

Myths about COVID-19 and vaccination in a town in the Sierra region of the State of Hidalgo, Mexico



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ABSTRACT

The COVID-19 disease has had effects on all sectors, which calls for maintaining comprehensive attention to it, the interruption of the transmission of the disease has been achieved thanks to vaccines, its arrival in the communities caused great expectations, but limited and confusing information also circulated, which generated myths and beliefs of the population in relation to COVID-19 and vaccination against it. This work denotes some myths narrated by people in a community, located in the Sierra de Hidalgo, Mexico.

Keywords: COVID-19, Myths, vaccination.

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Introduction

On December 31, 2019, the World Health Organization (WHO) office in China was notified of several cases of pneumonia of unknown etiology (unknown cause) detected in the city of Wuhan, Hubei Province, China [1].

A little over a month after the outbreak began, the WHO announced that the disease caused by the novel coronavirus isolated in Wuhan, China, would be named "COVID-19," which is the short form of "coronavirus disease 2019," while the causative agent was named SARS-CoV-2 by the International Committee on Taxonomy of Viruses [2].

It is significant that COVID-19 represents not only a public health crisis but would affect all sectors, reiterated the WHO, which from the very beginning urged countries to adopt a comprehensive government, societal, and strategic approach to prevent infections, save lives, and minimize the impact [3].

Stopping the spread of COVID-19 depends not only on the efficiency of vaccine distribution but also on the public's willingness to get vaccinated; maintaining interest in the

vaccine remains a major challenge [4]. Communication through official channels and on social media was often confusing for the general public [5]. It is clear that there is limited information on the public's myths and beliefs regarding COVID-19, and reliable medical publications are overshadowed by more accessible social media, which has sometimes disseminated positive information and at other times negative or highly confusing information [6,7].

Myths are commonly regarded as a folkloric genre consisting of narratives or stories that play a fundamental role in the daily lives of human beings. These are often endorsed by leaders, rulers, and religious preachers, and they greatly explain how a society functions and shape people's beliefs. Beliefs, traditions, customs, and cultural and religious rituals play a significant role in shaping the mindset of the public in a particular region or country and influence the spread or acceptance of a myth [8].

Misinformation about public health issues, often resulting from baseless stories, conspiracy theories, and pseudoscience circulating on social media, misleads people [9].

Materials and methods

A quantitative, observational, descriptive, cross-sectional, retrospective study was conducted on a sample of 60 individuals over 18 years of age, including both sexes. The questionnaire was developed based on a review of the literature and previous studies; it was validated using Cronbach's alpha reliability and validity test, with a scale reliability coefficient of 0.8118. The questionnaire consists of 78 items divided into five sections.

Results

Sixty adults participated; the mean age was 44.88 years (standard deviation of ± 14.96); 72% were female, while 28% were male; regarding educational attainment, 12% reported having no formal education, 3% reported having completed primary school, compared to 5% who had completed elementary school; 2% of the study population reported having incomplete secondary education, compared to 28% who had completed secondary school; the percentage of people with incomplete high school education was 7%, compared to 20% who had completed high school; finally, 23% reported having completed a bachelor's degree.

Regarding marital status, 35% are married, 33% are in a common-law relationship, 15% are single, 7% reported being divorced, 7% reported being widowed, and 3% reported being single. Regarding speaking an indigenous language, 88% do not speak an indigenous language, while 12% reported speaking an indigenous language. Regarding having had COVID-19, 35% reported having had the disease, while 65% reported not having had it.

Regarding myths about COVID-19, 60% of the population stated that "the government made it up to control us," 38% said that "the Chinese created the virus," and 2% believed that "it is a ploy to scare people" (Figure 1).

However, regarding the myths circulating in the community about COVID-19 vaccination, 50% stated that "They would insert a chip into us with the vaccine to control us," 33% stated that "People who get vaccinated die," and 17% of the population stated that "The vaccine causes COVID-19" (Figure 2).

