

A Burgeoning Social Media Infodemic Amid COVID-19 Pandemic : A Cognitive Behavioural Perspective

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ABSTRACT

Introduction : Ever since the outbreak of Covid 19 pandemic, there has been a sudden infodemic about the origin, spread, mitigation and treatment. Through various social media platforms the portrayal of information has impacted millions of people thereby increasing their stress levels, fuelling pre-existing anxieties and leading to cognitive biases and distortions.

Methodology : We reviewed information on portrayal of content by social media and its impact on people. We reviewed how information portrayed by social media had a deleterious impact on people thereby contributing to common errors in thinking.

Results : This paper discusses briefly about how the social media's portrayal of information on COVID-19 has led to common errors in thinking amongst people ranging from arbitrary inference, catastrophization, paranoia, cognitive polarization, overgeneralization, global labelling, emotional reasoning, discounting the positives and jumping to conclusions.

Conclusion : As social media plays a crucial role in disseminating information out to people, it holds a critical responsibility of adequately delivering its content. However as there is no body governing the content of information disseminated, it is imperative for people to be mindful of the content they expose themselves to as well as engage in adequate self-help practices to avoid falling prey to various cognitive distortions.

Keywords: COVID-19, social media, infodemic, cognitive biases, cognitive behavioural perspective.

INTRODUCTION

“We’re not just fighting an epidemic; we’re fighting an infodemic” (WHO, 2020)

It is a historical fact that every outbreak is bound to

accompany a tsunami of information. But a huge difference now is that with the universal presence of social media, information gets amplified and travels faster and further, with rumours and misinformation spreading just like viruses. Ever since the outbreak of Covid 19 pandemic, the internet is continuously brimming with countless bytes of information on its origin, spread, mitigation, treatment and so on. Misleading information spread across various social media platforms adds more fuel to the pre-existing anxiety among people. Under acute stress, this may lead to a number of cognitive

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distortions or biases in thinking. Such errors if not corrected can potentially become fixed beliefs with long term consequences on judgement and decision making. Reports of panic buying behaviour, emotional eating, behavioural addiction along with pertinent illness and death anxiety are few of the many psychological repercussions of errors in thinking in times of uncertainty.^[1,2]

This article elucidates on the common cognitive biases which impact decision making during times of uncertainty, fear, and illness when one is exposed to information overload and miscommunication during times of unprecedented community health crisis.

MISINFORMATION: A COMMON SOURCE OF ERRORS IN THINKING

The use of information by social media has shown to be crucial in making health related, content easily available and accessible to people at large.^[3] It not only encourages health promoting behaviour programmes but also makes people aware of prevention and control strategies. The role of information therefore becomes crucial as it is directly linked to perceptions about healthy and unhealthy behaviour. Moreover every individual's way of responding to the information obtained varies. Individual differences are an important underlying factor which determines the kind of response a person will elicit to the information they're exposed to.

As the information disseminated shapes the perception of people, it becomes necessary for social media platforms to convey information distinctly and in an impartial way. On the positive side information obtained can bring about awareness amongst people, however on the contrary information can also lead to development of unhealthy behaviours in which case the information takes a form of misinformation. As a result of misinformation, an individual might think in an irrational manner or develop various cognitive distortions.

Irrationality in thinking and behaviour might range from milder forms of arbitrary inference to severe cases of paranoia. For instance, in the early months of the pandemic, the media focussed on sanitization and hand washing as key precautionary measures against the

disease spread. People who experienced mild symptoms of seasonal cold jumped to the conclusion that they had contracted the virus. Such errors occur when one arbitrarily infers an experience without substantiating it with any valid evidence. In another report, a suspected coronavirus patient, whose sample was sent for testing committed suicide by jumping off the 7th floor of Safdarjung hospital in New Delhi.^[4] Unfortunately, other incidents of suicide have also been reported due to misconceptions and myths related to COVID 19 making people all the more psychologically vulnerable.

Cognitive theory explains that a situation which is perceived by an individual as highly stressful makes a person more vigilant of the surroundings leading to an overestimation of the potential for danger and catastrophizing. Thus, an individual's appraisal of the event is an important deciding factor of how he/she will respond. If an individual perceives the situation as a threat which is beyond his existing coping resources, stress is a likely response. With the given backdrop of pandemic and unavoidable stress it is essential that people engage in critical thinking while receiving any information. Deficit in critical thinking predisposes a person towards false judgements and cognitive distortions. Critical thinking keeps an individual away from jumping to any conclusions or engaging in any other form of cognitive distortion. In the light of the on-going pandemic, a lot of panic was induced due to people's inaccurate assumptions as well as poor evaluation of the information. Due to the media's portrayal of the condition of infected people on a consistent basis, some people became preoccupied with illness cognition and build up a general negative orientation. Then, even small news of discomfort is subjected to catastrophization and can result in paranoia.

