# Mental health and wellbeing during the COVID-19 pandemic: The affective, behavioural and cognitive responses across the Scottish population

Julie Cameron<sup>a</sup>; Talulah Hall<sup>b</sup>; Kate Hughes<sup>a</sup>; Lee Knifton<sup>a,c</sup>; Otto Lenhart<sup>c</sup>; Robyn Millar<sup>a,c</sup>; Alec Morton<sup>c</sup>; Ioanna Nixon<sup>d</sup>; Neil Quinn<sup>a</sup>; Susan Solomon<sup>a</sup>; Dwight Tse

a – Mental Health Foundation; b – University of Edinburgh; c – University of Strathclyde; d – Beatson West of Scotland Cancer Centre

# Acknowledgements

This research was funded by the NHS Scotland Chief Scientist Office.

#### Abstract

The purpose of the research is to investigate how the COVID-19 pandemic impacts the mental health and wellbeing of the Scottish population. The aim is to understand the psychological impact of the pandemic on different demographic groups (gender, age, and employment status). The research also focuses on people who may be more vulnerable to the pandemic in multiple ways, namely those with long-term physical and mental health conditions and single-parent families.

# **Key Findings**

The pandemic impacted people in Scotland differently, such that a variety of affective (negative affect), cognitive (worries/concerns), and behavioural (coping strategies) responses were observed among the Scotlish population during the pandemic.

Negative psychological impacts were evident in several demographic groups, such as women, younger adults, unemployed individuals, and people with pre-existing physical and mental health conditions.

Some groups demonstrated extraordinary resilience, such as older adults and retirees. They were on average less affected by negative emotional states, had fewer worries and concerns during the pandemic, and were able to use healthier and more adaptive coping strategies.

Coping strategies against pandemic-related stress ranged from the adaptive options, such as maintenance of a healthy lifestyle, to maladaptive ones, such as overeating though taking a walk outside was the most popular adaptive strategy and was performed by all demographic groups.

# Study Methodology

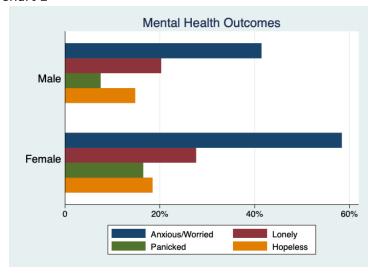
The research findings are based on the data from a large-scale, multi-wave, online survey study 'Coronavirus: Mental Health in the Pandemic' undertaken by the Mental Health Foundation. Survey responses were collected by YouGov, an online social market research firm, from a national sample of around 2,000 Scottish residents living in both rural and urban areas and with different health conditions. In addition to the survey, we also conducted 30 interviews via Zoom or by phone.<sup>1</sup>

#### **Results**

## What did we feel?

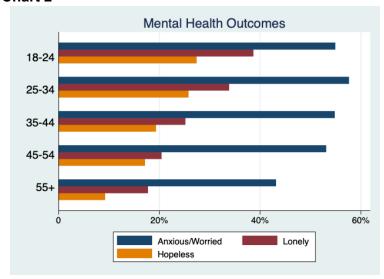
Any pandemic induces psychological stress when people perceive the situation to threaten their wellbeing, and they do not have sufficient resources to cope with it (Lazarus & Folkman, 1984). As such, they may experience negative affective states under stressful situations. In the survey, we asked respondents whether they had experienced these negative states, namely anxiety/worry, loneliness, panic, and hopelessness over in the previous two weeks. Overall, over half of the sample reported feeling anxious and worried, while the prevalence of feeling lonely, panicked, and hopeless was roughly 20%.

Chart 1



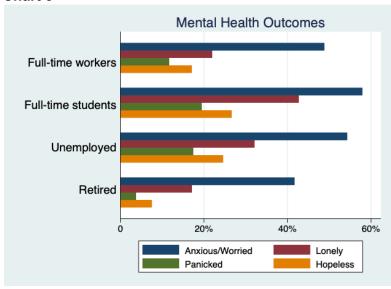
Overall, female respondents appeared to have stronger negative affective responses than males. Specifically, while close to 60% of female respondents experienced anxiety and worry, only slightly over 40% of male respondents experienced such responses.

<sup>&</sup>lt;sup>1</sup> The final sample consists of around 950 male and 1,110 female respondents for each survey wave. Among them, 140 participants were aged 18–24, 285 aged 25–34, 340 aged 35–44, 345 aged 45–54, and 900 aged 55 or over. For employment status, 730 were full-time workers, 90 full-time students, 120 unemployed, and 560 retired.

