RESEARCH ARTICLE OPEN ACCESS

The Three Rs of Fear Messaging in a Global Pandemic: Recommendations, Ramifications and Remediation

Laura Dodsworth[1] | Gemma Ahearne[2] | Robert Dingwall[3,4] | Lucy Easthope[5] | Michael Riordan[6] | Ellen Townsend[7]

[1]Independent Author | [2]Department of Sociology, Social Policy and Criminology, University of Liverpool, Liverpool, UK | [3]Dingwall Enterprises Ltd, UK | [4]Nottingham Trent University, Nottingham, UK | [5]Centre for Death and Society, University of Bath, Bath, UK | [6]Independent Historian | [7]School of Psychology, University of Nottingham, Nottingham, UK

Correspondence: Ellen Townsend (ellen.townsend@nottingham.ac.uk)

ABSTRACT

Introduction: We consider the UK Independent Scientific Pandemic Insights Group on Behaviours' (SPI-B) support for fear messaging during the global COVID-19 pandemic, evaluate the consequences and make recommendations for the future.

Analysis: Using evidence from published documents, we show that SPI-B supported the use of fear messaging during the COVID-19 pandemic. This is inconsistent with the extant psychological literature and contrary to the disaster planning literature. The recommendations regarding fear messaging may have had harmful ramifications and impacts, especially for young people.

Conclusion: We recommend that a wider multidisciplinary expertise is employed to deal effectively, ethically and holistically with future crises. Plans for future pandemics must include meaningful engagement with the public, particularly children and young people.

Summary

- Despite an evidence-base suggesting fear should not be used in pandemics, widespread fear messaging was recommended by UK government advisors and was used to try to effect behaviour change during the COVID-19 pandemic.

- The mass invocation of fear should not have been used in the COVID-19 pandemic and it should not be used in future pandemics.

- Expertise should be drawn from a much wider range of disciplines to advise governments in future pandemics, especially from the social sciences, to help avoid the harms inflicted through COVID-19 policies.

- Involving the public in decision-making using meaningful PPIE should be done now, especially with young people, to avoid repeating the mistakes made in the COVID-19 pandemic.

1 | Introduction

As the sociologist PM Strong (1990) pointed out, all novel bacterial and viral pandemics are accompanied by societal pandemics of fear and action. These societal pandemics normally subside as people assess the actual risk for themselves. The COVID-19 pandemic was unusual in that fear was amplified as a tool of public policy. The potential negative impacts of this strategy were not fully considered. While the UK government justified their strategy on public health grounds, they gave little or no consideration to its impact on the public's health beyond COVID. The established principles for ethical public health interventions appear to have been largely ignored (Miller and Moss 2023; Pykett et al. 2022; Townsend et al. 2020; Wilson et al. 2023), with implications for mental health (Cooper et al. 2021; Owens et al. 2022; Panchal et al. 2023) and child development (Anand et al. 2024; Byrne et al. 2023).

2 | Recommendations and Ramifications of Fear Messaging

In its response to the COVID-19 infection and disease, the UK government turned its back on existing pandemic plans and planners, promoting a myth that this was an unprecedented crisis. Based on previous infectious disease outbreaks, plans of how to communicate complex and uncertain science in an emergency had been developed. These plans balanced the costs and benefits of actions, specifically encouraged voluntary measures and stated that fear was to be avoided in favour of charity and neighbourliness (UK Health Departments 1997, 53–54). Interestingly, these elements of public engagement disappear in the 2005 revision of this document (UK Health Departments 2005). There is a long-standing awareness in both emergency management and public health that any use of fear messaging negatively affects recovery from the harm itself. The former chief medical officer, Donald Acheson, explicitly rejected the use of fear messaging in the 1980s response to the HIV/AIDS pandemic, for example (Burgess 2017). This was a key tenet of advice to the UK government at pandemic response exercises prior to 2019 (Easthope 2022). Indeed, the evidence for potential harms from fear messaging relating to COVID-19 was highlighted by academics in 2020 (Stolow et al. 2020).

