Understanding the reception of public health messages in public-facing communications is of key importance to health agencies in managing crises, pandemics, and other health threats.

Since its outbreak in December 2019, COVID-19 has reinforced the importance of effective and timely public health messaging, which had to be swiftly adapted to reflect new and emerging scientific evidence related to different aspects of the virus and its transmission.

Taking a community-focused approach, our study combined corpus linguistics with a public survey and interactions with a Public Involvement Panel (PIP) to analyse real-world public health discourse. We explored the reception of public health messages to understand the efficacy of different messaging strategies in the COVID-19 context.

In this post, we share some highlights from our survey analysis of open text feedback to examples of Coronavirus messaging.

Full project findings will be released in the form of a guide for message writers on our website soon.

Health communication strategies
Through a public survey, we explored the effectiveness of established public health communications strategies including self-efficacy messaging, fear appeals, and moralising messaging, which were all used during the Coronavirus pandemic.

- Self-efficacy messages provide specific harm-reducing instructions, offering the audience a sense of control over the risk factors and inspiring confidence that it is possible to collectively achieve a positive health outcome.
- Fear appeals are persuasive messages that emphasise the harmful physical or social consequences of non-compliance.
- Moralising messages promote the consequences of specific health risks, using moralised persuasion to appeal to social values and influence social health norms.

Our survey respondents were 1089 adults ages 16-75 in Great Britain weighted across age, income, social grade, and region. We asked them to provide open-text feedback to
the question: *Looking at this public health communication, what do you think the key message is? And what is your reaction to this?*

The first message we showed in the survey was an example of a **self-efficacy message** taken from the ‘Do Your Bit’ campaign. It was NHS branded and asked for people to wear a mask, keep two meters distance, and wash their hands in NHS buildings. These are specific harm reducing instructions with a reason for why people should comply – to keep patients and staff safe.

![Self-efficacy messaging from the ‘Do Your Bit campaign’](image)

The next messaging was an example of threat or **fear appeal messaging**. This example came from the stay home, protect the NHS and save lives campaign. The effectiveness of fear appeals is said to be influenced by perceptions of the benefits of taking action, as well as internal (e.g., symptoms) and external (e.g., mass media campaigns) factors.

![Fear appeal messaging from the ‘Stay Home, Protect the NHS, Save Lives’ campaign](image)

Finally, this example of **moralising messaging** was also taken from the stay home, protect the NHS, save lives campaign. This is one from a series of ‘look them in the eyes’ messages, which featured various individuals who had experienced poor outcomes from the virus.

![Moralising messaging from the ‘Stay Home, Protect the NHS, Save Lives’ campaign](image)
We used corpus linguistic software called Sketch Engine to identify keywords in 3025 responses using sketch engine to pull out the keywords in the responses to each question in turn.

Note: Keywords are words that appear statically more saliently in a focus corpus (in this case our survey responses) than a reference corpus (usually a corpus of general language use). We the .uk web domain sub-corpus from EnTenTen20 as a reference corpus. EnTenTen20 is available from Sketch Engine and contains 100,437,519 words of English gathered from the web; the .uk subcorpus represents 7.9% of the full corpus.

We categorised the keywords into semantic (meaning) categories or topics as shown here:

<table>
<thead>
<tr>
<th>Topic classification</th>
<th>Self-efficacy messaging</th>
<th>Fear appeal messaging</th>
<th>Moralising messaging</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coronavirus and virus</td>
<td>covid, spread, virus</td>
<td>covid, virus, spread,</td>
<td>covid, virus, infect,</td>
</tr>
<tr>
<td>trajectories</td>
<td></td>
<td>catch</td>
<td>consequence</td>
</tr>
<tr>
<td>Measures and messaging</td>
<td>facemask, mask,</td>
<td>Distancing, distance,</td>
<td>rule, vaccinate, bend,</td>
</tr>
<tr>
<td></td>
<td>distancing, precaution,</td>
<td>2m, social, rule, safe,</td>
<td>breaking, precaution</td>
</tr>
<tr>
<td></td>
<td>sanitise, wash, safe,</td>
<td>precaution, apart, stay,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>rule, protect, wear,</td>
<td>mask, risk, keep,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>distance, socially,</td>
<td>protect</td>
<td></td>
</tr>
<tr>
<td></td>
<td>guideline</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliance</td>
<td>obey, comply, adhere</td>
<td>obey</td>
<td>obey, adhere, comply</td>
</tr>
<tr>
<td>Evaluation</td>
<td>sensible, informative,</td>
<td>scaremongering, scare</td>
<td>scaremongering, selfish,</td>
</tr>
<tr>
<td></td>
<td>boring</td>
<td></td>
<td>blackmail, scary, scare</td>
</tr>
<tr>
<td>Institutions</td>
<td>nh[s]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional states</td>
<td>cautious</td>
<td></td>
<td>guilt, guilty, sad</td>
</tr>
<tr>
<td>Health states</td>
<td>immune</td>
<td></td>
<td>ill, vulnerable</td>
</tr>
<tr>
<td>Social actors/groups</td>
<td>everyone, everybody,</td>
<td></td>
<td>boris</td>
</tr>
<tr>
<td></td>
<td>nobody</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closed class</td>
<td>doesn’t</td>
<td>don’t</td>
<td>don’t, didn’t</td>
</tr>
</tbody>
</table>

For each messaging example, we then carried out a close, qualitative analysis of all the survey responses containing at least one of the top 25 keywords.

