2023) conducted 60 in-depth interviews to examine behavioural beliefs, normative beliefs, and control beliefs, and their influence on behavioural intentions to comply with public health guidelines during the COVID-19 pandemic in Canada. They also investigated how access to, and consumption of, information influences these intentions. More than two thirds of the participants (43 out of 60) perceived individuals in their geographic community to be following public health guidelines adequately while a quarter of the participants (15 out of 60) commented on the unequal impact of restrictions based on socioeconomic factors such as class, race, and age.

When it comes to researching health communications in pandemics, many scholars have investigated social media and online videos. For instance, Bora *et al.* (2018) evaluated a total of 101 YouTube videos about the Zika virus during the recent Zika pandemic between 2015 and 2016. Overall, 70.3% of the videos that they examined were informative, featuring accurate information, but 23.8% of the videos were misleading, with 5.9% of the videos relating to personal experiences. Bora and colleagues argued that the curation and authentication of health information on online video platforms such as YouTube is necessary because videos from trustworthy sources like educational or health organisations are scarce. Although internet videos are popular sources of public health information, they are often unverified and anecdotal (Bora *et al.*, 2018, p. 320). Similarly, Hernández-García and Giménez-Júlvez (2021) analysed a total of 100 YouTube videos in Spanish (collected in August 2020) about the COVID-19 vaccine in terms of the type of authorship, country of publication, tone, hoaxes, and vaccine recommendations. Their study showed that only 74% of the videos they examined were produced by mass media or health professionals. Hoaxes

were detected in 19% of the videos (19 out of 100) and user-generated content, as opposed to that of health professionals, showed a higher probability of hoaxes and a lower positive tone, as well as less evidence of recommendations to pregnant individuals and people aged 60 or over.

In addition, Calvo *et al.* (2022) analysed a viewing network on YouTube to trace the connection between various recommended videos on the platform and determine the content of the videos that compose that network. This research focussed on the data derived from the videos repeated most frequently and with the highest number of views in public Telegram groups of COVID-19 deniers, disseminating disinformation about COVID-19 vaccination during the first week of March 2021 (Calvo *et al.*, 2022, p. 227). They identified characteristics of amateur aesthetic in the videos as well as the frequent appearance of certain personalities who became catalysts for hoaxes and fake news. They also found anti-vaccine discourses that were based on exaggeration, decontextualisation, and manipulation without evidence to support their messages.

A study by Vilar-Lluch *et al.* (2023) focused on health message effectiveness in the UK during COVID-19, analysing the language of official vaccination campaigns and speeches as well as the health message preferences of vaccinated/unvaccinated and vaccine sceptic individuals. A combination of corpus assisted discourse analysis and an online survey enabled the examination of health message delivery and reception. Interestingly, the results showed that fully vaccinated and unvaccinated respondents did not display any significant differences in relation to message preference, apart from moralising messages. Fully vaccinated individuals preferred messaging that used high imposition (e.g., “you must wear a face covering”) slightly more than vaccine sceptic individuals. However, both respondent groups preferred messaging that was accurate, informative and from a reliable source. Unvaccinated participants showed a slight preference for relatable messaging over source reliability.

Adolphs *et al.* (2023), in turn, reporting on the same research programme around the delivery and reception of UK COVID-19 public messaging, suggest various guidelines for health message writers. These include communicating about the health threat honestly while empowering the public, making the message personal, and providing illustrative comparisons. Secondly, engaging with the public and building unity by promoting inclusivity whilst acknowledging social and individual differences and different social values as well as audience diversity. Thirdly, in terms of the message accessibility, they urge health messaging to use transparent language, prioritise brevity, provide specific actions and outcomes and be consistent, providing a clear explanation of any changes to the guidance/message, as well as making use of translations and accessible material.

