ABSTRACT

Belief in COVID-19 related conspiracy theories is a widespread and consequential problem that healthcare leaders need to confront. In this article, we draw on insights from social psychology and organizational behavior to offer evidence-based advice that healthcare leaders can use to reduce the spread of conspiratorial beliefs and ameliorate their negative effects, both during the current pandemic and beyond. Leaders can effectively combat conspiratorial beliefs by intervening early and bolstering people's sense of control. Leaders can also address some of the problematic behaviors that result from conspiratorial beliefs by introducing incentives and mandates (e.g., vaccine mandates). However, because of the limitations of incentives and mandates, we suggest that leaders compliment these techniques with interventions that leverage the power of social norms and increase people's connections to others.

COVID-19 conspiratorial beliefs are a threat that healthcare leaders should not ignore. They undermine people's trust in healthcare institutions and medical science and lead to reduced health-protective behaviors, vaccine hesitancy, patient non-compliance, and poor health outcomes.[1] Because conspiratorial beliefs contribute to reduced vaccination rates and increased likelihood of contracting the disease, they are costly, both monetarily and in terms of human lives. For example, estimates suggest that between June and August of 2021 alone, $5.7 billion was spent in additional healthcare costs due to preventable COVID-19 hospitalizations among unvaccinated individuals,[2] and between June and November of 2021, 163,000 COVID-19 deaths could have been prevented by vaccination.[3] In addition, managing patients who espouse COVID-19 conspiracy theories may add stress to the lives of already over-extended healthcare workers.

While it may be tempting to dismiss these beliefs as the purview of a fringe minority, conspiratorial beliefs about COVID-19 are relatively common and, under the right conditions, can be adopted by anyone. For example, recent polling found that 1 in 5 Americans believe that the U.S. government is using the COVID-19 vaccine to microchip the population,[4] and nearly a quarter believe that coronavirus was developed intentionally in a lab.[5] Moreover, healthcare workers are not immune to these conspiratorial beliefs and there have been a number of high-profile incidents in which healthcare workers have promoted COVID-19 conspiracy theories to the public.[6-8] These incidents are particularly troubling because healthcare workers can have significant influence on patients' health-related decision-making, both directly through one-on-one interactions and indirectly through social media and news coverage.

As healthcare leaders face the problems of conspiracy beliefs − both among the general public and the healthcare workers they lead − it is important that they employ evidence-based techniques that can both reduce the spread of conspiracy beliefs and ameliorate their effects. In this article, we draw on the robust social psychology literature examining conspiracy theories to offer actionable recommendations. Although we pay special attention to the current COVID-19 pandemic, the advice offered here can be applied to other harmful conspiracy beliefs, especially those that arise in response to crises.

PREVENTING AND REDUCING CONSPIRATORIAL BELIEFS

Healthcare leaders are well-positioned to tackle the problem of conspiratorial beliefs. The public looks to healthcare leaders as experts who can help them navigate a complex landscape of medical information. Furthermore, healthcare leaders typically have a direct line of communication with other healthcare workers and an ability to disseminate information to the public, putting them in a particularly powerful position to prevent and reduce conspiratorial beliefs. We provide two key suggestions to help healthcare leaders leverage their position to combat conspiracy theories: reaching people before conspiratorial beliefs take hold and bolstering people's sense of control.

Act sooner rather than later

It is crucial to reach people before conspiratorial beliefs have a chance to take hold. While some worry that discussing conspiracy theories will only expose more people to them,

unfortunately, the advent of social media has steeply increased the likelihood that people will eventually be exposed to conspiratorial ideas.[9] Therefore, simply avoiding discussing them is unlikely to appreciably slow their spread. Furthermore, debunking conspiratorial beliefs after they take hold has met with mixed results and can sometimes produce a backfire effect in which people actually strengthen their belief in the conspiracy theory.[10] Instead, the evidence suggests that acting quickly to reach people before or as they are exposed to conspiratorial ideas is more effective than waiting until they have already encountered them.

Pre-bunking, which involves inoculating people before they encounter a conspiracy theory, can effectively combat conspiracy theories that are spreading but have not yet reached everyone. For example, studies have found that people who read anti-conspiracy arguments before encountering a vaccination conspiracy theory showed greater vaccination intentions than those who read the same material after exposure.[11] This inoculation effect holds even when people know that you are attempting to inoculate them to the conspiracy theory.[12] Other studies have found that exposing the manipulative persuasion tactics used to spread conspiracy theories[13] can also reduce the adoption of conspiratorial beliefs if done before exposure. Healthcare leaders can employ these pre-bunking techniques by refuting the specific claims of new conspiracy theories and by exposing common tactics used to spread conspiracy theories, such as the use of emotional language or fake experts that sow doubt about the scientific consensus.

