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Impact of the government's restrictions and guidance in relation to "social distancing" on the lives of ethnic minority populations: A mixed methods study

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Abstract

Background and Aims: The impacts of the COVID-19 pandemic have not been equal, with a disproportionate impact among ethnic minority communities. Structural inequalities in social determinants of health such as housing and employment have contributed to COVID-19's impact on deprived communities, including many ethnic minority communities. To compare (1) how the UK government's "social distancing" restrictions and guidance were perceived and implemented by ethnic minority populations compared to white populations, (2) the impact of restrictions and guidance upon these groups.

Methods: An explanatory sequential mixed methods study incorporated a quantitative survey and qualitative semi-structured interviews to explore individual perceptions and experiences of COVID-19 and the national restrictions. Survey participants ($n = 1587$) were recruited from North West England; 60 (4%) participants were from ethnic minority communities. Forty-nine interviews were conducted; 19 (39%) participants were from ethnic minority communities. Interviews were transcribed verbatim and analysed using a thematic approach. Data collection was between April and August 2020.

Results: Significant differences in demographics and household overcrowding were observed between white vs ethnic minority survey respondents, who were also significantly less confident in their knowledge of COVID-19, less likely to be high-risk drinkers, and marginally more likely to have experienced job loss and/or reduced household income. There were no group differences in wellbeing, perceptions, or nonfinancial impacts. Two inter-related themes included: (1) government guidance, incorporating people's knowledge and understanding of the guidance and their confusion/frustration over messaging; (2) the impacts of restrictions on keyworkers, home-schooling, working from home and changes in lifestyle/wellbeing.

Conclusions: Further research is needed on the long-term impacts of COVID-19 on ethnic minority communities. If policy responses to COVID-19 are to benefit ethnic minority communities, there is a need for future studies to consider fundamental societal issues, such as the role of housing and economic disadvantage.

KEYWORDS
Covid-19, ethnic minority, government restrictions, social distancing

1 | INTRODUCTION

Globally, the coronavirus severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (COVID-19) pandemic has caused unprecedented disruption, impacting on communities, livelihoods, and economies across the world.[1] In the United Kingdom, the North West has the second highest number of deaths following COVID-19 of any region in England (Public Health England [PHE], 2021).[2] The World Health Organisation declared the pandemic on the March 11, 2020 (WHO, 2020). Following this the UK government imposed its first official advice on controlling the virus by announcing the introduction of "social distancing" on March 16, 2020, closure of hospitality on March 20, 2020, and nationwide restrictions on leaving home on the March 23, 2020.[3] These restrictions only allowed people to leave home for essential reasons, such as, food shopping, daily exercise, or for healthcare. In England, these restrictions included all schools being closed with education moving to home-schooling, all non-essential workplaces to close with staff to work from home where possible. Keyworkers including all National Health Service (NHS) and social care staff, essential public services staff, public safety and national security staff, transport and border workers, education and childcare workers, critical personnel in the production and distribution of food and drink and front-line local authority staff and volunteers were able to work in their usual working environments. The first set of restrictions lasted 7 weeks and then gradually eased from the 10th May, with the guidance changing from "stay at home" to "stay alert" and the "rule of six" mixing outdoors.[4] Restrictions eased for a final time on 4th July, allowing up to two households to mix indoors and the hospitality industry (i.e., hotels, pubs, and restaurants) to reopen with social distancing measures in place.[5]

"Social distancing" is a public health intervention that has been utilised in previous pandemics to reduce the transmission and delay the spread of the viruses.[6] It is based on an understanding of the physics of respiratory droplets, which were felt to be the primary source of transmission of COVID-19 and other respiratory illnesses. Within the current pandemic, "social distancing"—defined as the reduction of time spent with, and maintaining a distance of two metres from, people outside one's household (or support bubble)—has emerged as a crucial focus point of much of the United Kingdom government's guidance surrounding the control of the virus, and considered essential to stop the spread of the virus.[7]

The impacts of COVID-19 pandemic have not been equal, with a disproportionate impact among ethnic minority communities world-wide.[8,9] Structural inequalities in social determinants of health such as housing and employment[10] have contributed to COVID-19's impact on deprived communities, including many ethnic minority communities, across the North West.[11] Death rates from COVID-19 were highest among people of ethnic minority groups[12-14] compared with those of White ethnic background.[15,16] Data from early in the pandemic found that of the first 119 NHS staff who died due to COVID-19, 64% were from ethnic minority backgrounds.[17,18]

Multiple factors including genetics, comorbidities, and lifestyle and cultural variations play a role in the likelihood of contracting and experiencing severe morbidity (or mortality) due to the SARS-CoV-2 virus.[19,20] Ethnic classification systems have limitations but have been used to explore genetic and other population differences. The risk of severe illness, hospitalisation, and even mortality as a result of COVID-19 has been shown to be higher for individuals with comorbidities such as type II diabetes and hypertension,[21] which are more common in ethnic minority populations[22] and might explain their higher incidence and severity of COVID-19.[23] As COVID-19 spreads to areas with large diverse populations, particularly in developing countries, under-standing how ethnicity affects COVID-19 outcomes is essential.

