# Coronavirus – psychological perspectives

The novel coronavirus SARS-CoV-2, first identified in China late in December, has now infected people in more than 60 countries worldwide. At the time of writing the number of confirmed cases of covid-19, the disease caused by the virus, approached 90,000, with deaths surpassing 3000.

We hoped to find out what psychology could uncover about the virus and how human thought and behaviour might affect its course. *Our journalist Ella Rhodes uncovered some of these psychological perspectives.*

## Quarantine and isolation

In late January the city where the outbreak began, Wuhan in the Hubei province, saw restrictions placed on travel and mass gatherings for its population of more than 11 million. This was followed by full or partial lock-downs being implemented in a number of other cities in the province.

At the end of February, psychologist Dr Samantha Brooks (King's College London) led a 'rapid review' in *The Lancet* exploring the psychological impact of quarantine. While quarantine and isolation may be conflated in some news reports, quarantine is used for currently healthy people to assess whether they develop a disease, while isolation is used for ill people to limit the spread of a disease. In the studies reviewed, quarantine was found to cause a number of negative psychological effects including symptoms of post-traumatic stress, anger and confusion. Additional stressors during and after

quarantine included stigma, loss of finances, boredom and a lack of supplies and information. The authors suggest strategies to counter this, and point out the importance of considering the impact on the healthcare workers who will often find themselves in quarantine during an epidemic of this nature. 'Being separated from a team they are used to working in close contact with might add to feelings of isolation for health-care workers who are quarantined... During infectious disease outbreaks, organisational support has been found to be protective of mental health for health-care staff in general and managers should take steps to ensure their staff members are supportive of their colleagues who are quarantined.'

## Preventing the spread

UCL health psychologist Professor Susan Michie, who works on the Scientific Pandemic Influenza Group on Behavioural Science to support the Cabinet Office Briefing Room, recently argued in a British Medical Journal blog that human behaviour should be at the heart of the public health response as it will determine the speed of spread and mortality rate of the virus. She pointed to the importance of providing the public with 'actionable information for self-protection and clear guidance for treatment seeking'. 'There is a science behind how to make information "actionable". The first step is to identify precisely what behaviours are involved – who needs to do what, when, where. The second is to ensure that people

have the capability, opportunity, and motivation, to enact the desired behaviours; if any one of these are missing, the behaviour will not occur.'

Michie outlined 13 behaviours taken from a review of WHO, CDC and PHE advice, including hand-washing, surface hygiene, respiratory behaviours such as coughing or sneezing into a crooked elbow, self-isolation and social distancing. 'Each of these behaviours require sub-behaviours that may differ according to situation. Each behaviour involves different challenges in terms of the motivation, capability and opportunity needed to enact them.'

While there is so much we are yet to discover about covid-19, Michie outlined some of the priorities for behavioural science research during the outbreak. These included uncovering the current levels of knowledge, anxiety and trust towards public health measures, and managing and mitigating covid-19-related absenteeism and presenteeism in schools and the workplace.

## Risk communication

Professor of Behavioural Science and Security Brooke Rogers OBE (King's College London) is a social psychologist whose research explores risk communication, perceptions of, and responses to risk and threat. She pointed out that the UK government has had pandemic diseases on their radar for many years. The UK National Risk Register has identified pandemic influenza as having the potential to have the most severe impact, and a high likelihood of occurring in the next five years. The Civil Contingencies Act 2004 places duties on a range of organisations to establish and test plans for preparing for pandemic response.

In spite of this forward planning, Rogers told us that pandemic response is a significant challenge that can only be successful if government, science, industry, and communities work together. She said she had been impressed with the evidence-based, transparent approach to communicating with the public in the UK and explained what changes in approach we might see in the coming months. 'At the moment we're in the containment phase and the decision to stay in this phase is influenced and informed by a scientific evidence base. If this situation starts evolving, which there's a high chance that it will, then they would have to consider implementing other interventions. All interventions must stand up to scientific scrutiny and be considered alongside a constantly evolving context.'

Rogers pointed out that potential interventions are already being shared by Chief Medical Officer Professor Chris Whitty, who has been suggesting that certain measures may need to be taken to slow the spread of the virus such as closing schools or cancelling large gatherings. 'Effective response will involve combination of interventions and a combination of changes of behaviour... If you're giving advice you need to let people know why you're giving that advice, give information on why that advice is relevant or effective and give them forward vision of what is likely to happen and what the response process

is going to entail. At the moment, I think they've got the balance pretty much right because they're saying "these are some of the things that we're considering" but they're not making decisions without the evidence to support it.'

There is an important balance to maintain in this type of event between communicating in a way that makes the risk relevant and meaningful to the public in a way that enables people to prepare, or communicating in a manner that makes people feel anxious or frightened. Rogers said that in the past, there been a widespread presumption that the public was prone to panic in the face of disasters, but behavioural science and psychology had shown this is not always the case. 'Yes, panic can happen, but we're much more likely to see prosocial behaviours across multiple types of disasters and extreme events. However, response organisations must recognise that public response can be impacted by the type of information that's available, the perception of the risk, and the levels of trust invested in each organisation.

