The COVID-19 Stress and Health Study
Spotlight on Ethnicity
(17.08.20)

[Kavita Vedhara, Kieran Ayling, Ru Jia, Trudie Chalder, Carol Coupland]

Report Produced to Coincide with Public Health England (PHE) National Mental Health, Dementia & Neurology Intelligence Network Spotlight on ethnicity
Ethnic differences in the mental health challenges experienced during the COVID-19 pandemic

The first stage of the COVID-19 stress and health study revealed that in the earliest stages of the pandemic in the UK (April 2020), although there were very few differences in the emotional impact on respondents who are white British compared with those from Black and Ethnic Minority (BAME) backgrounds, BAME respondents did report greater levels of stress (https://www.medrxiv.org/content/10.1101/2020.05.14.20102012v1).

We conducted some additional analyses on the survey responses from April 2020 to better understand the differences in stress experienced between BAME and non-BAME participants. We focussed on the psychological and social measures which we found to be related to mental health in all participants at wave 1. This included: perceived loneliness, positive mood, worry about COVID-19 and perceived risk of COVID-19 infection.

We analysed responses from 296 BAME respondents and 2,796 non-BAME respondents. We first compared BAME and non-BAME respondents on how lonely they felt, how much positive mood they were experiencing, how worried they were about getting COVID-19 and their perceived risk of acquiring the infection. BAME respondents believed that they were at similar risk of COVID-19 compared with non-BAME respondents. However, they felt more lonely, experienced less positive mood and worried more about contracting COVID-19. These differences are shown in figures 1-4.

We next asked whether these differences between BAME and non-BAME respondents still existed after taking into consideration how old people were, their gender and the experience of either positive or negative life events since the start of the pandemic, focussing on events related to finances/employment, health and relationships in particular.

Our results showed that once we took into account the differences in age, gender and positive and negative life events between BAME and non-BAME respondents, the two groups no longer differed in their levels of positive mood but BAME participants still had greater levels of loneliness and worry about contracting COVID-19. BAME participants were more likely to be male, younger and reported more negative life events and it may be that these factors were responsible for them experiencing less positive mood. In contrast, we found that these differences in age, gender and life events did not explain the greater loneliness and worry experienced by BAME respondents.

In summary, BAME respondents reported feeling more stressed than non-BAME respondents during the early stages of the COVID-19 pandemic, after accounting for their age, gender, whether they were living alone, and whether they were key workers. This was associated with BAME participants feeling more lonely and being more worried about COVID-19, but not believing they were at greater risk of the disease.

As these results come from a cross-sectional study we are only describing associations, and not suggesting greater worry and loneliness caused greater stress (or vice versa). Long-term follow-ups of this cohort will help us look at cause and effect. Further research is needed to understand (i) whether these feelings of greater stress persist later in the pandemic; (ii)
what aspects of the pandemic are resulting in greater loneliness and greater worry about the disease in BAME respondents and (iii) what sorts of interventions are needed to help manage and reduce stress, worry and loneliness in BAME respondents.

**Figure 1 Illustration of how positive mood scores differed between BAME and non-BAME respondents**

*Violin plot showing the distributions of positive mood total scores among BAME and non-BAME respondents: the white dot in the centre of each plot represents the median of positive mood total score. The think black bar in the centre of each plot represents the interquartile range of positive mood total score. The thin blue line in each plot represents the rest of the distribution excluding outliers. The kernel density estimation of each plot shows the distribution shape of the data, with wider sections representing a higher probability that respondents will take on the given value and skinnier sections representing a lower probability.

**Figure 2 Illustration of how perceived risk scores differed between BAME and non-BAME respondents**
Figure 3 Illustration of how perceived loneliness differed between BAME and non-BAME respondents

Violin plot showing the distributions of measure of loneliness among BAME and non-BAME respondents: the white dot in the centre of each plot represents the median. The think black bar in the centre of each plot represents the interquartile range. The thin blue line in each plot represents the rest of the distribution excluding outliers. The kernel density estimation of each plot shows the distribution shape of the data, with wider sections representing a higher probability that respondents will take on the given value and skinnier sections representing a lower probability.
Figure 4 Illustration of how worry about COVID-19 scores differed between BAME and non-BAME respondents