Yet, in March 2020, SPI-B (2020, 1–2) concluded, in a widely quoted passage from a paper submitted to the Scientific Advisory Group for Emergencies (SAGE), dated 22 March 2020, that:

> the perceived level of personal threat needs to be increased among those who are complacent, using hard-hitting emotional messaging. To be effective this must also empower people by making clear the actions they can take to reduce the threat.

Yet, the authors continue in a way that reveals their intentions more explicitly:

> A substantial number of people still do not feel sufficiently personally threatened; it could be that they are reassured by the low death rate in their demographic group (citation omitted), although levels of concern may be rising (citation omitted).

In fairness, it should be acknowledged that the evidence of James Rubin (2023), SPI-B Chair, to the UK Covid-19 Inquiry concedes that the wording is unfortunate and points to a range of other SPI-B documents that place more emphasis on education rather than threat. Nevertheless, his statement also shows that enthusiasm for fear-based messaging was widespread among policy actors and that SPI-B's efforts to counter this had limited impact.

COVID-19 is a serious disease for the elderly and frail and for small groups of younger people with compromised immune systems, who were, consequently, most at risk. These were not, however, the targets SPI-B identify who needed to increase their sense of threat: the complacent. The personal characteristics of the people deemed to be 'complacent' are not specified nor is it clear how they could be identified. These individuals may well have correctly ascertained that they were at low risk from COVID-19 given the stratification of risk according to age and co-morbidity. This was established even before the March 2020 national UK lockdown (World Health Organisation 2020). Arguably, the 'complacents' were actually doing a reasonable job of risk perception (Kekst CNC 2020), so increasing their personal threat was unnecessary, inappropriate and unethical. Across domains, it has long been known that increased fear leads to increased estimates of risk that do not reflect actual risk (Chanel and Chichilnisky 2009; Sunstein and Zeckhauser 2011).

Systematic reviews of psychological research prior to the pandemic concluded that fear-based messaging at scale should be avoided (Peters, Ruiter, and Kok 2013, 26).

> When restricted to mass media, it will probably be wisest to resort to a behaviour change method that does not involve emphasising negative consequences of a behaviour, and if that cannot be avoided, at least make sure the communication is not threatening, emotional or confronting.

The Peters et al. review is cited in the SPI-B paper (SPI-B 2020), but its conclusion was ignored. In the APEASE evaluation grid (Appendix B), SPI-B rate the use of the media to increase the sense of personal threat as highly acceptable and practicable. The SPI-B paper (p. 4) includes an interesting disclaimer:

> Much of the evidence that has been drawn on is very recent and has not been subject to peer review. In some cases, the source is a SPI-B paper that involves expert opinion. This report has been put together rapidly and been subject to limited scrutiny and review.

Nevertheless, Reicher et al. (2023, 652) state:

> ... if threat communications are necessary to produce protective behaviours, they are not sufficient. Just telling people they face danger—just like not telling them—leaves them helpless to deal with it. It is only if you ensure that they also know what to do in order to stay safe, and also that they have the resources to do it, that you empower them to overcome the dangers they face. Such a combined approach has been repeatedly shown to be effective.

Crucially, the sources they relied upon to substantiate this claim refer to situations where humans need to stop a behaviour completely, and have much more control over their own risk exposure (e.g. texting while driving), than is the case in a pandemic. Although there is some evidence to support using strong fear messaging for *total* behavioural change

(Simpson 2017; Soames Job 1988), emergency planners had been warning for years prior to the COVID-19 pandemic that the use of fear was a blunt instrument (Easthope 2022). Moreover, a meta-analysis by de Hoog et al. (2007, 280)—which was included in the Peters et al. review—concluded '...that extremely "fear-arousing" messages are no more effective than messages that simply state the negative consequences of a certain behavior'.

Instead of targeting the 'complacent', as recommended by Reicher et al. (2023), the government adopted a whole population approach. A number of highly contentious campaigns were directly voiced by Health Secretary Matt Hancock. One campaign that ran in Preston, UK, utilised 'hard hitting emotional messaging' through fear amplification and guilt induction, with slogans such as 'Don't kill Granny'. This was a particularly inappropriate message to convey to children, some of whom would inevitably lose their grandparents through no fault of their own.