A comparative multimodal critical discourse analytic study was conducted by Islentyeva and Scheffler (2023), of official COVID-19 vaccination posters from Australia, the UK, Austria, and Germany. They examined the interrelation of ideology and persuasion in the campaigns and found two key strategies employed: 1) provision of a sense of solidarity and community, and 2) issuing of warnings and eliciting a sense of fear. Whilst the German-speaking countries tended to foreground community and solidarity in the posters’ discourse and images, the Anglophone discourse more prominently involved strategies of fear and warning, often centring on the provision of information and individual responsibility. Islentyeva and Scheffler suggest that what linked all the campaigns, however, was the ideology of neoliberalism. Some of the posters analysed in their study correspond with our data, and we will return to some of these themes in our findings and discussion section.

3. Method

3.1 Data collection

Following the first author's institutional research ethics committee's approval, 35 semi-structured, in-depth interviews with minority ethnic older adults were conducted during the summer of 2022 (June – July). The majority of these interviews (N=28) were conducted through the online video platform Zoom, while the remaining seven were carried out via telephone to accommodate participants' preferences. All interviews were audio-recorded for subsequent transcription. The average duration of each interview was 50 minutes. The participants included individuals aged between 60 and 77, comprising 20 females and 15 males. Among them, 29 spoke English as their first language, and 31 had received the COVID-19 vaccination. The sampling and recruitment process was conducted by a professional recruitment agency in England, funded by the British Academy/Leverhulme research grant. 21 out of 35 participants resided in the Greater London area, with the remaining participants located across England and Wales. There were thirteen participants who identified themselves as Black, African, Black British, Caribbean and any other Black background; eleven from Mixed or Multiple ethnic groups; six from Asian or Asian British; and five from another ethnic group.

The interview questions covered largely two areas, that is, behaviour in relation to the COVID-19 campaigns and evaluation of health messaging (please see Appendix for the interview questions). Questions about the participants' motivations to comply with the rules (or not) (e.g., social distancing, vaccines) were designed to unfold their attitudes and beliefs influencing their behaviours. Regarding the health messaging, we focused on the participant's recollection and reaction to the NHS COVID-19 bulletins and their reactions to three distinct campaigns running in the UK between 2020 and 2021, as shown below.

Figure 2. Stay Home This Bank Holiday Weekend campaign



Source: NHS (2020)

Figure 3. Stay Alert, Control the Virus campaign



Source: NHS (2020)

Figure 4. Look them in the eyes campaign



Source: NHS (2021)

The “Stay Home This Bank Holiday Weekend” campaign (Figure 2) aimed to encourage and strongly urge people to stay home during the Bank Holiday weekends in May 2020. The “Stay Alert, Control the Virus” campaign (Figure 3) was released later in the same year to emphasise the importance of social distancing, self-isolation, and personal hygiene. Released in January 2021, during the UK’s third national lockdown, the “Look them in the eyes” campaign (Figure 4) still carried the slogan of “Stay Home, Protect the NHS, and Save Lives”, targeting two groups, namely, those who bend the rules and those who ignore the rules because they do not believe that the risk of COVID-19 is real or a personal threat to them (Magee, 2021). For the semi-structured, in-depth interviews, the poster element of each campaign was shared with participants. The decision to choose the poster was based on its convenience for sending the image by post to participants prior to the interview.

3.2 Method of analysis

The transcription of all interviews involved a two-step process. Firstly, using the software solution Otter.ai, first drafts of the transcripts were created. Subsequently, the research team manually scanned and corrected any errors. Qualitative Template Analysis, as originally put forward by King (2012), was chosen to analyse the interviews. Template Analysis focuses on identifying “the recurrent and distinctive features of participants’ accounts, characterising perceptions and/or experiences that the research sees as relevant to the research questions”

(King & Brooks, 2017, p. 150). To establish the initial template, six transcripts were chosen at random and coded by the research team, following the instructions provided by King (2012) and King and Brooks (2017). By iterating between the transcripts and the categories of themes/sub-themes, the template as shown below was agreed upon (Table 1).

