- 1 The three Rs of Fear Messaging in a Global Pandemic: Recommendations,
- 2 Ramifications, and Remediation.
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6 7 **Abstract**

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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.

11 12

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

15 the extant psychological literature and contrary to the disaster planning literature.

16 The recommendations regarding fear messaging may have had harmful

17 ramifications and impacts, especially for young people.

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19 **Conclusion**: We recommend that wider multidisciplinary expertise is employed to

20 deal effectively, ethically, and holistically with future crises. Plans for future

21 pandemics must include meaningful engagement with the public, particularly children 22 and young people.

22 23

24 Introduction

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26 As the sociologist PM Strong (1990) pointed out, all novel bacterial and viral pandemics are accompanied by societal pandemics of fear and action. These 27 societal pandemics normally subside as people assess the actual risk for 28 29 themselves. The Covid-19 pandemic was unusual in that fear was amplified as a tool 30 of public policy. The potential negative impacts of this strategy were not fully considered. While the UK government justified their strategy on public health 31 grounds, they gave little or no consideration to its impact on the public's health 32 beyond Covid. Established principles for ethical public health interventions appear to 33 have been largely ignored (Townsend et al., 2020; Pykett et al., 2022; Miller & Moss, 34 2023; Wilson et al., 2023), with implications for mental health (Owens et al, 2022; 35 36 Cooper et al, 2021, Panchel et al, 2023) and child development (Anand et al 2024,

37 Byrne et al, 2023).

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39 Recommendations and Ramifications of Fear Messaging

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In its response to the COVID-19 infection and disease, the United Kingdom

42 government turned its back on existing pandemic plans and planners, promoting a

43 myth that this was an unprecedented crisis. Based on previous infectious disease

outbreaks, plans of how to communicate complex and uncertain science in an

- 45 emergency had been developed. These plans balanced the costs and benefits of
- 46 actions, specifically encouraged voluntary measures and stated that fear was to be
- avoided in favour of charity and neighbourliness (UK Health Departments, 1997, pp.
 53–54). Interestingly, these elements of public engagement disappear in the 2005
- 49 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 in 1 messaging negatively affects recovery from the harm itself: the former Chief Medical 2 3 Officer, Donald Acheson, explicitly rejected the use of fear messaging in the 1980s 4 response to the HIV/AIDS pandemic, for example (Burgess, 2017). This was a key tenet of advice to the United Kingdom government at pandemic response exercises 5 prior to 2019 (Easthope, 2022). Indeed, the evidence for potential harms from fear 6 messaging relating to COVID-19 was highlighted academics in 2020 (Stowlow et al, 7 8 2020). 9 Yet, in March 2020, SPI-B (2020, pp. 1–2) concluded, in a widely-quoted passage 10 from a paper submitted to the Scientific Advisory Group for Emergencies (SAGE), 11 12 dated 22 March 2020, that: 13 14 the perceived level of personal threat needs to be increased among those 15 who are complacent, using hard-hitting emotional messaging. To be effective 16 this must also empower people by making clear the actions they can take to 17 reduce the threat. 18 19 Yet the authors continue in a way that reveals their intentions more explicitly: 20 A substantial number of people still do not feel sufficiently personally 21 threatened; it could be that they are reassured by the low death rate in their 22 demographic group (citation omitted), although levels of concern may be 23 rising (citation omitted). 24 In fairness, it should be acknowledged that the evidence of James Rubin (2023), 25 SPI-B Chair, to the UK Covid-19 Inquiry concedes that the wording is unfortunate 26 27 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 28 29 enthusiasm for fear-based messaging was widespread among policy actors and that 30 SPI-B's efforts to counter this had limited impact. 31 32 COVID-19 is a serious disease for the elderly and frail, and small groups of younger people with compromised immune systems, who were, consequently, most at risk. 33 These were not, however, the targets SPI-B identify who needed to increase their 34 sense of threat: the complacent. The personal characteristics of the people deemed 35 to be 'complacent' are not specified nor is it clear how they could be identified. These 36 individuals may well have correctly ascertained that they were at low risk from 37 COVID-19, given the stratification of risk according to age and co-morbidity. This was 38 established even before the March 2020 national United Kingdom lockdown (World 39 Health Organisation, 2020). Arguably, the 'complacents' were actually doing a 40 reasonable job of risk perception (Covid Opinion Tracker, 2020) so that increasing 41 their personal threat was unnecessary, inappropriate and unethical. Across domains 42 it has long been known that increased fear leads to increased estimates of risk that 43 44 do not reflect actual risk (Chanel et al 2009, Sunstein et al, 2011). 45 46 Systematic reviews of psychological research prior to the pandemic concluded that 47

47 Systematic reviews of psychological research prior to the pandemic concluded that
 48 fear-based messaging at scale should be avoided (Peters et al., 2013, p. 26).