Living conditions such as overcrowding are a risk factor for ill health,[10] including from COVID-19.[24,25] In the North West, over-crowding affects only 1% of White British households, compared to 9% of nonwhite British households.[26] Similarly, to the wider UK, 2% of White British households are affected by overcrowding compared with 11% of Asian households.[27] Key influences of overcrowding tend to be low income, multigenerational living, high numbers of children and living in densely-populated urban areas, all of which are factors common in many ethnic minority communities.[25] Low income and deprivation have also been associated with COVID-19 infection and the severity of disease experienced.[28] Ethnic minorities in total make up 91% of the people living in the most deprived neighbour-hoods in England, with 15% being Asian people, and 15% being Black people.[29] Both overcrowding and low income pose complexities in following government guidance surrounding social distancing. Living in overcrowded conditions and with limited outdoor space makes compliance very challenging and increases the risk to the elderly cohabitants in multigenerational households. People with low incomes tend to be employed in occupations where they cannot

work from home and are more likely to come into contact with other people, for example as bus drivers, in retail and as health care workers.[30] A recent study looked at how the pandemic affected lives of people from the Muslim community living in the North West of England[31] and highlighted that the virus and associated imposed restrictions had negative impacts on the psychological wellbeing of participants, their families and the wider community.

Ethnicity could interplay with virus spread through cultural, behavioural, and societal differences including lower socio-economic status, health-seeking behaviour, and intergenerational cohabitation.[9] Disentangling the relative importance of these factors requires both prospective studies, focusing on quantifying absolute risks and outcomes, and qualitative studies of behaviours and responses to pandemic control messages. If ethnicity is indeed associated with worse health outcomes due to people's understanding of the guidance and restrictions, this must inform public health interventions globally. With the COVID-19 pandemic being a current public health emergency affecting higher numbers of people from ethnic minority communities,[32] information is needed about how government advice has impacted on individuals from ethnic minority populations compared to white populations.

2 | AIMS AND OBJECTIVES

The aim of this study was to compare how government restrictions and guidance in relation to "social distancing" have been perceived and implemented by ethnic minority populations compared to white populations across the North West of England.

3 | METHOD

3.1 | Design

The study used an explanatory sequential mixed methods approach combining a quantitative survey and qualitative semi-structured interviews to undertake an interpretive inquiry of the data.

4 | RECRUITMENT AND QUANTITATIVE DATA COLLECTION PROCESSES

4.1 | Online survey

Participants were recruited between April 27, 2020 and May 15, 2020 using an online survey distributed via social media, and through professional/social networks. Using targeted focussed promotion through social media (such as Facebook), two communities (ethnic minority groups & Lesbian, Gay, Bisexual, Transgender and Queer [LGBTQ] groups) were specifically targeted for over-sampling, so that groups could be compared. Eligibility criteria included being at least

18 years of age. Average completion time was around 25 min. Respondents were asked if they would be interested in taking part in the interview study at the end of the survey.

4.2 | Survey measures

The survey was built using the Qualtrics online platform (www.qualtrics.com). The questions used in this study form part of a larger survey, the details of which are available from the authors on request.

4.2.1 | Background demographics

Participants were asked questions about their gender, sexuality, relationship status, religion, key worker status, medical conditions, and BMI. The latter four were dichotomised into Yes/No variables for the purposes of this study.

4.2.2 | Household circumstances

Participants were asked questions about the number of rooms in their home, household size and type, and number of children.

4.2.3 | Perceptions and responses to government COVID-19 guidelines

Participants were asked a series of questions developed for this study or based on questions from other COVID-19 studies.[33] These included their perceptions of the relevance, ease, and workability for their and other different types of households/families of the government Covid-19 guidance (rated from 1 to 5, lower scores indicating less positive repsonses); their knowledge of Covid-19, confidence in government, and their opinions on whether long-term impacts were considered (rated 0–10); and their experiences of work-related and personal impacts (Yes/No).

4.2.4 | Standardised measures

Alcohol consumption before the restrictions was measured using the AUDIT-C[34] consisting of three items relating primarily to binge drinking. Wellbeing was measured using the Short Warwick Edinburgh Mental Wellbeing Scale,[35] consisting of seven items scored 1–5 with a total possible score of 35, and the ONS single life satisfaction item, "Overall...how satisfied are you with your life nowadays?," scored 0–10.[36] Resilience was measured using the Brief Resilience Scale,[37] consisting of six items scored 1–5 and with a total score in the range of 6–30. All measures have been well validated in the general population and all showed good reliability in the survey sample (Cronbach's α = 0.840, 0.885).

4.3 | Recruitment and sampling

Purposive sampling was used to recruit participants from ethnic minority and white communities in the North West of England. Of those who took part in the survey, 617 out of 1527 (40%) people from white backgrounds indicated that they would be happy to be contacted about taking part in a qualitative interview. At least fifteen interviews were needed per group to enable data saturation.[38] Thirty people from white (*n* = 15) and LGBTQ communities (*n* = 15) were invited to take part in the interview and all (100%) responded to an email from the study team and consented to take part. Fifteen out of 60 (25%) people from ethnic minority communities indicated that they would be happy to be contacted about taking part in a qualitative interview. Six (40%) of these participants responded to an email from the study team and consented to take part. A further 17 potential participants replied to social media postings about the study (via Facebook and Twitter) with 13/17 (76%) participants consenting to take part. In total 30 participants from white communities and 19 from ethnic minority communities were interviewed.

4.4 | Qualitative data collection procedure

The interviews took place remotely between June 15 and August 18, 2020 using online platforms such as Zoom or Microsoft Teams or via telephone and informed consent was taken verbally. Before starting the audio recording, researchers introduced themselves to explain the study and build rapport. The interviews were semi-structured in nature to allow for direction, but also the discussion of unexpected topics. The main purpose was to get opinions on the national COVID-19 restrictions and their impact on participants (e.g., living circumstances; how participants were affected by Covid-19, e.g., in terms of working from home, home schooling, being a frontline worker etc.; the guidance—its clarity, adherence [by the participants and their perceptions of others' adherence]; impact of COVID-19 on everyday routine; and positive and negative changes that have been experienced). Questions included: "Could you tell me about your experience since lockdown began in March 2020?," "How have you found the guidance provided by the government on the TV, in any letters or messages from the government 'stay home, save lives' and 'stay alert-control the virus' about COVID-19 and lockdown?" "Have you followed the guidance for lockdown for example, self-isolation, social distancing?." Interviews were recorded using a digital audio recorder and transcribed verbatim. Three experienced researchers (A. H., R. H., and C. B.) conducted and transcribed the interviews.