Self-efficacy messaging

Survey responses indicated that the self-efficacy messaging was generally effective. Most people responded positively towards it, and they reported that they were willing to follow the guidance. 15 of 28 responses featuring the word ‘comply’ contained such
personal testimony (‘Really self-explanatory and I would comply’ and ‘happy to comply’ (six responses).

Our respondents interpreted the instructions as both easy to achieve and the obvious, sensible thing to do. The NHS source and hospital context was important to those weighing up whether they should abide by the rules and sometimes this was the deciding factor. For example, one respondent said, ‘I would be happy to comply but only because it was a hospital’.

We found limited resistance to the messaging in the extracts we looked at, but it was present in responses. One respondent mentioned concerns over ‘authoritarianism’ and another simply says they ‘will not be complying with any of this’. These were not salient views.

Several respondents said the messaging was ‘clear’ and ‘informative’ and this was reflected in the wider corpus as well as the extracts we examined. One person said they liked the guidance because it was ‘informative and not too judgemental’, which indicates that the lack of a moral element in this guidance is a positive thing. However, seven respondents judged the messaging to be ‘boring’, which suggests that there is improvement to be made to the design. On the whole, responses to this messaging highlighted that our respondents self-reported as compliant generally, which allowed us to make better observations about resistance to the other messaging types we examined.

**Fear appeal messaging**

Overall, we found the fear appeal messaging to be ineffective and, at times, problematic. We found polarised responses to this messaging. For example, the keyword *scare* was used in two very different ways: some people used it dismissively (as in ‘Scare tactics which i [sic] wouldn’t take any notice of’, or ‘It’s just propaganda designed to scare people’) whereas others used ‘scare’ to report feelings of fear this image brings up for them, saying they felt ‘scared stiff’ or they found it ‘scary and frightening’.

This messaging either produced fear in people who read it or it caused people to reject the messaging on the basis that it is propaganda designed to deceive them. This is supported by responses containing ‘scaremongering’, which infers that the messaging is untruthful and something to be dismissed. We found evidence of possible messaging fatigue (someone said they were ‘sick of scaremongering’) and the suggestion that messaging is not landing (‘scaremongering to try to get the message across’).
Most respondents interpreted the messaging correctly indicating that they understood it, but far fewer people self-reported that they would follow the guidance than for the self-efficacy messaging.

**Moralising messaging**

![Image](https://example.com/moralising-messaging)

The moralising messaging triggered a range of strongly negative emotional responses. Respondents reported feeling ‘sad’ (28 instances), ‘shocked’ (4 instances), ‘scared’ (5 instances) and ‘uncomfortable’ (2 instances). In limited cases, an emotional response caused people to want to comply – or at least self-report compliance (e.g., ‘It is emotional and makes you want to comply’).

Several respondents interpreted the message as one of blame directed at them (e.g., ‘This woman is ill and it's your fault’) and compliant people were upset at the implication that they have not been following the rules. One said: ‘It is horrendous. It is making innocent people feel guilty and affecting their mental health’. This is further supported by the phrase ‘guilt tripping’ (15 instances).

Some favourable responses referenced ‘guilt’ and ‘guilt tripping’ as though it is a constructive approach to take. These respondents felt it was a good way of getting people to listen, or they hinted that they felt it was deserved – like this person who said ‘it's trying to make people who don't go by the rules feel guilty. I'm good with it’.

We also found insults where non-compliant people are described as ‘idiots’ (e.g., ‘Makes me cross when Covid-idiots won't obey rules meant to protect everyone’; ‘She's ill, she needs to be protected, don't be an idiot, follow guidance’), or lacking in intellect (‘Not sure that most of the selfish/thoughtless people in the UK have the intellect to understand the message’).

The responses containing the keyword ‘selfish’ (13 instances) demonstrated just how divisive and polarising this material can be for some people (e.g., ‘This is clearly aimed at those selfish individuals who think they know better and have no social care for anyone but themselves’). These respondents felt that rule breakers did so for their
own personal gain without considering the effect this might have on others, particularly on the ‘vulnerable’ (28 instances). One respondent reported maintaining feelings of anger towards those who broke the rules (‘I was and still am angry at the general public, for being so selfish that they choose to not follow the rules, in order to protect the vulnerable’).

We found that negative emotional reactions to the messaging were often linked to resistance and dismissiveness of its content. In certain cases, we found respondents rejected this messaging outright (not interested; big turn off). Though a subset of the population will resist engaging with messaging that promotes self-limiting behaviours, several of our respondents are disengaging from this messaging as a result of its presentation, meaning that disengagement is to some extent avoidable here.

**Next steps**

We are currently working to extend our work on this project to explore the capabilities of a privacy-preserving approach to gathering public feedback on health communications at a larger scale.

A guide for message writers will be available on our website shortly. Other project reports are now available.

---

Enquiries about the Coronavirus Discourses project should be directed to: Professor [Svenja Adolphs](mailto:svenja.adolphs@swansea.ac.uk).


Banner imagery reproduced with permission from Shutterstock.