Even if lives were potentially saved by calibrating instances of under-estimated risk, there are wide-ranging harms to mental and physical health by inducing fear through mass campaigns. Fear is a key facet of anxiety disorders (APA 2013) and is closely associated with anxiety and depression (e.g. Kessler et al. 2005), which increased during the pandemic, especially among young people (Lifestyles Team, NHS Digital 2020; Owens et al. 2022). We have also seen the emergence of COVID-19 anxiety syndrome (Nikčević and Spada 2020) in which sufferers' well-being is impaired through unhelpful coping in relation to COVID-19 threat (excessive avoidance of social situations and people, continuous worry and checking of own and loved ones' symptoms of COVID-19 infection).

Furthermore, it is well established in the psychological literature that amplification of emotion (i.e. of fear and anxiety) leads to people's narrowing of attention on emotional stimuli at the cost of learning and remembering health relevant information (Coman 2022; Rozin and Royzman 2001; Strange et al. 2010). Therefore, excessive use of fear leads to a less rather than well-informed public during a time of crisis, and consequently, such use of excessive emotion should be avoided during a pandemic.

Covert nudges used at scale on a whole population do not have public consent or respect individual rights to autonomy and self-determination. The government recognised this; the document MINDSPACE, which the Cabinet Office and Institute for Government co-authored (Dolan et al. 2010, 66), observes that 'A lack of conscious control also has implications for consent and freedom of choice'. It goes on to warn that 'if government is seen as using powerful, pre-conscious effects to subtly change behaviour, people may feel the relationship has changed: now the state is affecting "them"—their very personality' (67).

One of the founders of the government's Behavioural Insights Team has expressed concern about the overreach of behavioural psychology and nudging during the pandemic (Ruda 2022). Its current director went to some lengths in a podcast to rebut suggestions that they, rather than SPI-B, were responsible

for fear-based messaging, which he accepted was ineffective (Halpern n.d.).

On 6 January 2021, several psychologists, from a range of backgrounds, wrote to the British Psychological Society (BPS) about the use of strategies to gain mass compliance, including fear, scapegoating and covert nudging, which contravened the society's ethical guidelines (Sidley 2021). The society has a robust code of ethical conduct (BPS 2021), yet it initially declined to investigate whether its own ethical standards had been breached and subsequently dismissed the complaint. In his witness statement, Professor Rubin (2023, 87) argues that it was not for SPI-B to consider questions of ethics and they had expected the Moral and Ethical Advisory Group (MEAG) to cover those issues. It is, however, clear that MEAG had little input to pandemic management (Pykett et al. 2022; Wilson et al. 2023). Rubin's argument is that SPI-B had no jurisdiction to comment on the ethical implications of its reports under its terms of reference or professional obligation under the division of responsibility between scientists and ministers. We think that view should be more widely debated.

3 | Remediation

Providing advice to governments at times of crisis can be perilous (Easthope 2022). Emergency planners were concerned that when a pandemic arrived and when the most serious national risk was actualized (HM Government 2020), the government would behave in exactly the way that it did, fuelling the societal pandemics of fear and action.

Stripped of fear and coercion, what would real empowerment look like? We contend that a clear explanation of harms, a well-crafted set of actions describing what behavioural changes are needed and a list of places to get useful help would have sufficed, without recourse to emotive messages invoking the death or murder of close relatives. The health department's response to HIV/AIDS in the 1980s points the way on this.

A significant step forward in making holistic and compassionate policy decisions in future health crises would be to embed meaningful public and patient involvement and engagement (PPIE) into policy development (work that is co-created 'with' or 'by' the **public**, not done 'to', 'for' or 'about' them) (Health Research Authority 2024). PPIE is now standard in both research and practice related to health in the United Kingdom (Townsend et al. 2020), helping to ensure that policies are appropriate and facilitating public acceptance. It is especially important to include children and young people in these discussions. Given the disproportionate impact the COVID-19 pandemic and associated restrictions have had on their lives (Lifestyles Team, NHS Digital 2020; Owens et al. 2022; Park and Walsh 2022), we owe them this. It is possible to do this even in a pandemic, rapidly and at scale (Seedhouse 2020), but should be done now to avoid repeating the mistakes made in the COVID-19 pandemic.