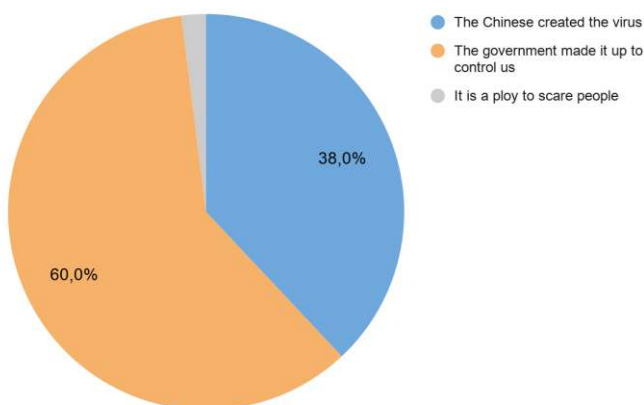


Figure 1: Myths About COVID-19

Source: Direct, 2024

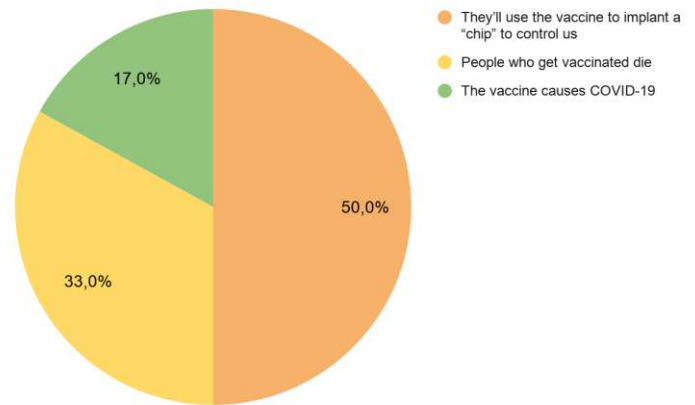


Figure 2: Myths about COVID-19 vaccination

Source: Direct, 2024

Discussion

The COVID-19 pandemic brought about a wide range of impacts; it not only triggered a health crisis but also had social and even cultural repercussions, affecting both developing countries and those considered global powers, as well as small communities and major cities. Within society itself, communication is essential for sharing and disseminating information; with the arrival of COVID-19, countless myths about the disease emerged both within and outside the community.

On numerous occasions, the government was blamed for people's distrust of the reality of the disease; among the myths was the notion that the virus originated in China, leading people to assume that the Chinese had created it; fear and anxiety were a constant concern, and people believed the disease was a ploy to instill fear. In this regard, myths surrounding SARS-CoV-2 were closely linked to myths about vaccination against the disease; people associated the myth of government mass control with the belief that the COVID-19 vaccine would be used to implant a "chip" to monitor us. According to previous studies by Salaverria et al., in their research titled "Disinformation in Times of Pandemic: Typology of COVID-19 Misinformation," these data indicate that, as might be expected, disinformation regarding the COVID-19 pandemic is highly politicized: more than a quarter of the hoaxes are related to government and political issues, primarily concerning the government's direct management, as well as political parties and their members [10].

Regarding the deaths that occurred during the pandemic, people linked vaccination to a possible death; furthermore, since the symptoms of COVID-19 were similar to some side effects of the vaccine, this led people to believe that vaccination would cause the disease, ultimately resulting in death. In this regard, Morice A. & Ávila-Agüero ML., in their study "Myths, Beliefs, and Realities About Vaccines," reiterate that the erroneous association of effects caused by vaccines can create confusion among the population, which will negatively impact immunization programs and strategies for preventing vaccine-preventable diseases [11].

"Actions taken behind closed doors, without the community's knowledge, do not have a positive impact; on the contrary, the results could continue to be negative for both the government and society," which makes it necessary to reinforce the concept of shared responsibility in public health [12]. Community participation in preserving or improving its health status implies shared responsibility; that is, both the community and the authorities must commit to restoring the common good [12] [13].

Community participation depends on a variety of factors, including the fact that community members typically have low levels of education and face socio-economic disadvantages; key issues include malnutrition, lack of access to health services, lifestyles influenced by health determinants, and the lack of academic expertise among those who are supposed to promote health without taking into account local customs and traditions; there is no alignment between what the community needs and what is designed as programs, that is, the same program is applied to all communities without addressing the reality of each community, its needs, its indigenous languages, and other associated factors. Those working with the community must know how to do so; they cannot simply show off to the community. A constructivist approach is required to educate the community and encourage it to become self-managed [14] [15]. There must be consistency between the educational model used in community interventions; simply failing to honestly report on the reality of life in the country—what people are actually experiencing already creates a barrier where only paternalistic actions will prevail, without fostering the development of the people living there. It is then that myths or untrue stories emerge more frequently, leading community members to doubt the effectiveness not only of vaccines but also of the healthcare system and the programs implementing a situation that keeps the community vulnerable for life [15] [16].

Conclusions:

This study prompts reflection on the major challenges facing the healthcare system and calls for actions aimed at protecting and preserving health from a comprehensive perspective that takes into account society's broader views, thoughts, and narratives all of which can positively or negatively influence specific preventive measures, such as COVID-19 vaccination. Efforts are needed to involve organized civil society, academia, the health sector, government, and the legislative branch; this will undoubtedly be essential for creating more comprehensive projects, programs, and policies that is, through shared responsibility.

Undoubtedly, our country's health system requires such integration; this would eliminate inequity, increase access to healthcare as a right, ensure administration by personnel trained in public health management, and prevent the spread of false health information. Consequently, myths and false stories would likely not impact the health of people living in vulnerable communities.

Conflict of interest. The authors declare that there is no conflict of interest regarding the publication of this article.

Artificial intelligence. The authors declare that no artificial intelligence tools were used in any part of this article.

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