Another effective approach is encouraging people to be more critical consumers of conspiratorial ideas. This can be especially useful when it is done close in time to when people are first exposed to a conspiracy theory. For example, when people are encouraged to think about how convincing a conspiracy theory is, they are less likely to believe in it when exposed immediately afterward.[14] The increased cognitive engagement of thinking about how convinced one was by a conspiracy theory seems to unlock greater critical thinking and reduce subsequent conspiratorial beliefs.[15] This type of intervention is effective even when people are primed to think critically about a topic unrelated to the conspiracy theory. For example, when participants were asked to judge the accuracy of an unrelated headline, they were less likely to share separate misinformation that they encountered afterward.[16] This suggests that a healthcare leader may want to find ways to generally encourage more critical thinking in their followers. In addition, when confronted by conspiracy believers, it may be helpful to respond by asking people to think about how convincing the conspiracy theory really is. This is unlikely to change the mind of the conspiracy theory believer, but it may persuade onlookers being exposed to the conspiracy theory for the first time, and it avoids getting into a potentially counterproductive point-by-point discussion with the conspiracy believer.

Bolster people's sense of control

During periods of crisis, increased uncertainty and feelings of lack of control can make people particularly susceptible to conspiracy theories. [9,17] This is especially true in situations such as the current COVID-19 infodemic. The infodemic is an overabundance of information – both accurate and inaccurate – which can overwhelm people and make it hard for them to know what information to trust. This can heighten people's feelings of uncertainty or lack of control,

increasing their susceptibility to conspiratorial beliefs. Fortunately, research has demonstrated that the relationship between one's sense of control and conspiratorial beliefs is hydraulic, meaning that as one rises the other falls.[18] As a result, when people's feelings of control are bolstered, they reduce their conspiratorial beliefs. By virtue of their position as leaders, healthcare leaders can act in ways that bolster people's sense of control and reduce conspiratorial beliefs. This is because healthcare workers, like all people, turn to their leaders to help them make sense of their environments, especially during periods of change or uncertainty.[19] In fact, helping followers interpret information and crafting a coherent narrative are some of the primary ways that leaders help followers navigate crises like the COVID-19 pandemic.[20] In other words, simply helping people navigate the infodemic by acting as a trusted source of information and sense-making is one way that healthcare leaders can help combat conspiratorial beliefs.

Another effective tactic for healthcare leaders to combat the spread of conspiratorial beliefs within their organizations is to give their employees more control. One way to do this is to create a sense of structure through open communication and setting clear expectations.[21] In rapidly evolving crises, like the COVID-19 pandemic, it can be tempting for leaders to delay decision-making and avoid sharing information until more is known. However, effective leaders help their followers navigate crises effectively – and bolster sense of control at the same time – by not waiting to make decisions and by communicating with followers frequently and transparently.[22]

A final method for increasing sense of control in both followers and the general public is to highlight the control that people already have. The most effective leaders use language that helps increase the self-efficacy of followers and spur them towards action.[23] For example, healthcare leaders can focus on things people can do during the COVID-19 pandemic – such as getting vaccinated and wearing masks – and provide information that will help people take effective action. In addition, by focusing on what people can do to achieve positive outcomes – rather than preventing negative outcomes – leaders can further reduce followers' tendencies to adopt conspiratorial beliefs.[21,24] In this context of COVID-19, this might mean framing the goal as slowing the spread of COVID-19 rather than avoiding getting sick.

MITIGATING THE NEGATIVE CONSEQUENCES OF CONSPIRATORIAL BELIEFS

A less direct but also effective approach to combatting the deleterious effects of conspiratorial beliefs is to lessen their influence on people's behaviors. Many healthcare leaders have tried to address this problem through incentives and mandates. These approaches can effectively alter people's behavior and overcome the objections they may hold. For example, despite a high percentage of unvaccinated adults saying they would quit their jobs if a vaccine mandate was put in place, relatively few of them have done so.[25] Unfortunately, incentives and mandates have some significant drawbacks. First, they may reduce people's sense of control, which may increase conspiratorial beliefs. Second, they tend to target very specific and easily enforced behaviors, such as vaccination. This means that each behavior must be addressed individually, and behaviors that are harder to observe or enforce may go unaddressed. Despite these limitations, we endorse the continued use of incentives and mandates as proven interventions. However, we also offer some additional interventions as complementary

approaches that may not have the same drawbacks: leveraging the power of social norms and increasing connections to others.