The way that scientific advice in emergencies is provided in the United Kingdom is fatally flawed, and a fundamental overhaul

is needed. We note an important conclusion from the chief medical officer's report on the COVID-19 pandemic (Department of Health and Social Care 2023) stating (Chapter 11):

> Sometimes independent scientists had strong views on policy choices. Informed debate is important, but the blurring of science advice and policy opinion could cause confusion.

In future, expertise must be recruited from a broader range of disciplines, particularly the social sciences, and networks that connect with the real living conditions of marginal and socially excluded groups. SPI-B was originally drawn from a much wider pool of advisers but became narrowly focused on behaviour change to the exclusion of other psychological expertise on mental health, child and adolescent development and effective communication.

We write during a period of inquiry, when no one should be immune from self-reflection. We are pleased to see that work is already being funded to support this important process (https://shameandmedicine.org/). The BPS should reconsider its decision not to review and debate the ethical standards of its members involved in advice to government and its enactment in messaging. Indeed, all those involved in scientific advice to government should consider their own ethics, biases and cognitive dissonance (especially in relation to justifying advice given during the pandemic). The deliberate effort to amplify fear should never have been put forward in the first place. Advisors did not object on public record to the mass evocation of fear and the resultant harms. This must never happen again.

Author Contributions

L. D. and E. T. conceived the study and drafted the manuscript. R. D. and E. T. revised the manuscript in response to reviewer comments. All authors contributed to analysis, wrote sections of the manuscript, edited it and reviewed it.

Conflicts of Interest

L. D. is the author of *A State of Fear: How the UK Government Weaponised Fear During the Covid-19 Pandemic* published by Pinter & Martin in 2021. She received travel reimbursement for delivering a talk about 'A State of Fear' to the Iceland free speech society.

R. D. has been a member of the Committee on Ethical Aspects of Pandemic Influenza (CEAPI), the New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG), the Joint Committee on Vaccination and Immunisation (JCVI) and the DHSC Moral and Ethical Advisory Group (MEAG). Through his personal services company, Dingwall Enterprises Ltd, he has also undertaken paid consultancy for AstraZeneca on general issues relating to vaccine hesitancy and received fees from a number of magazines and newspapers for articles commenting on aspects of the COVID-19 pandemic.

E. T. is a past trustee of the charity Collateral Global.

References

American Psychiatric Association. 2013. *Diagnostic and Statistical Manual of Mental Disorders*. 5th ed. Washington, DC: Author.

Anand, P., R. S. Patil, P. Puri, S. Patil, and S. Langare. 2024. "The Psychosocial Effects of Lockdown due to the COVID-19 Pandemic on Children in 2021." *Cureus* 16, no. 2. https://doi.org/10.7759/cureus.53614.

British Psychological Society. 2021. *Code of Ethics and Conduct*. Leicester, UK: British Psychological Society. https://doi.org/10.53841/bpsrep.2021.inf94.

Burgess, A. 2017. "The Development of Risk Politics in the UK: Thatcher's 'Remarkable' but Forgotten 'Don't Die of Ignorance' AIDS Campaign." *Health, Risk & Society* 19, no. 5–6: 227–245. https://doi.org/10.1080/13698575.2017.1380173.

Byrne, S., H. Sledge, R. Franklin, et al. 2023. "Social Communication Skill Attainment in Babies Born During the COVID-19 Pandemic: A Birth Cohort Study." *Archives of Disease in Childhood* 108: 20–24.

Chanel, O., and G. Chichilnisky. 2009. "The Influence of Fear in Decisions: Experimental Evidence." *Journal of Risk and Uncertainty* 39: 271–298.

Coman, A. 2022. "Psychological Insights into Information Processing During Times of Crisis." *Journal of Applied Research in Memory and Cognition* 11, no. 3: 338–345. https://doi.org/10.1037/mac0000054.

