

EFFECTS OF BREACH OF IMMUNIZATION OF COVID 19 IN SABANILLA CAMPUS

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Abstract: COVID-19 is an infectious disease caused by the SARS-CoV-2 virus. It originated in the city of Wuhan, China at the end of 2019 and spread rapidly worldwide, becoming a pandemic as declared by the World Health Organization. Common symptoms include fever, cough, tiredness, and shortness of breath. The objective is to determine those of non-compliance with immunization of COVID 19 of the Sabanilla Campus. The material and methods of this research is documentary, carrying out a review of the current state of the subject in the electronic databases Scopus, Latindex, Google academic, Scielo. The review was carried out due to the information collected preferably from the last 5 years. The priority of the Ecuadorian state was to acquire the necessary doses of vaccines already approved by international organizations, to achieve collective immunity. Conclusion: The factors that influence non-compliance with COVID-19 immunization are diverse and complex and essential to address these issues of herd immunity, effective to protect the population against the virus and it is very important to strengthen confidence in safety and effectiveness of the vaccine through accurate information from the Ministry of Health.

Keywords: Viruses, SARS-CoV-2, Vaccines, Immunity, Risk Factors

RESEARCH TOPIC

Factors Influencing Non-Compliance With Covid 19 Immunization Of The Sabanilla Campus In The Period Of May 2023

LINE OF RESEARCH

The Present Scientific Research Work in the Care Management Master's Degree Taxes In Line 2 Contribution To Social Development, Through The Improvement Of Education, Health, And Citizen Security. Program No. 6: Health Care to Improve the Quality of Life.

INTRODUCTION

COVID-19 is an infectious disease caused by the SARS-CoV-2 virus. It originated in the city of Wuhan, China at the end of 2019 and spread rapidly worldwide, becoming a pandemic as declared by the World Health Organization. Common symptoms include fever, cough, tiredness, and shortness of breath. The disease is spread mainly through close contact with infected people, and preventative measures such as frequent hand washing, mask wearing, and social distancing can be taken. Vaccines have been shown to be effective in preventing severe illness and hospitalizations related to COVID-19. In the midst of this global health crisis, it is crucial to educate yourself and take proactive steps to protect yourself and others.

The SARS-CoV-2 virus is highly contagious and spreads rapidly from person to person through coughing, respiratory secretions, and close contact. Respiratory droplets larger than 5 microns can be transmitted up to 2 meters and come into contact with the lining of the mouth, nose, and eyes if the hands or any part of the body become contaminated with these secretions. (Maguiña Vargas, Gastelo Acosta, & Tequen Bernilla, 2020). That is why, in April 2020, the development of 115 vaccines had been achieved worldwide. We currently have 5 vaccines that are still registering patients to complete phase 3 studies, using techniques that can be classified as the administration of viral proteins to users so that the immune system produces viral antibodies, and this procedure is called vaccine-based in proteins.

Likewise, these techniques are called vaccines based on genetic material, but there are four companies that have completed phase III clinical trials and their efficacy results, such as: Pfizer Bio-N Tech, Moderna, Oxford Astra Zeneca, Gamaleya or Sputnik and Johnson & Johnson (Ramirez, 2020).

This way, Ecuador faced one of the biggest

health crises at the time due to the spread of COVID 19, which is why at the end of 2020 until mid-2021, the priority of the Ecuadorian state was to acquire the necessary doses of vaccines already approved by international organizations. to achieve herd immunity. At the beginning of the current government, the immunization plan “Plan 9-100” began, which consisted of acquiring and administering 9 million vaccines in the first 100 days of government, which were based on the fundamental pillars that are Order, Dignity and Transparency in order to apply the first 18 million Vaccines, which depended in due time on international availability. (Ecuador, Ministry of Public Health, 2021).

It must be noted that the factors that influence non-compliance with COVID-19 immunization can be diverse and are related to the perception, access and availability of vaccines, as well as cultural, social and economic barriers. Survey results indicate that some of these factors include misinformation and myths about vaccination, lack of confidence in the efficacy and safety of vaccines, lack of access to health care, lack of resources, and socioeconomic inequality. Factors related to the comfort and convenience of vaccination have also been found, such as the distance between vaccination centers and home, the time required to receive the vaccine, and the lack of transportation. It is important to understand these factors in order to address the barriers and increase vaccination rates in the population.