Such biases occur due to the mind's habit of taking the peripheral route of processing information. The tendency to take cognitive short-cuts gets along in the way of central pathways of processing information. Critical thinking and critical appraisal is a product of detailed processing. An individual who looks for authentic sources and then calculates the reliability of information received is able to judge better and then decide accordingly. He isn't carried away in the herd mentality and can appraise a situation calmly without falling prey to errors in thinking.

FROM INDIVIDUAL COGNITION TO COLLECTIVE CONSCIOUSNESS AND VICE-VERSA

Communal prejudices and discrimination are standard examples of cognitive polarization, overgeneralization, and global labelling. An example of communal discrimination amidst the pandemic occurred after the Tablighi Jamat's Nizamuddin event. After the media headline about the Tablighi Jamat's Nizamuddin event an increasing number of new corona virus cases were reported. This followed mistreatment and blame and further strengthening of the pre-existing prejudice against a particular minority population in the country. This is an instance of 'Mirror Image Perception' wherein each group sees its own behaviour as caused by the actions of the other side. Such errors in perception strengthen the 'deindividuation' process and people get more concerned about others' actions rather than taking accountability of their individual responsibility. Similarly, false news was circulated by the United States Commission on International Religious Freedom reporting Hindu and Muslim patients being segregated into different hospital wards in Gujarat.

ACTIONS AMID CRISIS : A THEORETICAL UNDERSTANDING

There was an incident where 11 people suspected of infection and kept in isolation ran away from the hospital in Mumbai. ^[5]

This behaviour was attributed to social media misinformation that COVID causes serious irreversible respiratory damage in everybody. The fleeing away can be understood by trying to understand their cognitions in the context of theory of planned action. The theory of planned action states that the intention is contingent on three aspects- attitude, subjective norm and perceived behavioural control.^[6] The attitude ("I don't want to be isolated like other people who are tested positive for corona virus"), subjective norm ("others are also running away so I can also run") and perceived behavioural control ("running away is an easy option and I can do it") will then determine the intention (should I run or not?). The intention is directly related to execution of the behaviour (running away). Moreover, with the media portrayal of fear during the nation-wide lockdown, a lot of people engaged in panic buying and 'hoarding

behaviour' operating on the cognitive bias of catastrophization and thinking of the worst possible outcome ("the country will run out of ration") which led to poor decision making.

Media bears different impact on people depending on their age and stage of development. During teenage years, adolescents become increasingly self-conscious and hold a belief that others are noticing them. ^[7] Social conformity with others in their age group becomes increasingly important. They engage in behaviours which make them feel accepted by their peers and others around them. Since the corona virus cases are highlighted in by the media, adolescents and teens are following precautions to safeguard themselves. This stems from the belief that others are noticing their behaviour (imaginary audience) and to meet the criteria for social conformity. Invincibility is another characteristic of adolescents that has been associated with risky behaviour. ^[8] Recently media highlighted a case of a tik-tok user aged 25 who made fun of corona virus and mocked at the precautionary measure of wearing masks by people, and later tested positive for corona virus in Madhya Pradesh. Since then, a lot of tik-tok users have posted videos regarding the awareness and the reality of this infectious disease. The media subsequently updated people that not taking adequate precautions can make you test positive for corona virus. As a result of which the adolescents and teens had started taking precautions. The media has constantly been updating people about the trend of infected patients. As the likelihood of becoming infected with corona virus increases with age and the flashing headline provided by the media, the elderly have become cautious and have restricted their movement.

MISINFORMATION ON FAKE REMEDIES : A CULTURALLY ROOTED AND SITUATIONALLY CONDITIONED PHENOMENON

Misinformation spreads faster than a virus when it has an underlying religious connotation. An evident example is that of the members of a particular religious identity applying cow dung on their body as a 'protective shield' against the virus pathogen. From advocating for mass steam inhalation and recommendation of a YouTube video on the use of cow urine diluted with water as a way to defeat Covid-19 or a Facebook post regarding a particular herbal concoction for increasing falling

oxygen levels, bogus claims by prominent people multiply the deleterious effects of pseudoscientific information.^[9] Treatments that rely on easily available materials go viral and spread across the community especially in times of uncertainty and fear for protection. Information then plays a central role in shaping the mass belief system.

THE SECOND WAVE : A TSUNAMI OF WORRY, PANIC AND DESPAIR

As India grapples with a devastating second wave with number of new cases and deaths taking a heavy toll on the existing health infrastructure, the panic is spreading like a wildfire. With the covid-19 running rampant and the prevailing scenario of shortage of oxygen, medicines, beds and mass cremations heavily loaded across the social media, many people are reporting psycho-somatic respiratory complaints due to irresistible panic anxiety.

