

Vaccination during the COVID-19 pandemic: how to address the complexity of the phenomenon?

Vacunación durante la pandemia de COVID-19: ¿cómo abordar la complejidad del fenómeno?

Tomás Caycho-Rodríguez^{1*} and Miguel Gallegos^{2,3,4,5}

¹Facultad de Ciencias de la Salud, Universidad Privada del Norte, Lima, Perú; ²Facultad de Ciencias de la Salud, Universidad Católica del Maule, Talca, Chile; ³Facultad de Psicología, Universidad Nacional de Rosario, Rosario, Argentina; ⁴Programa de Pós-Graduação em Psicologia, Pontifícia Universidade Católica de Minas Gerais, Belo Horizonte, Brasil; ⁵Consejo Nacional de Investigaciones Científicas y Técnicas, Buenos Aires, Argentina

Dear Editor,

We have read, with interest, the work of Díaz-Badillo¹ offering a positive outlook on the immunization process in the context of COVID-19 in Mexico. However, we believe that it only vaguely describes the objective mentioned by the authors for the analysis of “confusing messages regarding immunization that are spread over social media,” and the “general recommendations” that would allow to “counteract ambiguous and confusing information received from social media” are not explained either. Precisely, for this end, it is necessary to develop specific research on people's beliefs in science and conspiracy theories, attitudes and behaviors towards vaccines, reasons for acceptance or rejection, trust in the government and sources of information, and social dissemination of scientific information, among others. This is even more important taking into account that people that tend to believe in conspiracies and reject vaccines obtain more information from social media and not healthcare professionals or verified health websites. In this sense, it is necessary to achieve collective immunity against misinformation and conspiracy beliefs to ensure collective immunity against COVID-19. Therefore, the dissemination of information in social media is only one aspect of the

Table 1. Recommendations to improve the COVID-19 vaccination process

- Acknowledging social sciences as the key to the success of vaccination.
- Adequately informing of the benefits, risks, and supply of vaccines.
- Assertively communication, removing wrong information.
- Building public trust in equitable assignment and distribution.
- Providing immunization in safe, familiar, and adequate locations.
- Establishing independent entities to monitor and inform of the public vaccination process.

issue, which must be complemented with other more complex perspectives on the phenomenon. There are several studies on this topic that can be reviewed²⁻⁴. Therefore, we provide some recommendations to make the immunization process more effective⁵, and the main lines of actions are described in table 1.

We believe this information is a starting point to improve the COVID-19 vaccination process, the creation of public policies, and implementation of community programs. Of course, each of these lines of action requires both the participation of professional and the involvement of actors from civil society. Therefore, this information may be taken as a useful tool for the media, healthcare professionals, social organizations, and professors instructing healthcare personnel.

***Correspondence:**

Tomás Caycho-Rodríguez
E-mail: tomas.caycho@upn.pe

Date of reception: 28-01-2022

Date of acceptance: 10-02-2022

DOI: 10.24875/CIRUE.M22000497

Cir Cir (Eng). 2022;90(6):846-847

Contents available at PubMed

www.cirugiaycirujanos.com

2444-0507/© 2022 Academia Mexicana de Cirugía. Published by Permanyer. This is an open access article under the terms of the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Funding

The authors declare that they have received no funding.

Conflicts of interest

The authors state they have no conflicts of interest.

Ethical disclosures

Protection of people and animals. The authors declare that no experiments were carried out on humans or animals for this research.

Data confidentiality. The authors declare that no patient data appear in this article.

Right to privacy and informed consent. The authors declare that no patient data appear in this article.

References

1. Díaz-Badillo A, Garibay-Nieto GN, Navas-Figueroa AL, Perales-Torres AL, Morales-Gómez MC, López-Alvarenga JC. La vacunación en el contexto de la pandemia de COVID-19. *Cir Cir.* 2021;89:836-43.
2. Cascini F, Pantovic A, Al-Ajlouni Y, Failla G, Ricciardi W. Attitudes, acceptance and hesitancy among the general population worldwide to receive the COVID-19 vaccines and their contributing factors: a systematic review. *EClinicalMedicine.* 2021;40:101113.
3. Lazarus JV, Ratzan SC, Palayew A, Gostin LO, Larson HJ, Rabin K, et al. A global survey of potential acceptance of a COVID-19 vaccine. *Nature Med.* 2020;27:225-8.
4. Urrunaga-Pastor D, Bendezu-Quispe G, Herrera-Añazco P, Uyen-Cateriano A, Toro-Huamanchumo CJ, Rodríguez-Morales AJ, et al. Cross-sectional analysis of COVID-19 vaccine intention, perceptions and hesitancy across Latin America and the Caribbean. *Trop Med Infect Dis.* 2021;41:102059.
5. Schoch-Spana M, Brunson EK, Long R, Ruth A, Ravi SJ, Trotochaud M, et al. The public's role in COVID-19 vaccination: human-centered recommendations to enhance pandemic vaccine awareness, access, and acceptance in the United States. *Vaccine.* 2021;39:6004-12.