Table 1. Template

<p>Reasons for not complying with the rules and recommendations (social distancing, isolating, vaccine etc.)</p>	<p>A. Government-induced reactance/distrust</p> <p>B. Information overload</p> <p>C. Information type</p> <p>D. Socially induced distrust</p> <p>E. Health concern</p> <p>F. Distrust of scientific progress / vaccine development</p> <p>G. Personality traits</p>
<p>Reasons for complying with the rules and recommendations (social distancing, isolating, vaccine etc.)</p>	<p>H. Self-preservation / fear / ease of mind</p> <p>I. Social responsibility</p> <p>J. Message delivered by perceived trustworthy source</p> <p>K. Not wanting to make compromises (travel restrictions etc.)</p> <p>L. Practicalities</p> <p>M. Access to information (media consumption etc.)</p>
<p>Evaluation and improvement for communications</p>	<p>N. Content-related (Quality of information, Persuasiveness, Target audience etc.)</p> <p>O. Channel-related (Media, Timing, Frequency etc.)</p>

Following the creation of the agreed-upon template, the remaining interviews were analysed, and the template refined where needed. The findings of the fully conducted template analysis are discussed in the following section.

4. Findings and discussion

As a result of the Template Analysis, three key themes were identified – barriers for the non-compliant, motivations for the compliant, and evaluations of communications. With several data extracts from the semi-structured, in-depth interviews (and the Template Analysis coding in brackets), the following discussion illuminates the participants' perception and behaviour in relation to COVID-19 public health messaging and the various rules imposed on them. All participant names are pseudonyms to ensure anonymity.

4.1 Theme 1: *Barriers for the non-compliant*

For those who did not comply with the rules and recommendations, there was a recurring theme of distrust – both government-induced (A) and socially-induced (D) – as well as fatigue from information overload (B), with participants finding that, when it came to the rules of social distancing and the lockdowns, “somebody's [constantly] going to talk about it. I just got fed up hearing it” (Helen, 63 years old). A common attitude among participants was that complying to the best of one's abilities was seen as the correct approach to engaging with official rules and recommendations. This perspective, which viewed compliance in a less categorical way and more as an individual's judgement, regularly led to situational non-compliance – which was not perceived as non-conformance by participants. For instance, Martin (64 years old) insisted that he “did respect the rules. I didn't disrespect the rules.” However, he also recalls that “there were times that I've forgotten [what the rules were]”, yet he did not let this hinder his daily activities, such as going to the shops or going out for a walk, accepting in the moment that he might not be adhering to the current rules and recommendations.

Many of the participants also commented on side effects of vaccines (F) and mixed messaging in the public health campaigns (posters) that were shown during the interviews, and also more generally. These barriers thus seemed to have come from a lack of trust, which was either induced by the government's public health messaging about the vaccines or socially by witnessing and hearing about the side effects, for example, among friends and family. Participants frequently shared their health concerns and doubts about the sufficiency of time allocated for the vaccine's development (F). Some expressed that they “thought it was a bit rushed” (Helen, 63 years old) and that “it [normally] takes years to, you know, devise a reliable vaccine” (Michelle, 65 years old). Additionally, some participants simply referred to their personality traits (G) as the reasons behind their actions (of not complying with the recommendations).

For example, Maria (67 years old) had observed that “it was just fear that propelled a lot of people to say, oh, I'm going to get the vaccine, because apparently, you're in a

vulnerable group, if you're this age, and have other health conditions. So, a lot of people just ran for it.” Whereas Joan (66 years old) was concerned because, “at the beginning, when people have been vaccinated, you would hear about blood clots, side effects, stuff like that. There are too many side effects ... I was concerned about the side effects. And I've had family members who have taken the vaccine, like one dose of vaccine, and they're not well at all.” Distrust concerning perceived transparency in official communication emerged as the predominant recurring theme among non-compliant participants. For example, Maria (67 years old) criticised the lack of mainstream media attention given to the potentially negative impacts of the rules and recommendations, including the rollout of new vaccines. This lack of coverage further fuelled her suspicion and reinforced her non-compliant behaviour, which aligned with her general scepticism towards new, unknown things. Maria admitted, “yeah, I'm [a] sceptic,” further elaborating, “the thing that gets me is when people die. They're never related to, let's say, the vaccine. It's never been attributed, officially, that this person died as a result of taking the vaccine, so they [the government] need to acknowledge that this thing does happen. ... At first, I was, yes. But now I'm thinking, I'm not going to have the injection. Full stop.”