1 2 When restricted to mass media, it will probably be wisest to resort to a behaviour change method that does not involve emphasising negative 3 4 consequences of a behaviour, and if that cannot be avoided, at least make 5 sure the communication is not threatening, emotional or confronting. 6 7 The Peters et al review is cited in the SPI-B paper (SPI-B, 2020) but its conclusion was ignored: in the APPEASE evaluation grid (Appendix B) SPI-B rate the use of the 8 9 media to increase the sense of personal threat as highly acceptable and practicable. 10 The SPI-B paper (p. 4) includes an interesting disclaimer: 11 Much of the evidence that has been drawn on is very recent and has not been 12 13 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 14 subject to limited scrutiny and review. 15 16 17 Nevertheless, Reicher and colleagues (2023, p. 652) state: 18 19 ... if threat communications are necessary to produce protective behaviours, 20 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 21 they also know what to do in order to stay safe, and also that they have the 22 23 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. 24 25 Crucially, the sources they relied upon to substantiate this claim refer to situations 26 27 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 28 pandemic. While there is some evidence to support using strong, fear messaging for 29 total behavioural change (Soames Job, 1988; Simpson, 2017), emergency planners 30 had been warning for years prior to the COVID-19 pandemic that the use of fear was 31 a blunt instrument (Easthope, 2022). Moreover, a meta-analysis by de Hoog et al 32 (2007) - which was included in the Peters at al review concluded (p. 280) "... that 33 34 extremely 'fear-arousing' messages are no more effective than messages that simply 35 state the negative consequences of a certain behavior." 36 37 Instead of targeting the 'complacent', as recommended by Reicher et al. (2023), the 38 government adopted a whole population approach. A number of highly contentious campaigns were directly voiced by Health Secretary Matt Hancock. One campaign 39 40 which ran in Preston, United Kingdom, utilised 'hard hitting emotional messaging' 41 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 42 43 of whom would inevitably lose their grandparents through no fault of their own. 44 45 Even if lives were potentially saved by calibrating instances of under-estimated risk, 46 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 47 associated with anxiety and depression (e.g. Kessler et al, 2005), which increased 48 49 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 1 Syndrome (Nikčević & Spada, 2020) in which sufferers' well-being is impaired 2 through unhelpful coping in relation to COVID-19 threat (excessive avoidance of 3 social situations and people, continuous worry and checking of own and loved ones' 4 5 symptoms of COVID-19 infection). 6 7 Furthermore, it is well established in the psychological literature that amplification of emotion (ie. of fear and anxiety) leads to people's narrowing of attention on emotional 8 stimuli at the cost of learning and remembering health relevant information (Coman, 9 2022; Strange et al., 2010; Rozin & Royzman, 2001). Therefore, excessive use of fear 10 leads to a less, rather than well-informed public during a time of crisis, and 11 12 consequently such use of excessive emotion should be avoided during a pandemic. 13 14 Covert nudges used at scale on a whole population do not have public consent or 15 respect individual rights to autonomy and self-determination. The government recognised this; the document MINDSPACE which the Cabinet Office and Institute 16 17 for Government co-authored (Dolan et al., 2010, p.66) observes: 'A lack of conscious control also has implications for consent and freedom of choice'. It goes 18 on to warn (p.67) that 'if government is seen as using powerful, pre-conscious effects 19 20 to subtly change behaviour, people may feel the relationship has changed: now the state is affecting "them" - their very personality'. 21 22 23 One of the founders of the government's Behavioural Insights Team has expressed 24 concern about the overreach of behavioural psychology and nudging during the 25 pandemic (Ruda, 2022). Its current Director went to some lengths in a podcast to 26 rebut suggestions that they, rather than SPI-B, were responsible for fear-based messaging, which he accepted was ineffective (Halpern, n.d.). 27 28 29 On 6 January 2021 several psychologists, from a range of backgrounds, wrote to the 30 British Psychological Society (BPS) about the use of strategies to gain mass compliance, including fear, scapegoating and covert nudging, which contravened the 31 Society's ethical guidelines (Sidley, 2021). The Society has a robust code of ethical 32 conduct (BPS, 2021) yet it initially declined to investigate whether its own ethical 33 34 standards had been breached and subsequently dismissed the complaint. In his witness statement, Professor Rubin (2023, p. 87) argues that it was not for SPI-B to 35 36 consider questions of ethics and they had expected the Moral and Ethical Advisory 37 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 38 39 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 40 41 responsibility between scientists and ministers. We think that view should be more 42 widely debated. 43 44 45 Remediation