Some of these can be included in the Sabanilla campus since it does not have a public health network to comply with the immunization schedule and misinformation about its safety and efficacy, fear or apprehension towards vaccines, and cultural and language barriers. Additionally, it is important to address these factors and work to ensure that the vaccine is accessible and safe for all.

The situation described above motivates the search for strategies that help maximize vaccination rates against COVID 19 and with this allow educating the population on the benefits of vaccination. In addition to proposing an educational strategy as a measure for prevention, it would help the inhabitants of the Community of Sabanilla to know the risks and how to minimize them. Given the problem described, the importance of the topic is raised as the objective of the investigation, which is to determine the risk factors that influence non-compliance with COVID 19 immunization at the Sabanilla Campus.

MATERIALS AND METHODS

This research is documentary, a bibliographical review of the current state of the subject was carried out in journals indexed in the electronic databases Scopus, Latindex, Google academic, Scielo. Articles were selected according to the descriptors and preferably publications from the last 5 years.

RESULTS

COVID 19: GENERAL

Coronaviruses are RNA viruses that cause cold symptoms, especially in immunocompromised patients. Two highly lethal strains have been identified over the years: severe acute respiratory syndrome coronavirus (SARS-CoV) and Middle East respiratory syndrome coronavirus (MERS-CoV). However, in December 2019, in Wuhan, China, a new coronavirus infection was found to be associated with a large number of pneumonia cases, which in a matter of days became an epidemic called 2019-nCoV. (Zhu, et al., 2020).

SARS-CoV-2 is a pleomorphic or enveloped globular virus that displays RNA as its genome and ranges in size from 80

to 120 nm in diameter. Superficially, spike glycoprotein bulges can be seen. Like most betacoronaviruses, it has a dimer of the hemagglutinin esterase protein. The viral envelope is composed of two prominent proteins, the M protein and the E protein. The first is the most abundant and the second has a hydrophobic character. Both proteins are fused with lipid membranes derived from host cells. The genome consists of single-stranded, nonsegmented, positive-sense RNAs approximately 27 to 32 kilobases in length that encode 16 nonstructural proteins. To prevent the collapse of the genome, the RNA binds to another structural protein called a nucleoprotein. (Maguiña Vargas, Gastelo Acosta, & Tequen Bernilla, 2020).

Ecuador faced at the time one of the biggest health crises due to the spread of COVID 19, which is why at the end of 2020 until mid-2021, the priority of the Ecuadorian state was to acquire the necessary doses of vaccines already approved by international organizations, to achieve the herd immunity. At the beginning of the current government, the immunization plan "Plan 9-100" began, which consisted of acquiring and administering 9 million vaccines in the first 100 days of government, which were based on the fundamental pillars that are Order, Dignity and Transparency in order to apply the first 18 million Vaccines, which depended in due time on international availability. The percentage of excess mortality from all causes also decreased. In April 2022, 5.8% was reported. While in the same month of 2021 it was 100%, according to the same report. Vaccination against COVID-19 is one of the reasons that have helped to reduce deaths and serious cases registered by this disease. (Ecuador, Ministry of Health, 2020).

The situation described above motivates the search for strategies that help maximize vaccination rates against COVID 19 and with this allow educating the population

on the benefits of vaccination. In addition to proposing an educational strategy as a measure for prevention that would help the inhabitants of the Community of Sabanilla to know the risks and how to minimize them.

IMMUNIZATIONS AND VACCINES

Vaccines are substances that contain killed or weakened infectious agents that stimulate the body's immune system to produce antibodies and other cells that fight infection. Through immunization, the body becomes resistant to the disease and long-lasting protection against the disease is obtained. According to (Giglio, Bakir, & Gentile, 2018) it refers that a vaccine is an immunological product that consists of a suspension of: Inactive, living, dead microorganisms (including parts of microbial structure) These particles or protein particles are produced when they are inoculated in multicellular organisms, eliciting an immune response that prevents or reduces disease

It is important to emphasize that the dissemination of information about vaccines requires appropriate nursing personnel to adequately sensitize the community about its benefits and side effects. A survey conducted in Ecuador showed that 40% of respondents were reluctant to get vaccinated. This highlights the complexities that Latin American countries must overcome economic, cultural, and technological constraints that limit successful vaccination among the poor. Although this review deals with the topic of vaccines, until now the availability of bulk vaccines has been concentrated mainly in high-income countries.