Similarly, Michelle (65 years old) expressed her hesitancy, citing previous pandemics, a lack of perceived transparent communication, and consequent mistrust: “[I] don't trust it, and my daughter has not had the vaccine and no way are my grandchildren going to have the vaccine. I just don't trust it. Because it's when you think back. We're suspicious as well. When you think back to AIDS, it was found in Africa. And my theory is other people's theories, it was put there ... another thing why I didn't want it anyway, because what I've told you, but I had a blood clot 13 years ago. And so, I've spent a lot of time in hospital with a major operation, I couldn't go down that road again. So that's just the side effects from it.”

An earlier study concerning the UK by Vilar-Lluch *et al.* (2023), found that unvaccinated and sceptic participants reported lower levels of compliance with all health messages from the official vaccination campaigns. Similar to this, in our data, those who were not compliant showed a lack of trust of the official communications, with their preferences firmly placed on science. Paul (72 years old) is an example. He said, ‘I wouldn't trust information coming directly from the government as a source. I tend to be confident with anything that's coming from people who have science, and they dispose of it, they can tell you what's more ... when I'm being told from a source that isn't scientifically based, that makes me feel suspicious of that lack of information’.

To sum up, for the non-compliant, distrust – both government-induced and socially-induced – and fatigue from information overload became the barriers in between their own evaluations of the situations and desired outcomes from their viewpoints. In addition, the overall lack of trust about the sheer speed of scientific progress such as the invention of COVID-19 vaccines and the roll-out without sufficient testing and personality traits seemed to provide emotional and behavioural barriers in terms of compliance.

4.2 Theme 2: Motivations for the compliant

For those who were compliant with the rules and recommendations, the recurring themes were about self-preservation (especially, health) (H), social responsibility (I), and the perception of trustworthy official communications (J). These participants expressed how

strongly they felt about a sense of community and their own responsibility to protect their families and the wider community. They regarded the NHS public health messaging very highly and therefore construed it as the only rational thing to do to follow the government's official communications. This is also what these participants think others in the wider community should do as well. Interestingly enough, not many participants brought in aspects of ethnic minority identity. Instead, more focus was placed on individuals and their families within a community, regardless of ethnic background.

For example, Barry (61 years old) explained, "I didn't want to be picking up or getting any infections. I come from a large family. My children are adults. I didn't want to catch an infection ... it was something that I was doing to protect myself and my family." Harini (68 years old) reported having considered the pros and cons against his health status and reaching his decision in discussions with others: "Well, it was basically the consequences of not getting the vaccine because I am also diabetic, and the consequences of not getting vaccinated was scarier than getting the vaccine. So, I suppose I discussed a lot amongst the elderly, ladies and gents around the family and others' general opinion. Never mind, let's all get vaccinated."

Protecting the wider community (I) and being a part of the solution (I) were an important aspect of what motivated participants to comply with official rules and recommendations, including to get vaccinated. Ryan (66 years old) recalled "vividly" his reason to adhere to the official messaging right from the start of the pandemic: "If we, the public, did our bit, it will have that knock on effect of helping the NHS basically ... For me, it was just, you know, you follow these guidelines." Similarly, Magda (69 years old) reflected on her mindset at the time, homing in on the government's appeal to get vaccinated: "I think vaccinations are a miracle, and I appreciate that. Really, most of the world doesn't have access to them and has suffered and continues to suffer. Obscenely ... I think of it [vaccinations] more as me protecting others, than protecting myself, it's nice for me to get some immunity, but I'm on my way out, I'm not on my way in, but I have contact with people and the least I can do to be collectively responsible and conscientious is to ensure that I am not in a position to infect anybody with anything, then they might be vulnerable to and cause them lifelong problems, or even shortened life expectancy ... I'm grateful that vaccines are my role in society to do my bit. And that is the least I can do is get the vaccine as quickly as possible. So that I am not a spreader."