5 | DATA ANALYSIS

5.1 | Online survey

Data from the survey was exported from Qualtrics and imported into SPSS version 26.0. The data file was checked for completeness and any export-import errors, before being cleaned (e.g., removing any system variables) and computing scores. Summary measures and standardised scores were calculated for the validated tools. Differences between ethnic minority and white participants were explored descriptively and using bivariate analyses (Chi-squared test for categorical variables and *T*-tests or Mann–Whitney *U* Tests for continuous variables). All tests were 2-tailed with an a priori alpha level of $p < 0.05$, with a post-hoc Bonferroni correction applied.

5.2 | Interview data

Interviews were transcribed verbatim using the Otter.ai online service and then checked for accuracy against the audio recording to aide rigour. Participant confidentiality and anonymity was maintained by assigning each transcript with a unique identifier and each transcript was anonymised. Analyses were undertaken in NVivo 12. Thematic analysis[39] was used as it allows immersion in the interview material and the development of a deeper appreciation of the content. A theoretical deductive approach was employed whereby the sampling and analysis was driven by the research interests and previous research. Themes and codes of interest were determined independently by researchers (A. H., R. H., C. B., L. P., H. T., C. L., and P. S.), using the steps recommended by Braun and Clarke[39]: listening to interview recordings, and reading each transcript several times to establish familiarity with the whole interview, and generating descriptive codes to represent the main themes. Ongoing analysis refined the specifics and formulated the conceptual name of each theme. The final part of the analysis was the selection of the interview extracts, relating the analysis to the research question and literature. The process of refining and validating these independent findings was conducted through a collaborative exercise creating iterative feedback loops between the researchers until consensus was achieved. Analysis was then discussed and reflected upon with all the authors to incorporate multiple perspectives and reach agreement and validation of the themes that derived from and described the data.

6 | RESULTS

6.1 | Survey data

6.1.1 | Participant characteristics

In total 1587 took part in the survey; 60 (4%) were from ethnic minority communities. The characteristics of those taking part in the survey are summarised in Table 1. Overall, the sample when compared to the northwest population, tended to be older, female, and live in Merseyside. People from ethnic minority backgrounds were underrepresented as 8% of the population of the North West of England are from ethnic minority communities.

TABLE 1 Characteristics of the individuals who completed the online survey.

	Ethnic minority populations N = 60	White populations N = 1527	Test statistic + p Value
Age (N = 1549; mean [median] years [sd])	44 (44.5) years [13.79] (N = 58)	51 (53) years [13.78] (N = 1491)	χ^2 = 17.28 <0.001***
Gender			
Male	14 (23%)	475 (31%)	χ^2 = 2.17
Female	46 (77%)	1041 (69%)	0.19
Other (not included in analysis)	0	11	
Relationship status (N = 1574)			
Single, never married	14 (23%)	223 (15%)	χ^2 = 8.55
Single, divorced, or widowed	3 (5%)	194 (13%)	0.047*
In a relationship/married, but living apart	7 (12%)	102 (7%)	
In a relationship/married, and cohabiting	36 (60%)	995 (66%)	
Sexuality (N = 1529)			
Heterosexual	52 (90%)	1286 (87%)	χ^2 = 0.25
LGBQ	6 (10%)	185 (13%)	0.61
Religion (N = 1561)			χ^2 = 7.65
Stated a religion, even if not practising	44 (76%)	866 (58%)	0.006**
Did not state a religion	14 (24%)	637 (42%)	
Key worker status (N = 1578)			χ^2 = 0.01
Was a designated key worker	19 (32%)	473 (31%)	0.93
Was not a designated key worker	41 (68%)	1045 (69%)	
Have medical condition			
Yes	24 (40%)	771 (50%)	χ^2 = 2.54
No	36 (60%)	756 (50%)	0.111
Obese (BMI > 30)			
Yes	13 (22%)	520 (34%)	χ^2 = 3.97
No	47 (78%)	1007 (66%)	0.046*
Alcohol Consumption (AUDIT C; N = 1565)			
Don't drink alcohol/low risk (score <6)	50 (86%)	1052 (70%)	χ^2 = 7.21
Increasing/higher risk (score > 5)	8 (14%)	455 (30%)	0.007**
Life satisfaction (N = 1578)			t = −1.118
Mean, s.d.	6.14 (2.49)	5.77 (2.30)	0.268
Brief resilience scale (N = 1548; α = 0.885)			t = 0.975
Mean, s.d.	2.5 (0.80)	2.58 (0.87)	0.333
SWEMWBS (N = 1,570; α = 0.840)			t = 0.612
Mean, s.d.	22.69 (5.45)	23.13 (4.81)	0.543

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

6.1.2 | Demographics, health, and wellbeing characteristics

Ethnic minority respondents were significantly more likely than white respondents to be younger, state a religion, and be at no or low risk of alcohol consumption, and marginally more likely to be in a relationship and less likely to be obese. There were no differences between groups on gender, sexuality, key worker status, medical conditions, or the measures of wellbeing and resilience.