Ecuador, the country that defeated the nightmare of the pandemic in 100 days and was one of the first countries to receive resources from the World Bank to respond to the health emergency, and later for the vaccination process. Additionally, we have

joined efforts to support the most vulnerable groups through social protection programs and promote economic recovery. (World Bank, 2021).

It is crucial to understand this issue, the findings that identify the number of people at risk of believing in vaccine conspiracy theories, which dispel existing beliefs and advance in intervention strategies against COVID-19. Public health policymakers must neutralize misleading misconceptions through evidence-based education on vaccine safety and efficacy. Government transparency must be emphasized and factual corrections made to misrepresentations circulating on social media. Also, scientific knowledge about COVID-19 needs to be communicated in a more engaging and emotional way, in simple, comprehensible and comprehensible language. (Caycho Rodríguez, and others, 2022)

Finally, the nursing staff must be clear that within the nursing theories of the Nola Pender Health Promotion model, from the theoretical-scientific support of the nursing discipline, this model can be a first approach to contribute to the framework. health promotion in the workplace. (De Arco-Canoles, Puenayan Portilla, & Vaca Morales, 2019)

DISCUSSION

CORONAVIRUS

Genetic analysis has shown that the virus is closely related to SARS-CoV, is grouped within the betacoronavirus genus, and together with two bat-derived SARS-CoV-like strains, is a B-lineage sarbecovirus. which gives rise to different subtypes within the subgenus. Its full evolutionary history is still unknown, but it is believed to have been recently introduced into the human population and its genome is remarkably stable. The existence of one

or more intermediate hosts that may have facilitated the change of species is unknown, as well as the source of infection, although it is very likely that it is of animal origin and phylogenetic studies suggest that a bat is a very likely reservoir of the virus. (Ortega Garcia, 2020).

Currently, the mechanism of transmission from animal to human is completely unknown. During the first investigations carried out in 2019-2020, total ignorance of the form of transmission to humans was decreed. It was pointed out that the virus was acquired through direct contact with infected animals or their secretions, it was speculated, especially due to the origin of the disease, which was the market in Wuhan, China. The human-to-human route of transmission was considered highly contagious and rapidly spread from person to person through coughing, respiratory secretions, and close contact. Flügge droplets or droplets larger than 5 microns can be transmitted up to 2 meters and come into contact with the lining of the mouth, nose and eyes if the hands or any part of the body are contaminated with these secretions. The high risk of infection immediately spread to many countries, as social isolation was not implemented on time, not only in China, but also in Italy and Spain. (Maguiña Vargas, Gastelo Acosta, & Tequen Bernilla, 2020).

Once a person has been infected, the period from the onset of COVID-19 symptoms until patient death varies from six to 41 days.4 Symptoms and their severity will depend on both the age of the patient and the underlying conditions. The most common symptoms are fever, cough and fatigue. Other symptoms include increased sputum, headache, hemoptysis, and diarrhea. In the most severe cases, a computed tomography was performed, and these studies revealed that many patients had pneumonia with abnormal alterations of

RNAemia, acute respiratory distress, cardiac conditions, and within the bronchioles an increase in ground glass zones was observed, which caused the death of the patient.

IMMUNIZATIONS AND VACCINES

In any case, it is made to understand that new vaccines are a category that is associated with production technology and the way it acts on the immune system. Until now it has been developed with: attenuated, inactivated or killed viruses or viral vectors (replicating and non-replicating) called recombinant viruses, nucleic acid (RNA or DNA) based vaccines and viral protein based vaccines. Vaccines require two components; firstly, antigens of the target pathogen that are in the vaccine or can be produced by the vaccine recipient, secondly, an infection signal that places the body of the host who will create an immunological reaction to it. (Gaus D., 2021).

According to studies carried out by epidemiologists, the objective of vaccination is to achieve the so-called “herd immunity”, which confers immunity between 70% and 90% of the population, with the maximum number of attempts to vaccinate people who have been vaccinated against arrival. Both sick and healthy people have a stronger reaction than vaccinations. (Briceño León, 2022).

COVID-19 VACCINE

Vaccination is a process by which a vaccine is administered to an individual with the aim of producing an immune response in the body containing a weakened or inactivated version of a pathogen, allowing the immune system to develop defenses against possible infection in the future. In turn, it is one of the most effective ways to prevent infectious diseases and protect the general population from serious diseases.

