Health Literacy During Pandemic and Education

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Abstract
The coronavirus disease 2019 (COVID-19) pandemic has highlighted the importance of health literacy. This commentary discusses the consequences of poor health literacy and argues that we need to improve health literacy. Better health literacy has the potential to improve community trust, alleviate health disparities, and improve the results of the immediate response required in the early stages of a pandemic. The commentary argues that health literacy has to be addressed as part of mandatory school curriculum. Methods on how to improve and provide equitable access to education are also discussed.

The coronavirus disease 2019 (COVID-19) pandemic has led to major changes in people’s lives. Governments around the world had to impose restrictions as a means to slow down the spread. In many countries, this response has led to people being dependent on the government for information. However, the level of trust in government differs across countries. Trust in institutions is crucial for legitimizing the decisions made by authorities and achieving the cooperation of the citizens.

People’s lack of cooperation with the restrictions imposed in controlling the pandemic has likely caused the problem to be exacerbated. Some of the people who were willing to comply with the requirements might have not properly understood. The countries that controlled best the situations were those that responded quickly to health advice. Even in the current situation, some people believe it is all a big conspiracy theory with misinformation rapidly spreading through social media. This could be a consequence of low health literacy.

For people who do not respect social distancing rules, isolation or lockdown coercive measures were put in place. This approach is a top-down approach that is likely to be encountered with resistance. It is also with a reactive response to an existing problem that has been highlighted by the pandemic, that is, the poor health literacy that exists within the population.

Poor health literacy is not a new problem and has been highlighted in the past. For example, studies have shown that, in the United States, 26% of people have a general low literacy, and in Australia, 59% have inadequate health literacy.

The severity of the current situation has asked people to rapidly acquire information and change their behavior. As a result, educational materials that are easily understandable were developed and were made available for different segments of the population. In a pandemic, when an immediate response is required, improving the health literacy of the population at the same time adds a further layer of complexity to addressing imminent issues. Having some prior knowledge and being able to determine the rationale of a decision could make it easier for people to be intrinsically motivated, learn more, and help in controlling the spread. A cross-sectional community survey in Australia has shown that people with low health literacy had more difficulty understanding prevention behavior and finding and understanding COVID-19 information provided by the government. They were also more likely to spread misinformation about COVID-19.

This asks for a better approach to future pandemics: the need for a preventive rather than a reactive solution for these situations. We need to empower people to understand the risks that occur in this situation and ideally have a bottom-up response in the future. This raises the questions on health literacy and how it could be improved: 1 way to do this is through education, and this has to be done early in life especially because health literacy could further increase existing health disparities.

A Different Approach to Health Literacy
One of the ways to achieve a preventive response to pandemics is to re-think primary and secondary education at a global level—and not only people’s education during a pandemic—but before. Basic health literacy (including epidemiology) knowledge should not only be part of health undergraduate health-related degrees but also part of the mandatory curriculum for all secondary and primary schools if it is not already. We also need to rethink the way it is communicated so that it is engaging and easy for students to translate what they learn at school with what happens during a pandemic.
Technology such as serious games or virtual reality could simulate and help students understand complex topics that would be otherwise difficult to replicate in the classroom either due to the cost or the risks involved. For example, using games to simulate the effect of pandemics, what happens when different decisions are made, and the influence of the different decisions across different stakeholders. A complex phenomenon such as this one would benefit from simulating the consequences of different actions. Games have already been successfully used in teaching and could be an alternative to passive methods of teaching that do not achieve long-term retention.

Games are, however, expensive to create compared with other media types. They require the expertise of different stakeholders and could be difficult to make available in a resource constraint environment. Establishing a set of open-source games that are easily adaptable to different classrooms and contexts, would help. The games need to be easily customized by teachers who do not necessarily have the programming knowledge to allow them to cater to the context in which the teaching happens.

Furthermore, the games should be able to adapt to the different constraints the students and teachers are working with (ie, students with disabilities; resources constraints, such as low bandwidth or cost of connectivity that could be a deterrent). This is to ensure equitable access to education.

There are also drawbacks to using technology in education. Although there is currently a lot of research on the benefits of technology in education, the best ways of using them in the classroom are not yet well defined. This is especially seen in the case of new technologies, such as games and virtual reality. However, as health literacy is labeled a key determinant of health, exploring different alternatives to better engage students with their health should be of great importance. As people from disadvantaged social and socio-economic conditions tend to have low health literacy and low education influences health literacy, improving health literacy should happen as part of children’s mandatory education.

Conclusions

This commentary argues that we need to improve health literacy, and this needs to be part of the mandatory primary and secondary school curriculum. Improving health literacy is a long-term solution that will help in a proactive rather than a preventive response to a pandemic and pay dividends in the long term. Although when a pandemic occurs there is not always a full understanding of the unique characteristics of the pandemic (eg, our understanding of COVID-19 is still evolving), having a basic knowledge could help with how people behave and also accumulate knowledge faster as new information about the pandemic occurs. People’s understanding of infection spreading could help prevent it in the early stages. Later on, it could help people understand the reasoning behind different recommendations and allow for better compliance when the pandemic evolves. This could also allow people to better evaluate the information they receive and avoid spreading misinformation.

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References

1. Nutbeam D. COVID-19: lessons in risk communication and public trust. Public Health Res Pract. 2020;30(2):e3022006.
2. Han Q, Zheng B, Cristea M, et al. Trust in government regarding COVID-19 and its associations with preventive health behaviour and pro-social behaviour during the pandemic: a cross-sectional and longitudinal study. Psychol Med. 2021 March 26:1-11. doi: 10.1017/S003329171001306
3. Luhmann N. Trust and Power. New York: John Wiley & Sons; 2018.
4. Harring N, Jagers SC, Löfgren Å. COVID-19: large-scale collective action, government intervention, and the importance of trust. World Dev. 2021; 138:105236.
5. Zarocostas J. How to fight an infodemic. Lancet. 2020;395(10225):e76.
6. Paakkari L, Okan O. COVID-19: health literacy is an underestimated problem. Lancet Public Health. 2020;5(5):e249-e250.
7. Paasche-Orlow MK, Parker RM, Gazmararian JA, et al. The prevalence of limited health literacy. J Gen Intern Med. 2005;20(2):175-184.
8. Australian Institute of Health and Welfare. Australia’s health 2018: in brief. Cat. no. AUS 222. Canberra 2018. https://www.aihw.gov.au/reports/australias-health/australias-health-2018/contents/indicators-of-australias-health/health-literacy. Accessed June 29, 2021.
9. Salvi C, Frost M, Couillard C, et al. Emergency risk communication: early lessons learned during the pilot phase of a five-step capacity-building package. Public Health Panor. 2018;4(01):51-57.
10. McCaffery KJ, Dodd RH, Cvejic E, et al. Health literacy and disparities in COVID-19–related knowledge, attitudes, beliefs and behaviours in Australia. Public Health Res Pract. 2020;30(4):30342012.
11. Stormacz C, Van den Broucke S, Wosinski J. Does health literacy mediate the relationship between socioeconomic status and health disparities? Integrative review. Health Promot Int. 2019;34(S1):e1-e17.
12. Van Der Heide I, Wang J, Droomers M, et al. The relationship between health, education, and health literacy: results from the Dutch Adult Literacy and Life Skills Survey. J Health Commun. 2013;18(Suppl 1):172-184.
13. Molnar A. Antimicrobial resistance awareness and games. Trends Microbiol. 2019;27(1):1-3.
14. Willingale-Theune J, Manaia A, Gebhardt P, et al. Science education. Introducing modern science into schools. Science. 2009;325(5944):1077-1078.