6.1.3 | Household characteristics

Household and living circumstances are summarised in Table 2. The ethnic minority respondents were more likely than white respondents to live in smaller houses, have larger households, have more children, and be in households spread across more than one residence. This reflects longstanding structural inequalities in housing across the North West that pre-date and exacerbate the impacts of the pandemic.[10,11]

6.1.4 | Government guidance

There were no significant differences between the ethnic minority and white participants in relation to how relevant the government's COVID-19 guidance were, how easy they were to follow and how much they agreed with the guidance being workable for different types of households (Supporting Information: Table A).

There were no differences between groups in relation to their confidence in the government handling of the situation, but = White participants rated their knowledge significantly higher than ethnic minority participants did (Supporting Information: Table B). There were no significant differences between the groups in relation to their opinion on whether enough thought had been given to the long-term impact of the restrictions on physical health; mental health; young people's future prospects; the elderly; people's jobs; people's finances; the economy; our security; politics; health care services, such as the NHS; and on social care services, such as care homes, however for children and young people's education there was an indication ($p = 0.044$, after Bonferroni correction this was non-significant) that ethnic minority participants felt this had not been given enough thought.

6.1.5 | Impacts of COVID-19 and restrictions

There were no significant differences between the ethnic minority and white participants in terms of whether they or their household had experienced a range of negative impacts with relation to employment, living circumstances, access to medication, hospitalisation, or bereavement. However, ethnic minority participants were marginally more likely to report experiencing a major cut in household income, and/or job loss/inability to do paid work.

7 | INTERVIEW DATA

Forty-nine interviews were conducted with 19 ethnic minority respondents and 30 white respondents and Table 3 shows the characteristics of the interviewees. All of the white respondents opted into being interviewed via the survey, however only six of the 19 ethnic minority participants were recruited this way. The additional 13 ethnic minority participants were recruited via paid online advertising or through social networks (68%). The primary themes, subthemes, and illustrative quotes from the qualitative data are summarized in Table 4. To distinguish between respondents, we have labelled quotes from ethnic minority respondents as EMG and those from white respondents as WCG. We have also stated the age range and gender to add more description about the interviewee.

7.1 | Theme 1: Government guidance

7.1.1 | Knowledge and understanding of government guidance

Although the survey data showed that ethnic minority participants had significantly less confidence in their knowledge of Covid-19, the interview data did not support this. Some people who had family working in health-related professions started social distancing and staying at home before the official announcements were made in March 2020 (quotes 1.1 and 1.5). Many participants followed the guidance (quotes 1.3 and 1.4) and some thought that the restrictions started too late in the United Kingdom, especially when the news was highlighting the situation that was developing in countries across Europe (quote 1.2).

7.1.2 | Confusion/frustration over messaging and different interpretation of how people follow the "rules"

Participants reported that the guidance was initially clear, straightforward and easy to follow. However, some became more frustrated and confused as the restrictions were eased (quotes 1.6, 1.7, and 1.10). Participants spoke negatively about other people becoming complacent as the restrictions were eased, for example, not following social distancing rules or wearing face masks (quote 1.8). Some respondents were disappointed that shops were not open and thought that some of the reasons were because people could not follow the basic guidance rules. Others discussed knowing community members who were meeting in large groups or students who were attending illegal raves—all knowing that they could be fined - and did not understand why individuals were taking the situation so casually.

TABLE 2 Living and household circumstances.

	Ethnic minority populations N (%)	White populations N (%)	p
Number of rooms (n = 1578)			
1–3 rooms in home	13 (22%)	174 (11%)	
4 or 5 rooms	22 (37%)	540 (36%)	χ^2 = 9.14
6 or 7 rooms	13 (22%)	556 (37%)	**0.027***
More than 7 rooms in home	12 (20%)	248 (16%)	
Household living circumstances (n = 1583)			
Everybody in same household lives in same home	48 (80%)	1365 (90%)	χ^2 = 5.58
Not everybody in same household lives in same home	12 (20%)	158 (10%)	**0.018***
Household size (adults & children, including respondent, N = 1532)			
1 person	5 (9%)	303 (21%)	
2 people	17 (31%)	615 (42%)	
3 people	11 (20%)	251 (18%)	
4 people	11 (20%)	209 14(%)	χ^2 = 22.21
5 or more people	11 (20%)	89 (6%)	**<0.001**
Number of children/household			χ^2 = 27.23
Zero children in household	25 (44%)	1114 (75%)	**<0.001*****
1 or more children in household	32 (56%)	370 (25%)	
Living with people not from household (n = 1470)	7 (13%)	74 (5%)	χ^2 = 6.26
Lives with one more person who is not part of household	46 (87%)	1343 (95%)	**0.012***
Does not live with one/more person who is not part of household			
Children			
Respondent and partner has one or more child	24 (41%)	356 (24%)	χ^2 = 9.20
Respondent and partner has no children	34 (59%)	1133 (76%)	**0.002*****
Number of children respondent and/or partner have (N = 1547)			
No Children	34 (59%)	1133 (76%)	
1 child	13 (22%)	155 (10%)	
2 children	8 (14%)	154 (10%)	χ^2 = 11.00
3 or more children	3 (5%)	47 (3%)	**0.012**

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

Some respondents spoke about "social conforming" as they seemed to be socially influenced by changes in others' behaviours. As the restriction were eased they seemed less strict or concerned about following the guidance and spoke about mixing with more people within their own homes due to seeing that others were not being as cautious either. Participants spoke about those shielding being forgotten and increasingly isolated when the guidelines were evolving from the government as they still could not be safe outside of their home environment. Differing guidance from professional bodies made it difficult for employers trying to follow the rules and create safe working environments for their employees. Others thought that the Government had not taken ethnic minority communities who were at higher risk into account from the beginning, particularly as they were disproportionately affected by

TABLE 3 Characteristics of the individuals who took part in one-to-one interviews.