Create and highlight social norms

In situations where there are strong social norms, individual differences have less influence over people's behavior,[26,27] In the context of conspiratorial beliefs, this means that strong social norms can mitigate the negative behaviors that would otherwise result from these beliefs. For example, one study found that when people perceived no established norm regarding vaccination, conspiracy mentality reduced vaccination intentions. However, when people believed there was a strong social norm supporting vaccination, conspiracy mentality did not predict vaccination intentions.[27] It is important to note that what matters is not the actual behavioral norm, but rather what people perceive to be the behavioral norm; indeed, people often don't accurately perceive the strength of a behavioral norm.[28] Thus, if many members of a group have conspiratorial beliefs which cause them to incorrectly believe that certain behavior is very uncommon in their group (say, vaccination among Republicans), then correcting this view can reduce the effects of conspiratorial beliefs on that behavior.[29] This may be especially important when the behavior occurs outside of public view, such as with vaccination. In the case of COVID-19, because many of the conspiratorial beliefs that Republicans endorse also cause them to believe that few Republicans have gotten vaccinated, they may be surprised to learn that more than 60% of Republicans have received the vaccine;[30] this knowledge can weaken the relationship between their own conspiratorial beliefs and their vaccination intentions. In other words, if conspiratorial beliefs are artificially reducing perceptions of the prevalence of a desired behavior, or increasing perceptions of the prevalence of an undesired behavior, healthcare leaders can use accurate information about social norms to persuade people to act in productive ways despite their conspiratorial beliefs.

In addition to highlighting existing social norms, healthcare leaders can help create new ones. For example, mandating masking in the workplace may help create a social norm that carries on into the rest of the community by increasing the number of people seen in public wearing masks. Even without a mandate, leaders can take the following actions to create a social norm in their organizations:

1. Foster the social norm by behaving as a role model for others. If someone is unsure about whether to wear a mask at the workplace, they often look at their leaders' behaviors as a guide for themselves. Leaders who consistently wear masks are a clear signal for employees. Similarly, if leaders are openly vaccinated and explicitly express the benefits of vaccination, they convey through their actions that getting vaccinated is beneficial.

2. Use rhetorical techniques to build a social norm. Leaders can start by providing clear and specific guidance about what actions to take. They can then help embed the social norm by connecting it to a shared collective identity.[31] One way to do this is to use collective pronouns to speak about the norm and connect it to the group's values and goals. For example, a leader could emphasize that "as healthcare workers, we wear masks to protect the public and each other."

Increase concern for and connection to others

People who hold conspiratorial beliefs tend to show greater concern for themselves and less concern for others.[32] Highlighting people's connections to and impact on others may therefore weaken the relationship between their conspiratorial beliefs and behaviors that can be harmful to others. This is especially true when it involves people's connection to, or membership in, groups not associated with the particular conspiratorial beliefs that people hold. Conspiracy theories tend to be strongly connected to particular group identities[33] because one of the functions of conspiracy theories is to maintain positive perceptions of the groups that proffer them.[17] When people belong to groups whose social identity is bound up with conspiratorial beliefs that disincentivize certain behaviors, because partaking in these behaviors risks censure or ostracism from fellow group members. The resulting fear of social sanctions can be a powerful motivator. In fact, people often fear ostracism from their social groups as much as they fear death itself.[34] This helps explain why people might get vaccinated in secret, without the knowledge of friends and family,[35] so as not to visibly break what they see as widespread social norms. One way to combat the effects of this phenomenon is by increasing the salience of other social identities that are not connected to the problematic conspiracy beliefs. People carry around many social identities that become more or less salient depending on their social context. Increasing the salience of non-conspiratorial social identities has the dual benefit of highlighting our obligations to others and decreasing the salience of conspiratorial beliefs. For example, conspiratorial social identities often form primarily online, and the importance of these online conspiratorial communities has been heightened during the COVID-19 pandemic due to physical distancing measures.[9] As distancing measures are eased, helping people reconnect with their real-world social groups and increasing the salience of related identities should reduce the effects of conspiratorial beliefs on behaviors such as masking and vaccination. Similarly, because conspiratorial beliefs tend to be tied to partisan identities,[36] emphasizing identities that cut across partisan lines—such as professional or familial identities—could reduce the effects of conspiratorial beliefs. Healthcare leaders can do this by encouraging and providing opportunities for people to reconnect with friends, family, and colleagues and emphasizing shared organizational and professional identities.

CONCLUSION

Healthcare leaders are uniquely positioned to combat conspiratorial beliefs and their negative consequences on both the organizations they lead and on the health of the public. Moreover, by acting proactively to prevent the spread of conspiratorial beliefs, they can prevent these beliefs from becoming entrenched and difficult to dislodge. Healthcare leaders can also help contain and weaken the effects of conspiratorial beliefs even after they have taken hold. We hope that the evidence-based suggestions and tools we have provided above will give healthcare leaders the confidence to act against this ongoing threat.

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