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COVID-19, its novel vaccination and fake news – What a brew

ABSTRACT

In times of crisis conspiracy theories propagate because they can seem appealing. During the COVID-19 pandemic, misinformation and disinformation have spread widely, threatening to drown out credible sources of information. The outbreak has been accompanied by a massive infodemic: an overabundance of information that is communicated without deliberate malice; disinformation have spread far and wide, threatening to drown out credible sources of information. Misinformation is defined as false information that is communicated without deliberate malice; disinformation is false information that is communicated with the intent to deceive [2]. As stated by the World Health Organisation (WHO), the COVID-19 outbreak and response has been accompanied by a massive infodemic: an overabundance of information – some accurate and some not – that makes it hard for people to find trustworthy sources and reliable guidance when they need it [3]. Infodemic refers to a large increase in the volume of information associated with a specific topic and whose growth can occur exponentially in a short period of time due to a specific incident, such as the current pandemic [3].

The aim of this commentary is to analyse the dangerous role of fake news and misinformation while the world is in thrall to COVID-19. It begins with a short discussion on post-truth and emo-truth and describes how emo-truth political manifestations are examples of toxic masculinities’ aggression. It will also look at the politicisation of masks and how misinformation can hinder compliance to mask adherence. The refusal to wear a mask also became a widely recognized sign of toxic masculinity in reporting around the world. The second half of the paper deals with the role of false truths in fake treatment and public trust in vaccines against COVID-19. The use of fake products and medicines results in a major risk to the health and safety of patients and need to be taken seriously. Political polarisation and online misinformation are also threatening vaccination programmes worldwide, with public trust best described as fickle, volatile and varying widely between countries. In this concoction of fake news, fake treatments and public distrust it is imperative not to capitalise on fears and politicise an already fraught situation. It is only then that public health officials will successfully convey evidence based information.

1. Introduction

“Dúirt bean liom go ndúirt bean léi—a woman told me that a woman told her”—Irish proverb.

When pandemics manifest, novel and sometimes unscientific ideas proliferate as to how they can be prevented, treated and cured. Conspiracy theories propagate because “people have an epistemic need to know the truth and they also have an existential need to feel safe. In times of crisis these needs are unmet so conspiracy theories can seem appealing” [1]. During the COVID-19 pandemic, misinformation and disinformation have spread far and wide, threatening to drown out credible sources of information. Misinformation is defined as false information that is communicated without deliberate malice; disinformation is false information that is communicated with the intent to deceive [2]. As stated by the World Health Organisation (WHO), the COVID-19 outbreak and response has been accompanied by a massive infodemic: an overabundance of information – some accurate and some not – that makes it hard for people to find trustworthy sources and reliable guidance when they need it [3]. Infodemic refers to a large increase in the volume of information associated with a specific topic and whose growth can occur exponentially in a short period of time due to a specific incident, such as the current pandemic [3].

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2. Post-truth and Emo-truth

Over the last few months, posts from the WHO and the US Centres for Disease Control (CDC) have cumulatively only achieved several hundred thousand engagements, considerably eclipsed by hoax and conspiracy theory sites, which have amassed over 52 million views [4]. This serves to emphasise the popularity of unverified sources of information. Fake news predates the internet and distorts truth indiscriminately regardless of countries and borders. The false messages that we have witnessed tend to contain common features. They claim to have inside information, but no reference is provided to support the alleged source. The tone of a post from a social media platform is often alarmist, implying that if the suggested action is ignored, serious consequences will occur. The motivation behind creating these messages is unclear but might relate to attention seeking behaviour and conspiracist ideation [5]. Anxiety, fear and the beguiling temptations offered to a vulnerable patient group provide the unscrupulous with incentives for lucrative quackery and exploitation. During a pandemic, fuelled by alarmist saturation publicity, and propagated by social media, the contagion of fear stalks alongside the disease itself [6], resulting in a preparedness on the part of a cross-section of patients or potential patients to panic, to suspend rationality and to invest hope in unlikely offerings of prophylactic agents, treatments and cures [7]. A comprehensive analysis of the traditional and online media regarding COVID-19 misinformation revealed that President Trump contributed to approximately 38% of the overall “misinformation conversation” well ahead of “miracle cures” which comprised 26.4% [8]. The Pandemic pseudo-documentary further became a major topic of conspiracy conversations shortly after being posted to YouTube in May. Millions of views...
later the video was debunked for making numerous false claims and removed from most video-streaming platforms [8]. During a pandemic, this is especially worrying as more people than usual are spending time at home searching online for answers to the threats about which they have read or which they have seen reports on television. In such a context, false claims, misinformation narratives and rumour-mongering on social media can achieve high levels of currency.