Characteristics	Ethnic minority populations N (%)	White populations N (%)
Recruited via		
Survey respondent	6 (32)	30 (100)
Online advertising	13 (68)	0*
Residence		
Merseyside	15 (79)	3 (10)
Cumbria	0 (0)	7 (21)
Cheshire	0 (0)	11 (34)
Greater Manchester	3 (16)	7 (21)
Lancashire	1 (5)	2 (7)
Age		
<30	5 (26)	5 (17)
30–49	13 (69)	12 (40)
>50	1 (5)	13 (43)
Gender		
Male	7 (37)	13 (43)
Female	12 (63)	17 (57)
Health condition		
Physical health condition	4 (21)	12 (40)
Mental health condition	1 (5)	1 (3)
None disclosed	14 (74)	17 (57)
Living circumstances		
Lives alone	3 (16)	11 (37)
Lives with partner/friend	4 (21)	16 (53)
Livers with more than 1 family member	12 (63)	3 (10)

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

COVID-19, for example by providing information and guidance in community languages (quote 1.9).

7.2 | Theme 2: Impacts of restrictions and "social distancing"

7.2.1 | Impacts on keyworkers and their in some cases families

Keyworkers reported the need for them to stay in work and their increased fear of bringing COVID-19 home to their families; resulting in some moving out of their family home to protect household members who were shielding (quote 2.1). Some participants reported a lack of PPE for them to conduct their work safely, particularly early on in the pandemic (quote 2.2). For others COVID-19 and the associated restrictions had a significant negative impact on the work they could do. For example, one participant was no longer able to undertake their work placement in a hospital setting—learning had to be shifted online meaning that the benefits of experiential learning from the placement were lost (quote 2.3). One participant working within an ethnic minority community reported that the impact for work was much greater (in terms of workload) as some colleagues were now shielding or unwell due to COVID-19 and were not able to continue being in work (quote 2.4). Thus, creating worry for future work exhaustion and "burnout." Interview responses reflected the pandemic's significant impact on the way people work and the manner in which services are delivered. For example, the need for social distancing and cleaning of equipment between uses meant that appointments (e.g., hairdressing) needed to be staggered and fewer people could be accommodated in a working day (quote 2.5). PPE needed to be worn and restrictions within the workplace also needed to be implemented to ensure the safety of patients and clients; thus reducing productivity and contributing to negative financial implications for businesses and the NHS.

7.2.2 | Impacts for working life from home or adapting working practices

There was considerable variation in people's experience of working from home. Many enjoyed working from home, having more flexibility, reduced commuting time, the space to enjoy their home or surroundings, more time to take things slowly, and time to be more proactive online and undertake more training opportunities. Some expressed a desire to continue working from home post the restrictions (quote 2.9). For some, being furloughed or unemployed led to innovation and adaptation of current work practices which positively impacted on their employment and employability (quote 2.7). For example, one self-employed woman in the catering industry developed her online presence during the restrictions, which has helped to sustain and future proof her business. However, working from home posed challenges for many. Managers reported the negative outcome on not being able to develop relationships with staff or provide time for staff to offload or socialise within their working day (quote 2.6). Some in self-employment were adversely affected as they were ineligible for the government's support scheme (quote 2.8). The challenges of finding a job were exacerbated during the restrictions and one participant felt that the government needed to do more to encourage employers to offer home-based work opportunities.

7.2.3 | Impacts on parents who were home-schooling

Education featured less in the white population group within both the survey data and interviews; this may be due to ethnic minority

TABLE 4 Themes, Sub-themes and Representative Quotes related to the impacts of COVID-19 on ethnic minority and white community groups.

Theme	Subtheme	Qualitative data
(1) Government guidance	Knowledge and understanding of government guidance	**1.1** "So as a family we had started a couple of weeks beforehand, being careful. And then obviously when the information [guidance] came and intensified the way it did, we were looking out for each other" (30–49, female, EMG)
		1.2 "I think for me, because, in my personal opinion, lockdown [restrictions] came into effect quite late, because other nations they could see what was going on" (<30, female, EMG)
		1.3 "I understood the guidance but felt that messages became less clear." (>50, female, WCG)
		1.4 "As a family we have been following the guidelines, including the neighbours, everyone who I have spoken to in our WhatsApp group, have actually been listening to what they're saying and abiding by the rules." (30–49, female, EMG)
		1.5 "NHS staff often had a better understanding of the severity of the pandemic. They were able to be proactive at home–implementing strategies to keep safe before government restrictions were imposed." (<30, male, WCG)
	Confusion/frustration over messaging and different interpretation of how people follow the 'rules'	**1.6** "It was good until the first guideline, but after the second guidelines came, I think that people just become relaxed. They think that okay, it's all over now." (<30, male, EMG)
		1.7 "We know today what our guidelines are and then because we are getting so many differing guidelines it becomes confusing." (30–49, male, EMG)
		1.8 "I think that because the more you see other people that are doing things you're like, hold on, why am I sitting at home miserable when other people are having barbecues and parties." (30–40, female, WCG)
		1.9 "So from my work point of view, because from the work I do with ethnic minority communities, as an organisation, we found that there was a lack of advice, information and guidance prepared in community languages. So we know that Bangladeshi communities are disproportionately affected by COVID-19. And they were still going about their business as normal, especially for those that didn't have English or have English as a second language or didn't have access to support and advice." (40–50, male, EMG)
		1.10 "I think it's been very contradictory. It's been quite frustrating" (30–40, female, WCG)
(2) Impacts of restrictions and 'social distancing'	Impacts on keyworkers and their in some cases families	**2.1** "My husband decided it wasn't safe for him to stay at home, the same with my daughter, because obviously they're in the frontline, they are medics, so they understood more than me." (30–49, female, EMG)
		2.2 "In the early days of the pandemic there was a lack of preparedness. Employers did not provide employees with sufficient support or PPE, even in the NHS which made participants feel unsafe." (<30, male, WCG)
		2.3 "It's had quite a big impact because two weeks before the start of lockdown I began hospital placement for the first time. So I was having like introductory stuff and then I was going to start on the wards." (<30, male, EMG)
		2.4 "On a day-to-day basis, I've still be going into work. In fact my workload has increased, because we've lost some staff due to, them becoming unwell or because they're self-isolating because of their age, and they've been shielded." (40–50, male, EMG)
		2.5 "That is going to change how many people we can have coming for assessment appointments (hairdressers). Whereas before we could have 14 now you may only have five, because they've got to

