



## Suicide in the context of infodemic during COVID-19 pandemic: A global perspective

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### ABSTRACT

Surges of technology use along with limited interpersonal interactions have led to the amplification and dissemination of false information during the COVID-19 pandemic. Infodemic refers to an overabundance of information that may have increased burden of covid-19 pandemic and mental disorder. Given the rise of suicide behavior during the pandemic, infodemic has been considered as a risk of suicidal behavior. The aim of this article is to address suicide in the context of infodemic and provide some strategy to adjust the impact of infodemic on mental health.

COVID-19 has been dubbed a digital pandemic due to vast information disseminated in numerous forms since it was initially discovered in Wuhan, China [1]. As the number of affected increased, the amount of material communicated expanded, and social media platforms competed for speed, coverage, and penetration. Over three billion people use social media regularly for extended periods; it has become a dominant source of information and communication, especially during a crisis, regardless of the sources' validity [2]. A substantial amount of the facts shared are either myths, rumours, pseudoscience, or manipulated, contributing to misinformation [3]. According to the health-risk perception theory, the fear of an unknown sickness with no definitive cure causes anxiety, leading to a greater spread of false information by the uninformed [4]. The psychological toll that fake news, rumours, misinformation, and misleading guidelines have on individuals is often underestimated [5]. People browse and disseminate material on social media platforms with no or little verification checks to comfort their anxieties and find answers to ambiguities. False and incomplete information has been demonstrated to cause anxiety and panic [5].

Constant exposure to tragic details about the COVID-19 pandemic can cause significant psychological suffering [6]. Pessimistic and

worrying reports have predominated media, including daily updates on deaths, economic setbacks, and limited food availability. Vulnerable groups such as older adults, intense fear of illness, prediction of empty shelves, potential price increase, and inclination to buy more to stay home had led to panic and impulsive buying during the COVID-19 pandemic [7]. Many people negatively interpreted death rates and empty shelves, leading to misinformation, rumours and sensationalism. Circulating photographs of empty shelves and worried buyers led to the spread of despair and frustration. As such information is generated quickly and unpredictably, it is not easy to ensure its accuracy and truth.

According to the World Health Organisation, an Infodemic is a context with excessive digital and physical information, including misinformation during an infectious outbreak or a health crisis [8]. The Infodemic creates a state of dubiety and could lead to risk-taking behaviours harming physical and mental health. Further, people may mistrust health authorities, disregard reliable health information, and undermine organised public health responses. It is characterised by conspiracy theories and misinformation, making it difficult for the public to discriminate between scientific and untrustworthy data. The ramifications of this phenomenon can cause anxiety, phobia, panic,

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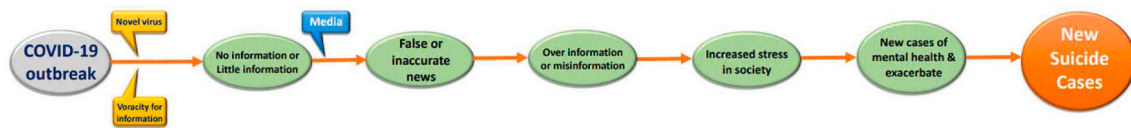


Fig. 1. Flowchart of the Suicide in the context of Infodemic during COVID-19 pandemic.