While science is perceived as potentially offering a haven of truth and an outright refuge for the general public, the perceived rectitude of this pillar is being undermined by post-truth utterances [9]. Coined by Steve Tesich in 1992 [10], post-truth describes a mostly political setting whereby debate is framed by appeals to emotion, with repeated assertion of half-truths and outright lies, while facts are dismissed. Post-truth is aided and abetted by the peddling of fake news, journalism that comprises deliberate misinformation or hoaxes. Post-truth phenomena (weaponisation of fake news, conspiracies and misinformation) can usefully be viewed through a lens of aggressive emotion and masculinity, called emo-truth politics [11]. Emo-truth is a particular form of aggressive masculine performance of trustworthiness, corresponding to a code for recognizing it, resulting in a legitimated status of the popular truth-teller, and at odds with more official scientific, institutional truth-tellers [12].

Emo-truth thrives in an era that is also characterized by, if not post-truth, then at least generalized distrust. Emo-truth political performances are examples of toxic masculinities’ aggression. The problematic masculinity showcased in some popular COVID-19 responses – Trump, Bolsonaro and Orban, most spectacularly – is often described as “toxic” or “fragile”, meaning threatened by anything associated with perceived femininity. It is further associated with physical strength, sexual conquest, a lack of any emotions signifying vulnerability, domination, control and violence [13].

A plethora of news articles have documented and condemned the cavalier attitude several male leaders have shown toward the virus, which point to their emo-truth character. Bolsonaro, Trump, Johnson and Putin all diminished the importance of the “little flu”, or the “moderate risk”, which does not require masks or refraining from handshakes [14]. Consequently, their citizens, imitating this diminishment discourse, flouted local government guidelines for self-isolation, social distancing and mask-wearing. The most spectacular examples in New York being armed protests and aggressive defiance of attempts to stifle “individualism” and “freedom” [15]. The Brazilian president Jair Bolsonaro, a far-right populist, has also been ignoring scientific advice on COVID-19 and downplaying the seriousness of the pandemic to the point of beginning a political crisis by accusing state governors, mayors, and the media of hysteria, of exaggerating the coronavirus threat, and of taking measures that would seriously harm the country’s economy. Following Trump’s, he also became a strong defender of the widespread use of chloroquine and hydroxychloroquine against COVID-19 as if they were a panacea that would save thousands of lives, even though there is no consistent scientific evidence that these drugs can have an effect against the coronavirus [16].

3. The politicisation of masks

A spectacular feature of coronavirus emo-truth political performances that shows conjectural and perhaps more national specificities is the unmasked men. The refusal to wear a mask became a widely recognized sign of toxic masculinity in reporting around the world, perhaps the most notorious poster children being once again Johnson, Putin, Bolsonaro and Trump.

The manner in which individuals in the community respond to the threat of a respiratory infection is influenced by their beliefs with regard to the efficacy of the intervention and the perceived costs of protective behaviours [17]. Behavioural change is highly contingent on the communication of risk, the individual appraisal of risk and the perceived ability to make the change [18]. However, it is not limited to this. The recommendations of experts are (or in a rational world, ought to be) a key source of information for the public [19], and can be effective in correcting misinformation [20]. Thus, understanding how the public responds to the recommendations of experts and government sources is crucial for guiding ongoing public communication efforts. Furthermore, the effects of government agencies’ recommendations—and the agencies’ corresponding credibility—illustrate the importance of national leadership and clear guidance in times of crisis. Trump’s repeated refusal to wear masks in public is a great exemplar of emo-truth toxic masculinity [21]. Toxic emo-truth politics are contagious, for toxic masculinist responses to coronavirus and comprise a populist mirror reflection of those spotlighted by executive emo-truth-tellers. Arguably, the most disturbingly spectacular performance of unmasked toxicity was waged by armed men, who stormed the Michigan (USA) courthouse to intimidate lawmakers before a vote to extend the lockdown. Their individual freedom allegedly “threatened”, they opposed “government tyranny” manifest in lockdowns, social distancing and mask “imposition” [22]. These men demonstrated a disregard for truth claims about the seriousness and/or dangers of the virus or, perhaps more prominently, a disregard for the collective danger the virus poses.

4. The fight against fake treatment

The use of fake products and medicines results in a major risk to the health and safety of patients. These products are potentially dangerous and could increase resistance to real treatments and lead to new diseases, disability or even death. Non-evidence-based remedies are spreading across different populations and endangering the lives of individuals, particularly those with low health literacy.

In the United States, there has been controversy over discussions about injecting disinfectants into patients with COVID-19 infection or treating them with ultraviolet rays [23]. There were notable increases in inhalational exposures, as well as exposures to bleach products and alcohol-based sanitizers [24]. Even though chloroquine derivatives are not approved treatments for COVID-19, there has been a great deal of media attention surrounding the potential therapeutic benefit of the drugs. Due to the media attention surrounding chloroquine, an Arizona man died after ingesting chloroquine phosphate (an additive to household products meant to treat fish parasites) in an effort to prevent himself from getting infected with coronavirus. [25]. In Madagascar, there were claims of a herbal coronavirus “cure” produced from the artemisia plant, yet the WHO stated that the tonic is not evidence-based and is potentially toxic [26]. Promoting unproven COVID-19 treatments will only worsen the current healthcare crisis, as a significant sector of the population will certainly experiment with these remedies. As a result, health care systems may become overwhelmed with many critically ill patients, from both COVID-19 and those with toxicity from non-evidence-based treatments.