Studies have also found associations between ongoing pandemic, negative emotions and increased psycho-somatic symptoms.^[10] Perceived threat, biological rhythm and intolerance to uncertainty were factors associated with increased psychosomatic complaints during covid-19 breakout period^[11]. Moderate to high levels of anxiety have been linked with covid-19 which directly has been associated to general somatic symptoms and gastro-intestinal and fatigue symptoms to be specific.^[12]

Moreover due to nature of Covid illness and the fear of being infected, the second wave has also led to possible exacerbation of somatic symptom disorder people.^[13] There have been reports from caregivers of mild symptomatic patients rushing for CT scans. This can be seen as a behavioural outcome of catastrophization and emotional reasoning.

VACCINATION : A THUMBS UP OR A NO?

Vaccine hesitancy is often fueled by both offline and online misinformation surrounding their importance, safety or effectiveness.^[14] Information gaps often build on dormant doubts and increase public cynicism over vaccines.

Researches in the past have identified that both individual

as well as situational factors influence behaviour and attitude toward vaccination. Risk perception and demographic characteristics are the most prominent of these factors.^[16]

The apprehension to get vaccinated amongst the teenagers and youth can also be understood from the lens of social psychology's concept of invincibility wherein hold the belief that nothing can happen to them as result of which they undermine the severity of the nature of covid illness in general. Such a belief fades away as people grow old as they start becoming less apprehensive towards getting vaccinated. This is in line with results of a study wherein older people (55 and above) were found to be less resistant/hesitant than those aged 35-44 years towards getting vaccinated. Moreover the older people were more likely to show their intent to getting themselves vaccinated in case of vaccine availability.^[17]

Moreover media reports of deaths after vaccination are received as 'arbitrary inferences' about the vaccine being 'unsafe'. Pre-occupation with the side-effects and overlooking the benefits is an example of the bias of 'discounting the positives', wherein one undermines the preventive side of vaccines. "If I take it, I am definitely going to have some serious long term side-effects" is known as 'jumping to conclusions', another commonly held cognitive bias in thinking.

As a result a number of individuals now hold apprehensions about getting vaccinated as they think that a vaccine developed in such a short frame of time wouldn't be safe and that without having years of trials, it is difficult to predict the long term side effects of the vaccine.^[15] Consequently, such psychological barriers have the potential to adversely affect the aim of achieving mass coverage and community immunity.

CONCLUDING COMMENTS AND SUGGESTIONS

Regularly checking information and online media feeds can rapidly turn compulsive and counterproductive—adding fuel to pre-existing nervousness amongst people instead of easing it. Due to individual difference, the threshold may differ at which they start feeling uneasy, therefore being mindful of the information one is exposing them to becomes crucial. Moreover limiting media

consumption to a specific time may be deal with feeling overwhelmed. While being exposed to a plethora of information available during the time of COVID, people can avoid falling into the trap of cognitive errors such as catastrophization by gaining some perspective wherein they might think of times in the past which have been worse. This does not mean that people should discount the bad things happening around nor should just sit and wait for things to get better on their own. Rather a healthier way to deal with such a situation is to remind oneself of the things they are in control of and to take appropriate measures on their part. Worrying about things that are not in one's control or ruminating over information that might not be true will only create lead to more anxiety. Hence people should wait a while before they consume the information or belief it to be true. The portrayal of information by media is a risky affair. Reading or watching content based on speculations and fabrications will only serve as a source of misinformation and might even ignite it. Moreover with the on-going pandemic and infodemic, people should pick their sources right. Refer to sources which are authentic and offer a balance of information.

A lot of times people might experience significant distress due to the nature of content they are being exposed to as a result of which the information becomes misinformation. Here the role of mental health professionals (MHA) becomes crucial in order to alleviate the distress of the person and help them gain an understanding of their underlying cognitive processes which are in play and the subsequent distortions and how to rectify that. The MHA can begin to start helping the person by introducing them to the errors in their thinking and asking them for evidence for alternate explanations which might exist for their thinking. Such a view would help them gain an understanding of the situation in a more realistic way.

Overall the way people would heed to the early warnings depends upon whether infodemic causes them to give in to cognitive biases and become all the more fearful or they become mindful and habituated of the impact caused by alerts and safety protocols amidst the infodemic. It is imperative to note that clear, coherent, and consistent information by the government is crucial to building public faith in vaccine programmes. This encompasses explaining essential information ranging from how vaccines work, are developed and approved

to the time needed for protection to generate required effects. Credible and culturally informed health related communication is vital in reinforcement of positive health behaviours.^[18]

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