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47 Providing advice to governments at times of crisis can be perilous (Easthope, 2022).

48 Emergency planners were concerned that when a pandemic arrived, and the most

49 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 andaction.

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Stripped of fear and coercion, what would real empowerment look like? We contend 4 5 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 6 7 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 8 9 the way on this. 10 A significant step forward in making holistic and compassionate policy decisions in 11 future health crises would be to embed meaningful Public, Patient Involvement and 12 13 Engagement (PPIE) into policy development. PPIE (work that is co-created 'with' or 'by' the **public**, not done 'to', 'for' or 'about' them) (Health Research Authority, 2024). 14 PPIE is now standard in both research and practice related to health in the UK 15 (Townsend et al., 2020), helping to ensure that policies are appropriate and 16 17 facilitating public acceptance. It is especially important to include children and young people in these discussions. Given the disproportionate impact the COVID-19 18 pandemic and associated restrictions have had on their lives (Lifestyles Team, NHS 19 20 Digital, 2020; Owens et al., 2022; Park & Walsh, 2022), we owe them this. It is possible to do this even in a pandemic, rapidly and at scale (Seedhouse, 2020), but 21 should be done now to avoid repeating the mistakes made in the COVID-19 22 23 pandemic. 24 25 The way that scientific advice in emergencies is provided in the United Kingdom is 26 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 27 28 (Department of Health and Social Care, 2023) stating (Chapter 11): 29 30 Sometimes independent scientists had strong views on policy choices. 31 Informed debate is important, but the blurring of science advice and policy 32 opinion could cause confusion. 33 34 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 35 36 marginal and socially excluded groups. SPI-B was originally drawn from a much 37 wider pool of advisers but became narrowly focused on behaviour change, to the 38 exclusion of other psychological expertise on mental health, child and adolescent 39 development and effective communication. 40 41 We write during a period of inquiry, when no one should be immune from self-42 reflection. We are pleased to see that work is already being funded to support this important process (https://shameandmedicine.org/). The British Psychological 43 Society should reconsider its decision not to review and debate the ethical standards 44 45 of its members involved in advice to government and its enactment in messaging. 46 Indeed, all those involved in scientific advice to government should consider their own ethics, biases and cognitive dissonance (especially in relation to justifying 47 48 advice given during the pandemic). The deliberate effort to amplify fear should never 49 have been put forward in the first place. Advisors did not object on public record to 50 the mass evocation of fear and the resultant harms. This must never happen again.

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19 20 21 22	Author contributions
23 24 25	LD and ET conceived the study and drafted the manuscript. RD and EJT revised the manuscript in response to reviewer comments. All authors contributed to analysis, wrote sections of the manuscript, edited it, and reviewed it.

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28 Conflicts of interest

- 29 LD is the author of 'A State of Fear: How the UK government weaponised fear during the
- 30 Covid-19 pandemic' (Pinter & Martin, May 2021). She received travel reimbursement for
- 31 delivering a talk about 'A State of Fear' to the Iceland free speech society.

- 1 RD has been a member of the Committee on Ethical Aspects of Pandemic Influenza (CEAPI),
- 2 the New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG), the Joint
- 3 Committee on Vaccination and Immunisation (JCVI) and the DHSC Moral and Ethical
- 4 Advisory Group (MEAG). Through his personal services company, Dingwall Enterprises Ltd,
- 5 he has also undertaken paid consultancy for AstraZeneca on general issues relating to
- 6 vaccine hesitancy, and received fees from a number of magazines and newspapers for
- 7 articles commenting on aspects of the COVID-19 pandemic.
- 8
- 9 ET is a past trustee of the charity Collateral Global.
- 10