For many participants, following the rules and regulations was contingent on their perceived trust in the source of information (J). Few expressed high levels of trust in official communications, such as Madhav (62 years old), who remarked: "Yes, to be very honest, we find from our country [the UK] that the information they give is so perfect and so correct." However, most compliant participants adopted a more critical stance. They frequently assumed that the government had a hidden – or not-so-hidden – agenda when introducing, changing, or rescinding official rules and recommendations. This assumption made politicians less trustworthy in their eyes, a distrust seemingly exacerbated by the government's tarnished reputation regarding adequate healthcare spending prior to the pandemic. For instance, Jane (61 years old) remarked on the challenging relationship between politics and the healthcare system in the UK: "The NHS is a fantastic public institution that the government has never been protecting ... There's a disconnect. You [politicians] think it is brilliant now, but you've tried to strip it of everything it needs ... In hospitals, they haven't got the equipment. And that's why there is, I think, a lack of trust in the government."

A common approach among participants was to distinguish between politicians announcing and urging adherence to rules and those messages being communicated by scientific leaders, such as the Chief Medical Officer or his deputies at the time. This distinction seemed to have intensified throughout the pandemic with media disclosures of rule violations by political advisors and high-ranking politicians, up to the then Prime Minister, Boris Johnson, himself. Paul (72 years old) remembered that “after ‘partygate’ [...the trust] was completely lost. Because, if the person himself [PM Boris Johnson] ... was happy to do that, putting himself and others at risk, then, obviously, all credibility went at that point.”

The perception of trustworthy official communications was, thus, a notable motive for complying with official guidance for these participants. For those who were compliant, self-preservation (especially, health) and social responsibility (protecting family and wider community) played a significant role in determining their behaviours. This formulated their expectations for others, which means the compliance of official guidance forms subjective norms for them.

4.3 Theme 3: Evaluations of communications

Regarding the COVID-19 related communications, there were mixed responses, with access to information the most important factor to evaluate the effectiveness of communications. Some participants used the word ‘fear mongering’ to describe the tone of the NHS communications (N), while many commented on how inconsistent or confusing the messages were (N). For example, Lewis (67 years old) talked about the prominence of public health communications, saying, “they were just in your face all the time. You know, this is just a constant, constant, constant ... you know, it was just classic persuasion ... there was no alternative view. That was the view.” Although Lewis found it somewhat overwhelming, he nevertheless complied with the guidance. Joan (66 years old), on the other hand, was critical of what she saw as too frequent changes and inconsistencies in the guidance: “to me, it didn't make sense. You know, I've lost track of when the Chief Medical Officer said what, but it was like one time you could go out, then next, you can go in the garden, then you can't go in the garden, you can't see [anyone]; you know, it was so I'm thinking what's going on, I can't take all this, this is too much. So, I just did what I felt I needed to do to keep myself safe.” Vilma (69 years old), in turn, acknowledged that the constant bombardment of information could result in resentment: “they've missed this awareness and sensitivity to people resenting being told what to do, even though it's good for them, and they probably do need to be told what to do.”

At the same time, other participants found the repetitive nature of the communications to facilitate key messages, making them easy to remember and thus effective. According to Lewis (66 years old), “I think it [the campaign] was just repeating. And I think to be fair, that perhaps the best way it sunk in with me was just the constant reminder, repeating the same message. ... It didn't go off track, it was that simple basic message: stay at home, protect the NHS, and start distancing apart. It was simple. You know, simple is repetitive. And it just made it easy to sort of remember it.” Ranjit (68 years old) agreed that simple messaging was effective: “I think it's as if the information is there too for you basically, how they want to control how the virus was spreading. So, this was making you aware that if you do these following things, you're likely to avoid catching COVID. And it's very informative, very simple. And nothing in there, which wasn't difficult to do.” Pam (60 years old) also

emphasised the need for simplicity in messaging: “you know, these poor people may not have ended up in hospital or lost their lives, if we had just been short, sharp and simple, right at the start.”

Most participants felt a strong sense of helplessness and frustration due to the lack of control under the circumstances. Participants who regarded the campaigns as ineffective also showed a high level of government-induced distrust. Uzi (63 years old), for example, stressed, “I think I understand where they're coming from. The government has a job to drive the population to follow a certain line, they've agreed on that, but I think it's been used to manipulate the population ... intrusion into civil liberties and manipulating to accept lockdown.”