Cooper, K., E. Hards, B. Moltrecht, et al. 2021. "Loneliness, Social Relationships, and Mental Health in Adolescents During the COVID-19 Pandemic." *Journal of Affective Disorders* 289: 98–104.

de Hoog, N., W. Stroebe, and J. B. F. de Wit. 2007. "The Impact of Vulnerability to and Severity of a Health Risk on Processing and Acceptance of Fear-Arousing Communications: A Meta-Analysis." *Review of General Psychology* 11, no. 3: 258–285. https://doi.org/10.1037/1089-2680.11.3.258.

Department of Health and Social Care. 2023. Accessed March 2024. https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk.

Dolan, P., M. Hallsworth, D. Halpern, D. King, and I. Vlaev. 2010. "MINDSPACE: Influencing Behaviour Through Public Policy." Cabinet Office and Institute for Government.

Easthope, L. C. 2022. *When the Dust Settles: Stories of Love, Loss and Hope From an Expert in Disaster*. London: Hodder & Stoughton.

Halpern, D. n.d. "Project Fear." Retrieved 19 October 2023. https://podcasts.apple.com/gb/podcast/project-fear/id1692342248?i=1000619747289.

HM Government. 2020. "National Risk Register 2020 Edition." https://assets.publishing.service.gov.uk/media/6001b2688fa8f55f6978561a/6.6920_CO_CCS_s_National_Risk_Register_2020_11-1-21-FINAL.pdf.

HRA. 2024. Accessed 4 March 2024. https://www.hra.nhs.uk/planning-and-improving-research/best-practice/public-involvement/.

Kekst CNC. 2020. Covid-19 Opinion Tracker. Accessed 30 March 2023. https://www.kekstcnc.com/media/2793/kekstcnc_research_covid-19_opinion_tracker_wave-4.pdf.

Kessler, R. C., P. Berglund, O. Demler, R. Jin, K. R. Merikangas, and E. E. Walters. 2005. "Lifetime Prevalence and Age-of-Onset Distributions of DSM-IV Disorders in the National Comorbidity Survey Replication." *Archives of General Psychiatry* 62: 593–602. https://doi.org/10.1001/archpsyc.62.6.593.

Lifestyles Team, NHS Digital. 2020. "Mental Health of Children and Young People in England, 2020: Wave 1 Follow Up to the 2017 Survey." https://digital.nhs.uk/data-and-information/publications/statistical/mental-health-of-children-and-young-people-in-england/2020-wave-1-follow-up.

Miller, D., and A. Moss. 2023. "Rethinking the Ethics of the Covid-19 Pandemic Lockdowns." *Hastings Center Report* 53, no. 4: 3–9. https://doi.org/10.1002/hast.1495.

Nikčević, A. V., and M. M. Spada. 2020. "The COVID-19 Anxiety Syndrome Scale: Development and Psychometric Properties." *Psychiatry Research* 292: 113322. https://doi.org/10.1016/j.psychres.2020.113322.

Owens, M., E. Townsend, E. Hall, T. Bhatia, R. Fitzgibbon, and F. Miller-Lakin. 2022. "Mental Health and Wellbeing in Young People in the UK During Lockdown (COVID-19)." *International Journal of Environmental Research and Public Health* 19, no. 3: 1132. https://doi.org/10.3390/ijerph19031132.

Panchal, U., G. Salazar de Pablo, M. Franco, et al. 2023. "The Impact of COVID-19 Lockdown on Child and Adolescent Mental Health: Systematic Review." *European Child & Adolescent Psychiatry* 32: 1151–1177. https://doi.org/10.1007/s00787-021-01856-w.

Park, W. J., and K. A. Walsh. 2022. "COVID-19 and the Unseen Pandemic of Child Abuse." *BMJ Paediatrics Open* 6, no. 1: e001553. https://doi.org/10.1136/bmjpo-2022-001553.

Peters, G.-J. Y., R. A. C. Ruiter, and G. Kok. 2013. "Threatening Communication: A Critical Re-Analysis and a Revised Meta-Analytic Test of Fear Appeal Theory." *Health Psychology Review* 7: S8–S31. https://doi.org/10.1080/17437199.2012.703527.

Pykett, J., S. Ball, R. Dingwall, et al. 2022. "Ethical Moments and Institutional Expertise in UK Government COVID-19 Pandemic Policy Responses: Where, When and How Is Ethical Advice Sought?" *Evidence & Policy*: 1–20. https://doi.org/10.1332/174426421X16596928051179.