In a similar plot, in the prescient film “Contagion” directed by Steven Soderbergh, blogger Alan Krumwiede also pushes forsythia – a floral homeopathic tincture – as the cure for the virus, although studies had not proved it worked. He appeared to have recovered from the virus shortly after taking forsythia and anxious customers clamoured for prescriptions of the remedy from their local pharmacies as well as on Krumwiede’s blog [26]. He attracted over 12 million followers and made several million dollars from the false claim. His character can be described as the “index patient” for what becomes a “parallel epidemic of fear and panic” based on mistrust of news media, the government and health officials [27]. Most importantly it resonates with the current times in this pandemic.

5. Public trust in vaccines

Political polarisation and online misinformation are also threatening vaccination programmes worldwide, with public trust best described as fickle, volatile and varying widely between countries. Indeed, vaccine
hesitancy may be fuelled by health information obtained from a variety of sources [28]. As access to technology has improved, social media has attained global penetrance. Due to the easy access of information and misinformation, perceptions about vaccines are much more volatile than they used to be. It is therefore vital that with new and emerging diseases, with threats such as the COVID-19 pandemic, public attitudes are regularly monitored. Governments need to be particularly vigilant in assessing public trust in vaccines and responding rapidly to concerns. As scientists race against time for the development of a new vaccine against coronavirus, the public is keen on thoroughness, effectiveness and safety. Indeed, vaccines undergo rigorous testing and must go through several human trials. Phase three – the biggest trial – is the most crucial stage because it ensures the efficacy of a vaccine and ascertains whether there are any rare and serious side effects. Phase three trials are huge with tens of thousands of individuals to assess whether the vaccine-induced immune response is strong enough to actually protect people from the virus [29]. Proving this would pave the way for a vaccine to become publicly available.

A combined phase one and phase two trial of the Oxford vaccine against COVID-19 has demonstrated that it is safe – with only short-term side-effects and no serious unexpected events reported – and that it elicits an immune response. Phase 3 is now underway. Oxford and its international partners have already vaccinated approximately 17,000 people in the first three countries selected (the UK, Brazil and South Africa), with a third receiving a control vaccine. Most volunteers are receiving a booster vaccination one to three months after the first, as data from phase one and phase two trials indicate that this strengthens the immune response – although it is not yet clear whether two doses will be necessary to protect against COVID-19 [30]. In stark contrast, the putative Russian vaccine – Sputnik V – has been registered for phases 1 and 2 but no results of these two phases are available for international scientific scrutiny. It has been claimed that this vaccine produces antibodies, but these may not last, may not provide sufficient protection, or may fail for several reasons due to the complexity of the immune system [29]. At this point in time, the international scientific community has no idea whether the Russian COVID-19 vaccine is safe and effective. If Sputnik V does not work or results in some kind of unforeseen adverse event, this could affect the public perception of the vaccination development process. Moreover, an ineffective product could actually worsen the pandemic – those who received the vaccine might stop taking precautions against contracting COVID-19. There is a huge risk that confidence in vaccines would be damaged by a vaccine that received approval and was then shown to be harmful. Moreover the situation, a sizeable group of vaccine-hesitant people is already laying the groundwork on social media to discredit any potential COVID-19 vaccine [31].

6. Conclusion

The politicisation of science for personal purposes, with the peddling of fake news composed of the deliberate selection of facts that politicians wish to pursue and the data they are willing to promote or denigrate is a dangerous source of fake news [8]. This constitutes inaccurate or outright incorrect information that is disseminated and thereby inflated and multiplied by social media and the web. Both scientific fraud and political fake news undermine science and its perceived integrity [32], and medical science is arguably particularly vulnerable as it affects health, a sensitive and personal issue. It has been widely argued that science must face a reality check and not eschew the utilisation of social media in order to disseminate accurate information and debunk misinformation, since the “competition” with fake news, alternate facts, and pseudoscience readily resort to these media [33]. The reality of pandemic vulnerability raises the question of how public health authorities can respond most constructively in the context of the COVID-19 pandemic to meet both conspiracy theories and therapeutic misrepresentations. Firstly, health messages need to be communicated in a calm and effective manner so as not to exacerbate irrational fears and anxieties of the general public. Secondly, there needs to be a continuing flow of medico-scientifically evidence-based education which works toward disabusing members of the community of misunderstandings, fears and fallacies which may otherwise gain popular traction and exacerbate paranoid and anxiety pathologies, as well as render people more prone to victimisation. Lastly, there is a need for governments to be assertive in taking preventative and deterrent action [34]. In this concoction of fake news, fake treatments and public distrust it is imperative not to capitalise on fears and politicise an already fraught situation. It is only then that public health officials will successfully convey evidence based information.

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We give consent for publication of this article.

Declaration of competing interest

There are no conflicts of interest, actual or potential.

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