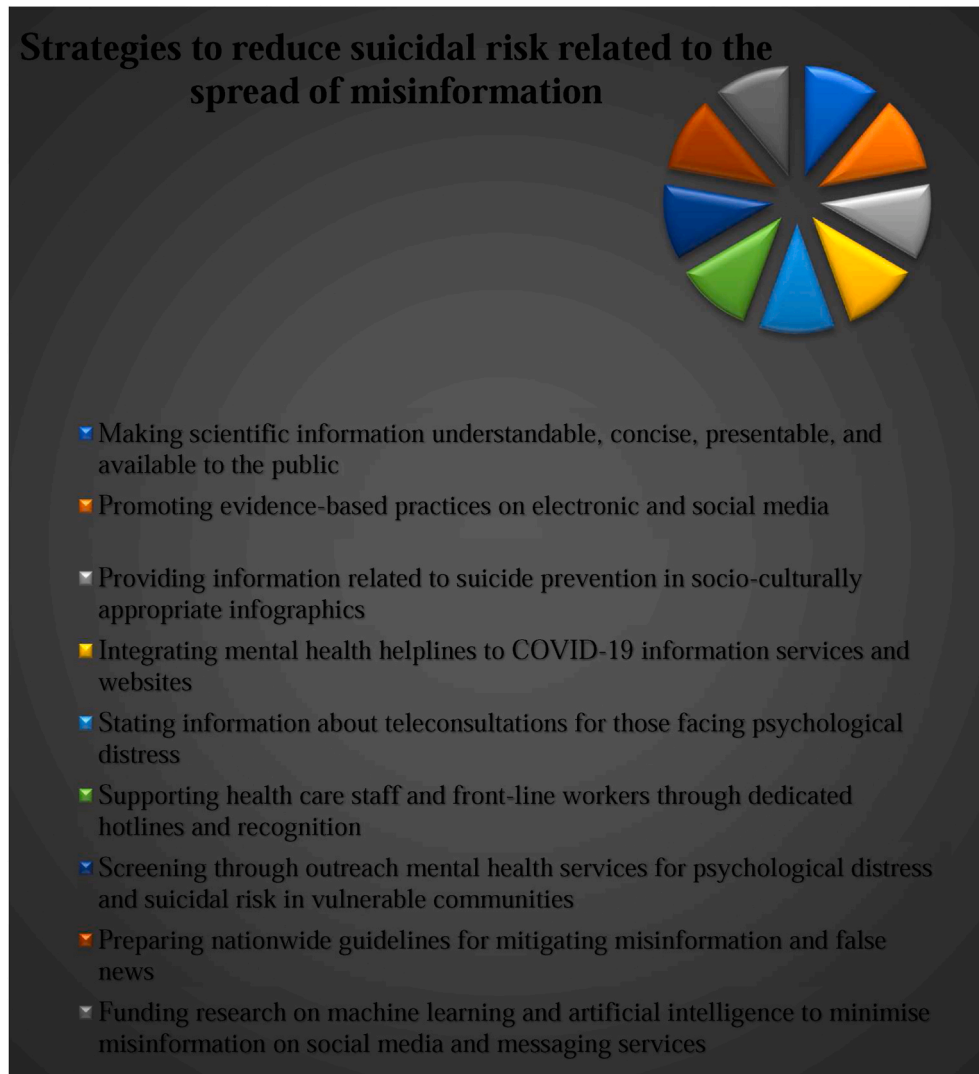


Fig. 2. Strategies to reduce suicidal risk related to the spread of misinformation.

depression, obsessions, irritability, and COVID-19-related paranoia with ultimate maladaptive behaviour such as suicide [9].

Furthermore, suicide and self-harm in the general population are influenced by news coverage of suicidal behaviour. The pandemic has adverse effects that increase the risk of suicide, such as social isolation, unemployment, financial difficulties, and reduced access to mental healthcare [10]. News coverage of suicides should not increase the risk of suicide as it may inspire imitation and lead to the normalisation of suicidal behaviour as an acceptable method to deal with crises [11].

The COVID-19 pandemic has created widespread worry, anxiety, and suffering in the general public and especially among persons with psychiatric problems [12]. Uncertainty is a crucial source of anxiety and is more stressful than knowing definitive negative consequences [13]. Anxiety is provoked by panic-inducing media articles and alarming social media messages. During the 2020–2022 period, the COVID-19 outbreak has dominated the news, giving a bleak, pessimistic

overview of the world and life. In a vulnerable person, suicidal ideas and attempts can be triggered by anxiety, anguish, and uncertainty. Persons with existing psychiatric problems, low resilience, poor coping skills, and chronic physical disorders would be at a higher risk than others [14]. During the COVID-19 pandemic, the healthcare infrastructure was exhausted, and the emphasis on funding and human resource allocation for mental health would have reduced [15]. These often undermine public mental health responses, may increase non-compliance and worsen long-term consequences [16].

A sense of logic grows with time and experience, and those with a higher sense of logic can better comprehend, manage, and make sense of information and stressful situations and deal more effectively with the COVID-19 pandemic. Critical thinking techniques should be applied to neutralise misinformation exposing logical fallacies. Different forms of rhetorical correction, logic-based and humour-based, could be used by individuals exposed to news items [17]. On the other hand,

misinformation also circulates through mobile instant messaging services such as WhatsApp and Telegram, and these services offer private, intimate, and often encrypted communications. Therefore, it is almost impossible to moderate misinformation on them. Thus, these services require adopting relationship-centred and culturally informed approaches in public health promotion to mitigate the spread of false data [18] (Fig. 1).

Misinformation is associated with suicides from various aspects. For example, firearm owners may be exposed to inaccurate data about the relationship between firearms and suicide, leading to current unsafe firearm storage practices and a higher risk for suicide [19]. Also, inaccurate details about psychiatric management may be spread via social media and mobile instant messaging services. This information would lead to fear of obtaining a professional opinion and delayed presentation to services, leading to severe psychopathology and escalated risk of suicide [20]. Further, research about gaming activities has found that sensationalised news media reports could dangerously propagate contagion effects that normalise suicidal behaviours in young people [21].

Combating the Infodemic requires substantial efforts from the global community, especially health professionals, mental health researchers, social media companies, and government institutions. Fig. 2 mentions strategies that may help reduce misinformation and conspiracy theories.

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MMH, MB: conceived the idea, designed the study and drafted the manuscript.

IR, MB, AMS, EK, SP, LJ: conducted literature search and created the illustrations.

PKB, RS, SS, MMH: revised the manuscript critically and refined the illustrations.

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#### Consent

NA.

#### Declaration of competing interest

NA.

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