TABLE 4 (Continued)

Theme	Subtheme	Qualitative data
		stay there longer while you're, you know, all the equipment gets cleaned up." (50, male, WCG)
	Impacts for working life from home or adapting working practices	2.6 "Working with the team, liaising with the team has been difficult and managing a team has been difficult… those personal relationships you build up when you're in the office job and someone gets in you can have a chat to them or talking about the football, whatever, some of that has been lost." (40–50, female, WCG)
		2.7 "She [mum] does a lot of outdoor events on the weekends, so all of them got cancelled, so she's had to kind of translate her work to online and now she's more on the online side. So kind of her work on the outdoor events has stopped, but it's like strengthened her online presence." (<30, male, EMG)
		2.8 "My husband was self-employed. But now obviously since COVID-19 happened, he is unemployed for the time being… actually we are not eligible for that [government support scheme]. So that's that. We're just on our own." (30–40, female, EMG)
		2.9 "I would definitely like to continue working from home. It's something I like to do." (30–40, male, WCG)
	Impacts on parents who were home-schooling	2.10 "Part of it was that because of lockdown, particularly for people living in smaller homes that might only have a few rooms in their house. They couldn't find the space to have conversations." (40–50, male, EMG)
		2.11 "And then my oldest one, he's quite overwhelmed. You know, and there's a little reading, you know, you can imagine when you're like, assigned reading and trying to understand all by yourself and do the assignments, so to speak, you know, so I think on that part, he find it difficult." (40–50, female, EMG)
		2.12 "I am quite able to home-school him because, you know of my education. So essentially, he finds it helpful for me to sit with him, but it's become too much for me because I have to be able to look after them to do the house chores" (40–50, female, EMG)
		2.13 "I just realised the schools are not teaching the kids enough, but particularly for him is not giving the kind of guidance week to week." (40–50, female, EMG)
		2.14 "Our schools they are really, really lacking. And it need not be the case because teachers are supposed to be still working in a job you know my husband works more than full time. Why are they not responding to the emails or you know, at least make sure the kids are being heard, you know? So I was very, very disappointed on that regard" (40–50, female, EMG)
	Changes in lifestyle and wellbeing	2.15 "So eating more and drinking more you know all of those physical things, been doing more of that. I don't always go out which is, I don't think it's a good thing because I think it just adds to your stress. I mean we're certainly drinking lots more than we would normally." (>50, female, WCG)
		2.16 "Yeah, I think I've been definitely lazy! At the beginning I was okay I was doing a few home workouts a week and now nothing at all. So definitely I want to stop that and I want to get back into an exercise routine. I think I've been eating quite unhealthy as well." (<30, female, WCG)

TABLE 4 (Continued)

Theme	Subtheme	Qualitative data
		2.17 "Yeah my exercise has gone out the window completely in the last month or so I say, I really do need to get active again definitely." (30–40, female, WCG) **2.18** "One thing I noticed the physical health is effect more because I was more active, do more things. But in this period I feel pain in my joints. Then I'm not active, I put on weight because when I eat and stay at one place, there is not much room to go around. There is only one way I can walk around the block. And that's it." (40–50, female, EMG) **2.19** "The mental health as well. And you know, when you are living with someone all day long for 24 h, you need a change." (40–50, female, EMG)

Abbreviations: EMG, ethnic minority group; WCG, white community group.

participants who took part in the study being more likely to having school-aged children but could also be due to cultural differences as some ethnic minority groups are known to place more importance on education.[40] For those participants home-schooling, worries about children's education and the added pressure on them of home-schooling was discussed (quote 2.11). Respondents spoke about having multiple children in the home, where one/two engaged with online schooling but others disengaged. Younger children were reported to be more difficult to home–school than children over the ages of 9 or 10 years. Respondents emphasised the importance of incorporating a daily routine to enable/encourage children to keep up with schoolwork. Some parents felt unsupported by school, particularly with children who were becoming depressed at home and were not engaging with online learning (quotes 2.13 and 2.14).

The survey data revealed that ethnic minority participants were more likely to live in smaller households with a greater number of family members. Some participants alluded to the lack of space within their home and how this affected people receiving remote care. Less space impacted on where children completed their work or parents being able to speak privately about any concerns they had for their children during the restrictions (quote 2.10). Additionally, some parents reported needing to sit with their child throughout the day to ensure they completed their schoolwork – as to them this was a priority - which then impacted on them completing their chores or focusing on their own, paid, work (quote 2.12).