Reicher, S., J. Drury, S. Michie, and R. West. 2023. "The UK Government's Attempt to Frighten People Into Covid Protective Behaviours Was at Odds With Its Scientific Advice." *BMJ* 380: 652. https://doi.org/10.1136/bmj.p652.

Rozin, P., and E. B. Royzman. 2001. "Negativity Bias, Negativity Dominance, and Contagion." *Personality and Social Psychology Review* 5, no. 4: 296–320. https://doi.org/10.1207/S15327957PSPR0504_2.

Rubin, J. 2023. "Witness Statement of Professor James Rubin - Module 2 (M2/SAGE/01/JR)." UK Covid Inquiry. https://covid19.public-inquiry.uk/documents/inq000148418-witness-statement-of-professor-james-rubin-dated-13-april-2023/.

Ruda, S. 2022. "Will Nudge Theory Survive the Pandemic?" *Unherd.Com*. https://unherd.com/2022/01/how-the-government-abused-nudge-theory/.

Seedhouse, D. 2020. *The Case for Democracy in the COVID-19 Pandemic*. London: SAGE Publications Ltd. https://doi.org/10.4135/9781529757163.

Sidley, G. 2021. "The Ethics of Using Covert Strategies—A Letter to the British Psychological Society (II)." https://www.coronababble.com/post/the-ethics-of-using-covert-strategies-a-letter-to-the-british-psychological-society-ii.

Simpson, J. K. 2017. "Appeal to Fear in Health Care: Appropriate or Inappropriate?" *Chiropractic & Manual Therapies* 25, no. 1: 27. https://doi.org/10.1186/s12998-017-0157-8.

Soames Job, R. F. 1988. "Effective and Ineffective Use of Fear in Health Promotion Campaigns." *American Journal of Public Health* 78, no. 2: 163–167. https://doi.org/10.2105/AJPH.78.2.163.

SPI-B. 2020. "Options for Increasing Adherence to Social Distancing Measures." https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/887467/25-options-for-increasing-adherence-to-social-distancing-measures-22032020.pdf.

Stolow, J. A., L. M. Moses, A. M. Lederer, and R. Carter. 2020. "How Fear Appeal Approaches in COVID-19 Health Communication May Be Harming the Global Community." *Health Education & Behavior* 47, no. 4: 531–535. https://doi.org/10.1177/1090198120935073.

Strange, B. A., M. C. W. Kroes, J. E. Fan, and R. J. Dolan. 2010. "Emotion Causes Targeted Forgetting of Established Memories." *Frontiers in Behavioral Neuroscience* 4: 175. https://doi.org/10.3389/fnbeh.2010.00175.

Strong, P. M. 1990. "Epidemic Psychology: A Model." *Sociology of Health & Illness* 12, no. 3: 249–259.

Sunstein, C., and R. Zeckhauser. 2011. "Overreaction to Fearsome Risks." *Environmental and Resource Economics* 48: 435–449.

Townsend, E., E. Nielsen, R. Allister, and S. A. Cassidy. 2020. "Key Ethical Questions for Research During the COVID-19 Pandemic." *The Lancet Psychiatry* 7, no. 5: 381–383. https://doi.org/10.1016/S2215-0366(20)30150-4.

UK Health Departments. 1997. "Multiphase Contingency Plan for Pandemic Influenza." https://webarchive.nationalarchives.gov.uk/ukgwa/20070212120000/http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en14e3.html.

UK Health Departments. 2005. "UK Health Departments' Influenza Pandemic Contingency Plan." https://webarchive.nationalarchives.gov.uk/ukgwa/20070212120000/http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/enb7fe.html.

Wilson, J., J. Hume, C. O'Donovan, and M. Smallman. 2023. "Providing Ethics Advice in a Pandemic, in Theory and in Practice: A Taxonomy of Ethics Advice." *Bioethics* 38: 213–222. https://doi.org/10.1111/bioe.13208.

World Health Organisation. 2020. "Report of the WHO-China Joint Mission on Coronavirus Disease 2019 (COVID-19)." World Health Organisation.