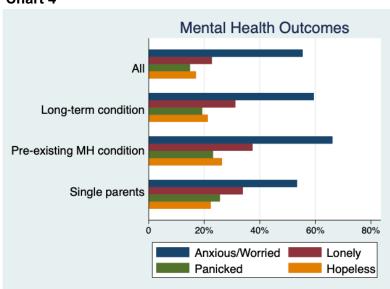


The paradox of aging describes the phenomenon that older (vs. younger) adults tend to experience more positive and less negative emotions despite the commonly assumed functional decline across multiple domains. During the pandemic, we observed that older adults appeared to regulate their emotions better, such that fewer of them experienced these negative affective states compared to their younger counterparts. For example, we find that both loneliness (38%) and hopelessness (27%)are most prevalent among 18-24-year olds and that it decreases continuously with age.

Chart 3



It was observed that a smaller proportion of retirees (mostly older adults) reported fewer negative affective states than people of other employment statuses. Over 40% of full-time students suffered from loneliness during the pandemic. This group also had the highest prevalence of experiencing other negative affective states.

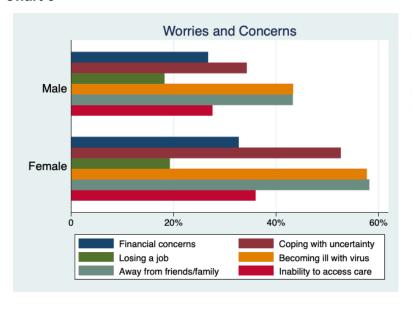


People suffering from long-term mental health and physical conditions were more likely to experience negative affective states than single parents or the population as a whole. However, the differences between these groups are less pronounced than by employment status or age.

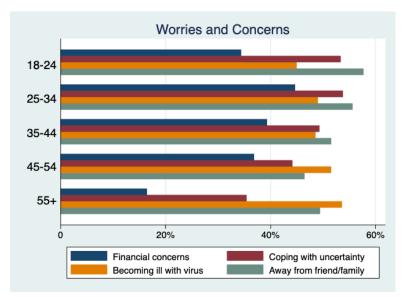
## What did we think?

The pandemic posed not only health-related threats associated with a deadly viral infection, but it also elicited various worries and concerns across multiple domains. Respondents reported whether they had the following worries and concerns during the pandemic: financial concerns, coping with uncertainty, losing their job, becoming ill with the virus, having to stay away from family and friends, and an inability to access care. Overall, the top three worries were becoming ill with the virus, having to be apart from friends/family, and coping with uncertainty. More than half of the respondents had worried about these issues.

## Chart 5

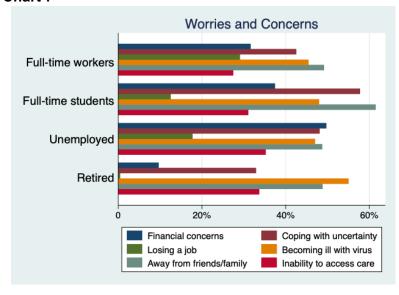


Overall, more female respondents than their male counterparts expressed concerns and worries. For both genders, becoming ill with the virus and staying away from friends/family were the most endorsed items among the six worries.

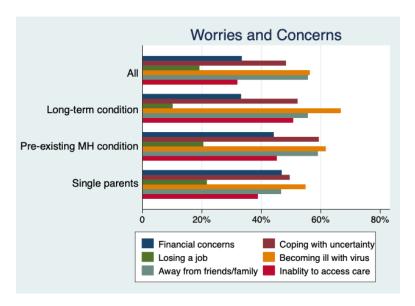


Fewer older adults aged 55 or older expressed having financial concerns or difficulties in coping with uncertainty than did their younger counterparts. However, the older the respondents were, the more they were concerned about becoming ill with the virus.

#### Chart 7



Similarly, retirees expressed the least concerns regarding their financial situation and the worry of losing their jobs. Compared to full-time workers, more unemployed individuals expressed financial concerns, while full-time workers worried more about losing their job. Furthermore, more than half of full-time students expressed the view that having to staying apart from friends/family and coping with uncertainty were their two major sources of worry.

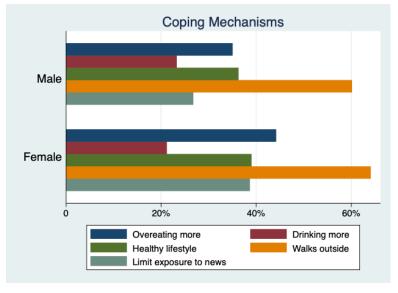


Unsurprisingly, people who suffered from long-term physical health conditions were the group which expressed the most concern of becoming ill with the virus, while significantly more single parents and people with pre-existing mental health conditions who most worried about financial concerns.

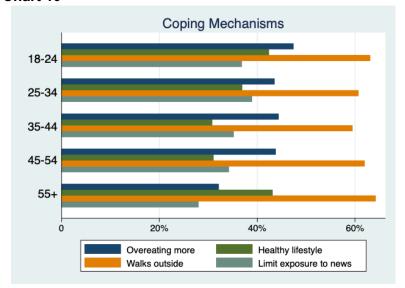
## What did we do?