Meanwhile, others found the campaigns were not effective because the message was about imposing certain behaviours (e.g., wearing masks) to protect others instead of themselves and their family. A shared assumption by many participants was that shifting the focus of the health messaging on self-preservation might have increased compliance by themselves and those around them. Mahira (68 years old) is an example: “I think that the main thing that was wrong was the fact that the government said that you should wear a mask to protect others. And judging from what I've seen, I don't think people care about other people, they only care about themselves. So, whether it was true or not, that's beside the point. I think the government should have said: because we didn't know any difference, you should wear a mask to protect yourself and your family.”

Underneath the negative or mixed feelings about the overall communications strategy, there was a certain level of understanding about how challenging and unprecedented the situation was. Paul (72 years old), in response to Figure 4, rationalised: “So difficult thing to have a good balance? Over-dramatising in terms of like, the way in which it's being trailed on, if you know what I mean. You're overextending the drama of trying to understand the outcome of people's irresponsibility, I suppose, was a levelling issue. So, it's saying, like, could you look this person in the face? ... And blah, blah, blah, you know, the thing about, you know, if you didn't take the fullest responsibility, in every conceivable way, could you particularly I think it was referring to immunisation. So, it was kind of like that. And that might have had a kickback against that kind of approach. I don't know. But, I mean, I've already had the resolve to get inoculated to get the jab so that other people may be wavering should we say.”

In contrast to Kalocsányiová *et al.* (2021), in our study most participants found that the use of outdoor media was not effective. It was also clear that the perceived trust of the message-sender was critical to the effective communications. Ranjit (68 years old) alluded to some people's potential ignorance to public health messaging: “there are still more cases coming up. ... they're getting sick. But to them, for some reason, this advertising is not affecting them, the posters will not be affecting them, because they never read that, or they will never appreciate what's written on. So, posters have a meaning to somebody who is educated and can see the image and make that. Oh, but there's a culture of people who don't want to see that side of it. They just want to stay away from it. They say, oh, well, whatever happens, it will happen to me.”

It was notable that effective communication seemingly relied less on relatability through ordinary stories and more on the authoritative voices of science leaders and central community figures, such as on-the-ground healthcare professionals and religious leaders.

Paul (72 years old) emphasised, “The medical profession ... would be my primary influence at the outset, who was giving any accurate, reliable information.” He echoed a sentiment shared by several participants who turned to scientific leaders rather than politicians informing their behaviour towards rules and guidelines at the time. Regarding the influence of religious figures, Mahira (68 years old) noted the general distrust in the government as a reliable source of information and how others stepped into this communication gap: “And I think that's possibly why religious leaders got involved. They still had their congregations online. That was the main influence on people because they could see their leader ... you get your influence from your leader from your group. I just wished that the government would have been more prepared.”

One of the central emotional responses during a pandemic is fear, and the proliferation of conspiracy theories, fake news, misinformation, and a general – or at least targeted – mistrust of official health advice makes it increasingly difficult for the public to fully engage with the COVID-19 health risk (van Bavel *et al.*, 2020). We have seen that the form, content and delivery of health messaging itself is seen as significant in evaluating its effectiveness and relevance for our participants.

4.4 Other emergent themes on ethnicity, age and information source

As mentioned in the introduction of this paper, we adopted an in-depth interview method to explore potential links between ethnicity and behaviour. This approach was informed by official statistics suggesting possible connections between these two factors. However, aspects of ethnicity were not raised in most interviews. Instead, participants more frequently mentioned individual factors such as age, health conditions, disability, and a sense of community as being relevant to their behaviour toward COVID-19 public health messaging.

This was also touched upon in the earlier discussion in Section 4.2. As a response to Figure 4, Lauren (66 years old) explained: “for me, this isn't about portraying ethnicity, it is portraying, again, for me portraying the dangers that disease can have on people if we don't follow the rules. Best, this is what I'm seeing here rather than a black person, or white female, white male. I'm just seeing how dangerous this was.”