7.2.4 | Changes in lifestyle and wellbeing

Participants reported varied impacts of the restrictions on their physical and mental wellbeing (quotes 2.19 and 2.20). Negative experiences included loneliness, not being able to care for or support loved ones, relationship difficulties, missing grandchildren and feeling anxiety when going out and being around people who are not wearing facemasks indoors. One participant raised concern that domestic abuse was increasing, particularly within Pakistani communities. In terms of health behaviours, most participants spoke about wanting use this opportunity at home to eat more healthily and exercise more often. However, some started with a healthy attitude while others spoke about eating and drinking alcohol more (quotes 2.16-2.19). Participants discussed being less active due to the change in lifestyle and how this negatively impacted their physical health due to sitting more and not having the environment to exercise (e.g. needing better weather for walks). The survey data identified that risky drinking was significantly less common amongst ethnic minority participants. The interview data complemented this finding; increased alcohol consumption was discussed more often by white participants (quote 2.17).

8 | DISCUSSION

8.1 | Summary of main findings

This study explored how the government guidance and social distancing rules impacted on the lives of people living across North West of England. Ethnic minority survey participants were significantly more likely than white participants to be younger, in a relationship, state a religion, live in smaller houses, in larger (multi-generational) households, have more children, and were less likely to be high-risk drinkers or obese. Ethnic minority respondents were significantly less confident in their knowledge of COVID-19, and were marginally more concerned about the long-term impact the restrictions would have on children's education and more likely to have experienced job loss/inability to work and/or a major cut in household income since Covid-19 restrictions began. There were no differences between groups in perceptions of the guidance, other nonfinancial impacts, or the measures of wellbeing and resilience. The qualitative interviews enabled the collection of more in-depth insights, producing narratives of individuals' experiences highlighting

some nuances due to cultural background. Participants from both groups relayed common elements in their understanding of the guidance, such as the clarity or confusion of government messaging. However, important differences were noted between the groups with ethnic minority participants discussing loss of jobs, financial difficulties, multigenerational households and having school aged children at home during the restrictions more often than white participants.

The survey showed that, while white participants rated their knowledge of Covid-19 higher than ethnic minority participants did, there were no group differences in perceptions of the relevance, ease, and workability of government guidance, or in confidence in the government's response. Within interviews both groups discussed how the guidance was clearer in the beginning of the restrictions, but became more confusing and frustrating as the restrictions were eased. Some people across both groups reported finding the restrictions very difficult for various reasons including home-schooling, loss of jobs, and loneliness. There was, however, variation in people's experience of working during the restrictions. Keyworkers reported the need for them to stay in work and their increased fear of bringing COVID-19 home to their families, resulting in some moving out during the pandemic and impacting family dynamics. Self-employed people found themselves out of work, some for the first time ever, and could not claim the government benefits or be furloughed. Others appreciated having more free time to relax, enjoy hobbies, exercise, cook or spend time with family. Education was more of a worry for ethnic minority participants who reported prioritising their children's education and home-schooling routine throughout the restrictions, and were more likely to feel the long-term impact on education had not been thought through. Previous studies have reported some ethnic minority groups placing high value on education, particularly high educational aspiration being trans-mitted by parents for Chinese and Indian populations.[40] In keeping with previous research,[41,42] most participants reported being less healthy during the restrictions in terms of diet and exercise; with white participants reporting significant increases in risky drinking. However, interview data highlighted that most participants from both groups reported positive intentions or changed behaviours, particu-larly with regard to diet, to improve these unhealthy habits.

8.2 | Comparison to previous literature

This study highlights the significant difficulties some people experienced in understanding the government guidance and infor-mation on COVID-19 and prevention strategies, particularly as they evolved over time. Previous research has highlighted an increasing lack of trust and clarity around government communication regarding COVID-19.[33,43] Contradictory to previous research (House of Commons 2020[9]), this study did not report participants having problems understanding the guidance because English is not their first language. However, this study may not have found these differences because of the participant sampling and the study

information all being shared in the English language only. However, this study did emphasise the additional needs of ethnic minority communities (e.g. Bangladeshi community) who are often reliant on their local networks to understand information. Due to the restrictions and social distancing measures, community networks across both groups have been affected, particularly through the closure of local religious buildings or community centres and hubs, meaning that people have not been able to access the support of their community networks in the usual way. Similar findings have been reported,[31] however, more research is needed to understand the impact on different ethnic minority groups.

Similar to previous studies, ethnic minority participants were more likely to live in densely-populated urban areas[9,44,45] and live in smaller houses with larger families. This impacted space for work, education, isolation and privacy. There does not seem to be any clear guidance from the Government on how to overcome the practical challenges of living in overcrowded, and in some cases multi-generational, accommodation. Poor housing conditions have adverse impacts on health; and living in poor quality housing is an aggravating factor in experiencing COVID-19[10,46] The findings from this study suggests that pre-existing housing inequalities may have exacerbated the impact of coronavirus on ethnic minority people, particularly those living in overcrowded conditions.

Ethnic minority participants were more likely to report having experienced job loss and/or reduced household income. This pandemic crisis is expected to widen the existing economic inequalities, particularly those in precarious types of employment, or in a vulnerable position.[9,47] Further research is needed to understand the disproportionate impact of coronavirus on ethnic minority people to examine the extent of the impact on household income. There is a need to explore whether pre-existing inequalities, specifically regarding health, housing, and employment, has exacer-bated the impacts of the pandemic for ethnic minority communities.