People under stress utilise different coping strategies to maintain their mental health and wellbeing. Some of these strategies are adaptive, meaning that they are healthy and protective of wellbeing, while others can have negative impact on personal health and wellbeing. Respondents reported whether they had used any of the following coping strategies during the pandemic, namely walking outside, maintaining a healthy lifestyle, limiting exposure to news, overeating, and consuming more alcohol. Overall, three-fifths of the sample reported that they had taken more outside exercise as a coping strategy. Interestingly, around 40% of all respondents reported that they were overeating, while those who stated that were maintaining a healthy lifestyle was also around 40%.

### Chart 9

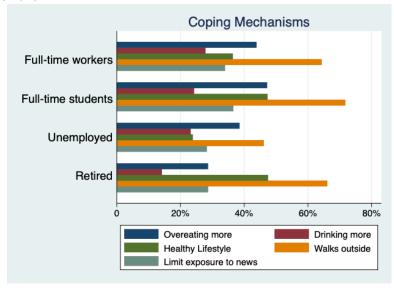


Both male and female respondents took walks outside during the pandemic as a coping strategy. However, a significantly larger proportion of female respondents reported overeating and limiting news exposure than did their male counterparts.

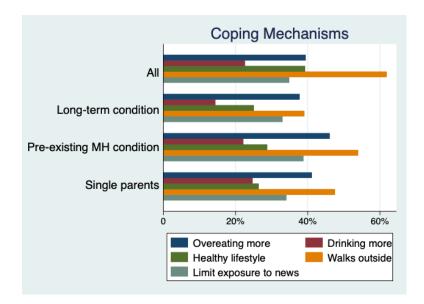


Taking a walk outside was the most endorsed coping strategy for all age groups. However, for those aged below 55 the next most reported coping staregy was to overeat while for those over 55 it was to maintain a healthy lifestyle.

## Chart 11



For all employment status groups except the retired, overeating was the second-most adopted coping mechanism after aking a walk outside. Interestingly, however, unemployed individuals appeared to utilize fewer coping strategies overall compared to all other employment status groups.



People who suffer from long-term physical health conditions were the least likely to walk outside compared to other groups, while people with pre-existing mental health conditions were more likely than other groups to overeat.

### **Discussion and Conclusion**

The Scotland's population has deployed various affective, behavioural, and cognitive approaches to respond to the challenges of the COVID-19 pandemic and the associated public health measures, such as nationwide lockdown and social distancing measures. It is important for policy makers to recognise the widespread anxiety and worry across society, especially issues such as infection concerns and social isolation from friends and family. Not all coping behaviours are healthy and protective to people's long-term wellbeing. It is, therefore, for policy makers to recognise the paramount importance of encouraging people to engage in positive adaptive options and provide an environment and atmosphere to help facilitate such activities.

Our findings provide several lessons for policy makers. The research shows that young adults have experienced particularly high levels of mental distress during the pandemic. While many young people mention that not being able to see friends and family affects their mental being, we also find that that many of them struggle with dealing with uncertainty and are worried about their financial situation. Some of the behavioural changes that we observe, such as overeating and drinking more alcohol, have been shown to have long-term effects on both well-being and human capital accumulation. Thus, we believe that public policy should focus on assisting young adults via, for example, financial support plus a greater focus on raising the minimum wage, training, and access to employment opportunities.

Our analysis shows that over one-third of Scotland's population have experienced concerns about their access to health care during the pandemic, with those concerns being significantly higher for vulnerable groups (e.g. those with pre-existing physical or mental health issues). Changes to public policy that improve access to (mental) health care services during difficult times should be

prioritised by policymakers. Our findings suggest that such measures could reduce the levels of stress among the population.

The research finds that the availability to access green spaces and ability to go for walks outside has helped many individuals cope with the stress during the pandemic; indeed it the most commonly used coping mechanism across gender, all age and employment status groups. Given that this option might not exist equally for everyone, for example due to unsafe neighbourhoods or limited access to local green space, there is an urgency for urban planners and local authorities to create inclusive and welcoming local environments to enable citizens to access these stress-relieving activities.

Overall, public policy should take into greater account the impact of the pandemic on policies related to vulnerable groups (e.g. those with pre-existing conditions, single parents, unemployed, youth). Also, while the clear main goal should be to the efficient reduction of the spread of the coronavirus, it is vital that access to physical and mental health care services is provided. With nearly two-thirds of the population being anxious and worried, this might imply that there is a need for more trained staff that can provide such support for individuals who may seek help.

Corresponding Author: Otto Lenhart - otto.lenhart@strath.ac.uk