Professor Rogers also noted that psychologists have demonstrated that under-response can be as problematic as over-response. 'We saw that with the 2009 swine flu pandemic – this had the potential to be a major, major issue but the public really didn't see it as something they needed to pay attention to or do a lot about.' Dr James Rubin (King's College London) has researched the swine flu pandemic and found the uptake of simple changes in behaviour such as increased hand-washing or avoiding crowds and public transport was very low.

Rogers argued that a step-change was needed. 'If people aren't willing to follow the guidance that is there to decrease the risk for them, they need to realise that messages such as "catch it, bin it, kill it", or messages about good hand hygiene are also about keeping the wider community safe. Catching your coughs and sneezes and washing your hands properly are actions that decrease the chances of other people being exposed to this as well, especially more vulnerable groups.'

Writing for our website, social psychologists Stephen Reicher and John Drury picked up on this theme, arguing that 'if we frame things individually – look after yourself! – we run into difficulties when it comes to getting people to behave in ways that are inconvenient to themselves but benefit others (self quarantining, for instance).' They advise: 'Instead of personalising the issue we need to collectivise it. The key issue is not so much "will I survive" as "how do we get through it". The emphasis must lie on how we can act to ensure that the most vulnerable amongst us are protected and losses to the community are minimised – after all, from a collective perspective, a loss to one is a loss to all.'

## Conspiracy theories and vaccine hesitancy

Times of crisis, threat and uncertainty have a tendency to lead to a proliferation of mis-and dis-information, and this has been evident from the beginning of the coronavirus outbreak. Writing for *The Conversation* Dr Daniel Jolley (Northumbria University) and Pia Lamberty (Johannes Gutenberg University of Mainz), who have researched medical-related conspiracy theories, argued such



*Professor of Behavioural Science and Security Brooke Rogers OBE*

theories could present as much danger to societies as the virus itself.

They pointed out that those people who believe conspiracy theories have less trust in groups they view as powerful. People who believe medical conspiracy theories are less likely to have vaccinations and use antibiotics, and are more likely to say they would trust medical advice from non-professionals including family and friends. 'In light of these results', Jolley and Lambertey write, 'people who endorse conspiracy theories about the coronavirus may be less likely to follow health advice like frequent hand-cleaning with alcohol-based hand rub or soap, or self-isolating after visiting at-risk areas. Instead, these people may be more likely to have negative attitudes towards prevention behaviour or use dangerous alternatives as treatments. This would increase the likelihood of the virus spreading and put more people in danger.'

Jolley and Lamberty also pointed out some of the effects of medical conspiracy theories on certain groups in society – during the Black Death, for example, Jewish people were said to be responsible for the outbreak leading to massacres and violent attacks against them. 'The outbreak of the coronavirus has led to a worldwide increase in racist attacks targeted towards people perceived as East Asian.'

They wrote that governments should work to prevent misinformation and conspiracy theories from having a large impact and suggested some potential ways to halt their spread. 'Research shows that campaigns promoting counterarguments to medical conspiracy theories are likely to have some success in rectifying conspiracy beliefs. Games such as Bad News, in which people can take the role of a fake news producer, have been shown to improve people's ability to spot and resist misinformation.'

While a vaccination for the new coronavirus may not be available until mid-2021, according to the BBC, experts are already considering what the impact of the anti-vaccination movement may be. In an interview with *The Guardian*'s Laura Spinney former chair of the Global Health Council Professor Jonathan Quick (Duke University) said vaccine hesitancy had a tendency to diminish in situations where many people were dying, but added: 'Once an outbreak is over, however, levels of vaccine uptake may depend on how fresh that outbreak is in people's minds – even though the risk of another one is real. I've written about a hypothetical situation in which a new and dangerous pathogen emerges, a vaccine is developed, and you still get a pandemic, because large numbers of millennials refuse the vaccine. In the US, 20% of millennials believe that vaccines cause autism. The problem is bad information. As my students often remind me, news tends to be behind paywalls, while fake news is free.'

We have collected some **psychological perspectives**, and links to coverage elsewhere, at https://thepsychologist.bps.org.uk/coronavirus-psychological-perspectives

# Disaster response training



*Professor Jim McManus*

**Chaplains in Hertfordshire have recently been trained to support members of their communities following major, life-changing disasters. The programme of training was established after lessons were learned from national disasters including the Grenfell Tower fire and Manchester Arena bombing.**

The programme has been implemented by Hertfordshire County Council's Public Health Department and the Hertfordshire Partnership University NHS Trust as part of the Local Health Resilience Partnership.

The specialist training has been provided to 60 chaplains from a range of faith groups, as well as counsellors from non-faith backgrounds, who work in hospitals and hospices, the police, railway, Stansted Airport, churches, and community organisations including the YMCA.

Professor Jim McManus, Co-Chair of the Hertfordshire Local Health Resilience Partnership and Director of Public Health at Hertfordshire County Council, said that while he hoped the county would never again experience major events like the Hatfield and Potters Bar rail crashes it was important to be prepared. 'Getting the response right prevents damage to people and organisations. Our training identifies the issues and presents the latest research findings and best practice. Chaplaincy and Spiritual Care teams are ideally placed to understand and respond to traumatic incidents, and for many agencies have a dedicated role in their emergency response plans. It makes sense to build their skills and expertise in this area.' ER