The impact of the Covid-19 pandemic on mental health and wellbeing in the United Kingdom population in general has been well documented.[48] However, this study echoes large-scale longitudinal data on the UK population in finding no differences in wellbeing between ethnic minority and white participants.[49]

8.3 | Strengths and limitations

This study has a number of strengths. First, to our knowledge this is the first study in the North−West of England to compare the impact of government guidance and social distancing for ethnic minority and white communities. Previous studies have focussed on epidemiolo-gical investigations, health care workers experiences or ethnic minority populations individually.[19,23,31] Secondly, it adds valuable insights from both ethnic minority and white communities them-selves, enabling researchers to reflect the diversity as well as commonalities of the communities they are studying, and to ensure that participants are meaningfully involved in the research. Thirdly, we included a large sample of survey respondents ($n = 1587$) and

although the number of participants from ethnic minority populations was low ($n = 60$; 4%) we managed to over-recruit ethnic minority individuals within the in-depth interview component of the study. The use of mixed methods provides an important contribution to the study of ethnic minority people's experiences, as this approach allowed us to gain important insights that cannot be inferred from quantitative or qualitative data alone. The two types of data were combined in an explanatory sequential design, thus bringing together two types of information providing greater understanding and insight into this research topic that may not have been obtained analysing and evaluating data separately. To increase recruitment from ethnic minority communities we used and established and trustworthy researcher-community relationship.[50] Having an "insider"[50] from ethnic minority communities within the research team helped with the over recruitment for the qualitative study which used a more targeted approach with known ethnic minority representatives who are actively engaged in research and disseminating study participation within their perspective communities.

However, some limitations remain. Although there are clear differences between the two population groups, we cannot rule out the possibility that different trends in unobserved confounding factors between the two groups may have influenced the results; such as local social deprivation indices based on precise geographical location. Whilst the survey collected data from a wide geographical area including both relatively disadvantaged and advantaged areas, thereby increasing its representativeness, the survey was sent out in English, which may have provided a barrier for those who do not have English as their first language; and using social media platforms that participants may not have been able to access. There was oversampling of women (68%) and people from Merseyside (37%); thus the data is not representative of the population of the northwest as a whole and caution is needed when interpreting the data. The focus on the North West of England limits the generalisability of the study findings to other regions and populations. However, the focus is justified given the region's high rate of infections (PHE, 2021), and the endemic structural inequalities in housing and employment that underpin health inequalities in the region.[11]

Additionally, we acknowledge that ethnic minority is a broad blanket term that is used to refer to most people who are not "White" and recognise that there are vast differences and inequalities between ethnic minority groups labelled with this term. For example, inequalities between ethnic minority groups can be seen in household income: after housing costs, the average household income among Indian households, the wealthiest ethnic minority group, is 46% higher than that of Bangladeshi households, the poorest ethnic minority group.[51] So, while we refer to ethnic minority throughout the paper, largely due to limited numbers of participants in the different ethnic minority groups, we could not compare between them, thus these within-group inequalities must be considered.

Finally, the difference in findings between the online survey and the real-time interviews could have been down to the experimenter demand effect[52] as there may be shading of the truth in response to the questions about whether the government guidance has been reasonable or the extent to which restrictions have impacted them personally, due to fear of being judged by the surveyor or interviewer as having thought or done the wrong thing.

8.4 | Future implications

More quantitative research is needed with larger sample sizes from ethnic minority communities to understand more about the short- and long-term effects of the pandemic and its associated restrictions on different ethnic population groups. This study highlights links between health and social status,[10] thus improvements in tackling the social determinants of health could help reduce health inequalities and improve health outcomes for ethnic minority populations in future public health crises. Future policy should consider the economic impacts for ethnic minority workers, especially for those who work in specific sectors affected more by the pandemic (entertainment industry, non-essential retail, hospitality, travel) and those affected in terms of peoples' safety (health care, essential retail, and public transport). The qualitative findings indicate greater loss of major household income for ethnic minority people due to the industry they worked in and because they were more likely to live in multi-generational households with caring responsibilities for more children and/or older generations. Therefore, more work on understanding the experience of a loss of income for ethnic minority individuals is warranted. High prevalence of unemployment amongst ethnic minority communities has been linked to poorer education levels associated with historic structural biases and systemic inequality.[2,10] The Equality and Human Rights Commission's inquiry[53] into the experiences and treatment of ethnic minority workers in lower paid roles in the health and social care sector could provide more information on the relationship between coronavirus, occupation and inequality. Additionally, our survey results highlighted an issue that significantly affected the ethnic minority respondents, living in overcrowded homes. More thought is needed for those living in overcrowded housing regarding how to overcome the practical challenges of social distancing and infection control when living in overcrowded, and in some cases multigenerational, accommodation. More practical and meaningful guidance is needed for these communities.

9 | CONCLUSIONS

Ethnic minority and white populations were affected differently by the impact of social distancing and Government guidance. Further research is needed on the long-term economic, social, and health impacts of COVID-19 on ethnic minority communities. If policy responses to COVID-19 are to benefit ethnic minority communities as much as others, there is a real need for future studies to consider fundamental, societal issues—such as the role of housing and economic disadvantage—in how they theorise and measure the impact of COVID-19 on ethnic minority communities.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

The authors confirm that the data supporting the findings of this study are available within the article [and/or] its Supporting Information Materials. Data can be requested from the authors with the permission of Liverpool John Moores University Phoenix Team. All authors have read and approved the final version of the manuscript. P. S. and V. H. had full access to all of the data in this study and takes complete responsibility for the integrity of the data and the accuracy of the data analysis.

ETHICS STATEMENT

Ethical approval was obtained from Liverpool John Moores University ethics committee [20/NSP/017 and 20/PHI/014]. All participants were informed about the study before proceeding with the online survey or via an invitation email that provided details of the interview study, a participant information sheet (PIS) and a consent form. All participants provided informed consent via an online tick box preceding the survey or verbally before interviews. The study was conducted in English.

THE PHOENIX TEAM

The Phoenix team also included Prof Harry Sumnall, Dr Gordon Hay, Prof Zara Quigg, Dr Ivan Gee & Mr Mark Whitfield.

TRANSPARENCY STATEMENT

The lead author Pooja Saini affirms that this manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned (and, if relevant, registered) have been explained.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.