An exception to this was when there was an authority figure who was considered having a similar ethnic background, such as in the reply by Ezra (72 years old): “I used to listen to all the broadcasts that were made by the government ... and I must be honest, I took a great liking to Professor Van-Tam [the Deputy Chief Medical Officer for England at the time]. ... I think both his background and I's [mine] because I remember him saying, there was a big issue because ethnic minorities were being hit harder. Particularly that was the early reports anyway, and I remember Professor Van-Tam saying, ‘I am from an ethnic background and concerned about this’, so I always found him honest. And he presented his point of view clearly. And I remember him being the one who gave his mother the first vaccine. That was her first dose of the vaccine on TV. So I said, look, the guy is giving it to his mum.”

There was a distinct narrative throughout many interviews that older people needed more protection. Although the participants did not often seem to consider themselves old,

they were very insistent on other people looking out for one another and for older people. Mahira (68 years old) mentioned care homes in particular: “you know, I mean, I think the most important because, with the age groups, you know, and care homes, those people are ill, and they're on their last legs anyway.”

Overall, the participants' views echoed some of the proposed recommendations of Adolphs *et al.*'s (2023) study in that ideal health messaging was perceived to be honest and personally relevant to the recipient, whilst building unity and inclusiveness. In addition, simple explanatory message form was generally favoured but ones inducing fear not necessarily effective and consistent messaging was highly regarded. This reaffirms the usefulness of Luzón's (2022, p. 99) concept of “pandemic explainers”, which provides background information intended to help the wider public to understand complex news topics. In light of the findings by Islentyeva and Scheffler (2023), our insights indicate that the communication strategy employed in the UK for vaccine advertising, which prominently featured fear and warnings, did not resonate well with our participants. It appears that minority ethnic older adults might have preferred the communication approach observed in German-speaking countries, which focused on fostering a sense of community and solidarity.

4.5 Applying TPB to the themes

For those interviewees who were non-compliant, their expressions of distrust, both government-induced and socially induced, and fatigue from information overload reflected their behavioural beliefs. Similar to Parsons Leigh *et al.* (2023), we considered that behavioural beliefs reflected individual evaluation of how they have adapted to their situations. There was, thus, a strong sense of barriers in between their behavioural beliefs and the desired behavioural outcomes from the campaigns. These feelings came out in the form of frustration, distrust and fatigue. On the other hand, for those who were compliant, their normative beliefs influenced subjective norms, which subsequently led to their intentions of adhering to the official guidance. Generally, subjective norms are assumed to assess the social pressures on individuals to perform or not perform a particular behaviour (Ajzen, 1991). As discussed earlier, subjective norms consist of an individual's beliefs about whether others think that they should engage in the behaviour. In other words, subjective norms and normative beliefs are likely to assess the social pressures on individuals to carry out a certain behaviour or not.

Regarding Theme 3 on the evaluations of communications, the participants shared their concerns about the lack of credibility, consistency, and accessibility of information about COVID-19 campaigns. This shows that many felt that they could not receive credible and consistent information through public health messaging, or, specifically, from politicians or the government. According to TPB, control is achieved through relevant resources and opportunities for a given behaviour (Madden *et al.*, 1992). Their lack of control beliefs in the campaigns thus resulted in overall negative reception of the campaign content and the channels used.

5. Conclusion

A series of individual semi-structured, in-depth interviews were subjected to Template Analysis, and subsequently analysed by applying the key concepts of TPB such as behavioural beliefs, normative beliefs, and control beliefs. Firstly, for the RQ1, we found that the reported motivations of minority ethnic older adults' non-compliance to the COVID-19 related guidance were distrust, both government-induced and socially induced, fatigue from information overload, and personal traits. For those who were compliant with the official guidance, their reported motivations included self-preservation (especially, health), social responsibility (protecting family and wider community), and the perception of trustworthy official communications. Here, behavioural beliefs seemed to play a key role for non-compliant people in terms of their motivations. Their responses about social distancing, personal hygiene, and vaccine uptake were the manifestation of several influencing factors such as fatigue from information overload, government-induced and socially induced distrust, and personality traits. Meanwhile, those who were compliant with the rules emphasised their responsibilities, a sense of community, and trust in official communications. They believed others should act the same way to protect the community, reflecting their normative beliefs leading to subjective norms.

Secondly, for the RQ2, despite mixed responses from the participants, the accessibility of information turned out to be the most important factor when it came to the effectiveness of health communications. Most participants acknowledged that the COVID-19 pandemic was an extremely challenging situation to devise and effectively disseminate communications. However, they perceived the communications content and the channels used as somewhat inconsistent, confusing, or fear-provoking. It seems that their control beliefs were shown in their comments about the lack of credibility, consistency, or accessibility of information in the COVID-19 related public health messaging.

This study contributes to the advancement of understanding of how members of the public (in this case ethnic minority older adults) received the public health messaging using qualitative methods. Existing studies primarily focus on quantitative research about how COVID-19 was perceived in the media (e.g., Guliashvili 2022; Semino, 2021). It is particularly useful to understand ethnic minority older adults' lived experiences throughout the pandemic period. By adopting TPB, the study sheds light on how to create an intervention to motivate desired behaviour (e.g., vaccine uptake) in future health crises. Our findings demonstrate that an effective public health messaging and communications need to focus on how best to influence behavioural beliefs and control beliefs.

5.1 Limitations and Future Directions

This study uses rigorous qualitative research (semi-structured, in-depth interviews and Template Analysis) and fills the gap in the literature on understanding minority ethnic older adults' motivations and behavioural beliefs related to COVID-19 public health messaging. However, it is not without its limitations. Firstly, the size of our sample was relatively small due to the restraints of resources. Secondly, as the length of the funded project was only 18 months, it was not possible to conduct a longitudinal study to examine changes in attitudes or behaviours, covering pre-, during- and post-COVID periods. More recent NHS campaigns in the UK (e.g., "Get Boosted Now", "We've Been Boosted") (Gov.uk, 2022) show a more

positive and informative frame to relieve widespread negative emotion. Future research could investigate how public health messaging has changed over time to design more effective communications. Thirdly, as mentioned earlier, TPB has primarily been used in quantitative studies for proposing predictive modelling of behaviour. As our research data came from qualitative interviews, this prevented predictive modelling and instead, we focused on the interpretation and analysis of data, based on the key themes and TPB core constructs.

Declaration of Conflicting Interests

The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Acknowledgement

The authors would like to thank our research assistant, Racheal Aina, for conducting the semi-structured, in-depth interviews and transcription.

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Appendix

Interview questions

1. Background demographics

- Please could you confirm your age?
- How would you describe your ethnic background?
- What is your gender identification?
- What is /are your first language(s)?
- Where were you born? Where do you live now?
- What is your marital status?
- What is your occupation? If retired, previous occupation?

2. Covid-19 vaccination status and reasons behind it

- Have you been vaccinated against Covid-19? (if yes, How many jabs?)
- What are the main reasons you have / have not been vaccinated against Covid-19?
- What or who do you think have been the main influences for your decision to take / not take Covid-19 vaccinations?
- Can you remember seeing government Covid-19 information bulletins on TV during the pandemic? Yes/no
 - a. If not, what would you have liked to hear/see?
 - b. If yes, what do you remember about these bulletins?
 - c. Did you think they were informative?
 - d. How did they influence your behaviour?

3. Can you remember seeing any posters about the pandemic or Covid-19 vaccinations? Yes/no

- If not, what would you have liked to hear/see?
- If yes, what do you remember about those posters?
- Did you think they were informative?
- How did they influence your behaviour?

4. Reactions to posters

- Show poster no 1. (Stay Home)
 - a. First reaction to this poster?
 - b. Do you like it? Why / why not? What do you like / do you not like about it?
 - c. Do you think it would influence your decision to take the vaccine? Is it persuasive?
 - d. How relevant do you find it to you?
 - e. How relevant do you find it to your community?

- Show poster no 2. (Stay Alert) Same questions.
- Show posters no 3. (Look Him/Her in the Eyes) Same questions.