For this reason, the COVID-19 vaccine is an important tool to prevent the disease and stop its spread in the population. Currently,

there are several vaccines approved by different regulatory agencies around the world such as: Pfizer, Bio-N Tech, Moderna, Oxford, AstraZeneca, Gamaleya or Sputnik and Johnson & Johnson, and their efficacy and safety have been demonstrated in clinical trials. The vaccine is freely available in many countries and a global vaccination program is being implemented to achieve effective herd immunity. It is recommended that people follow local guidelines and contact their health care provider for more information about the vaccine and when they can receive the vaccine.

SOCIOECONOMIC INEQUALITIES AFFECTING IMMUNIZATION AGAINST COVID-19

Lack of equitable access to vaccines and vaccination-related health care due to differences in economic status, education, and geographic location. These factors may prevent or discourage certain groups of people from receiving the vaccine, increasing the risk of spreading the virus among the most vulnerable communities. Vaccination programs and policies must address these inequities to ensure that all people have fair and equitable access to the vaccine and vaccination-related healthcare.

Within this order of ideas, health personnel seek strategies that help maximize vaccination rates against COVID 19 and with this allow educating the population on the benefits of immunization. In addition to proposing an educational strategy as a measure for prevention, it would help the inhabitants of the Community of Sabanilla to know the risks and how to minimize them.

CULTURAL AND LANGUAGE BARRIERS IN COVID-19 VACCINATION

They are the obstacles that certain groups of people face due to their language or culture when accessing information about the vaccine and vaccination processes. These barriers can make it difficult for people to understand the importance of the vaccine and how to access it, which can lead to reluctance to get vaccinated. It is important to address these barriers to ensure that all people have access to accurate information about the vaccine and the vaccination process and to increase the immunization rate in the population, taking into account the ease and accessibility to receive it, which can include the option of receiving the vaccine in centers close to the home or workplace, as well as flexible vaccination schedules. This can help overcome logistical barriers and increase the vaccination rate in the population.

FACTORS THAT INFLUENCE NON-COMPLIANCE WITH IMMUNIZATION IN COVID 19

Within several studies throughout this pandemic, we obtain that Salomoni, Di Valero et al, mention in their research that reluctance to vaccination is a global factor, and that it is increasingly spreading on a large scale, among which they mention the Vaccine acceptance rates between countries and subpopulations, demonstrating the complicated and uncertain underlying interaction between demographic, geopolitical and cultural aspects, which are often hard to comprehend, understand and differentiate. This research was focused on directing strategies to increase knowledge about the vaccine, confidence and the perception of acceptance. (Salomoni, et al., 2021).

Also one of the major factors that would explain the rejection of the vaccine against

COVID -19, are beliefs in conspiracy theories, which have a negative impact on preventive health behaviors and people's intention to immunize, Lazarević, et al. al, indicate within their research that people tend to romanticize false news and not reason about it, whether for whatever reason, that at least within our country, they are conspiracy theories intuition of popular wisdom, religious beliefs and information without scientific foundation. (Lazarević, et al., 2021).

CONCLUSION

-SARS-CoV-2 is a strain of coronavirus that causes COVID-19, and is a highly infectious and pathogenic disease that emerged in late 2019. The name SARS-CoV-2 was announced by the International Committee on Taxonomy of Viruses (ICTV). The virus continually evolves as genetic mutations occur during replication, leading to the appearance of different variants.

- Most of the changes have little or no impact on the properties of the virus, but some variants, such as Delta, have proven to be more transmissible and severe. There is ongoing research and development of vaccines and treatments for SARS-CoV-2, and measures such as social distancing, mask wearing, and hand hygiene are recommended to prevent the programming of the virus.

-The factors that influence non-compliance with COVID-19 immunization are diverse and complex. These may include cultural and language barriers, socioeconomic inequities, convenience and convenience in vaccination, myths and misinformation surrounding the vaccine, questions about vaccine safety and efficacy, and limited access to vaccines.

- To increase the vaccination rate it is important to address these barriers,

strengthen confidence in the safety and effectiveness of the vaccine through accurate information and increase accessibility to vaccination-related medical care. Addressing these issues is essential to achieve effective herd immunity and protect the population against the virus.

-As the COVID-19 pandemic progresses, immunization through vaccination has become a key part of the public health response to control and prevent the spread of the virus and several highly effective and safe vaccines have been developed

for emergency use by health authorities around the world. Immunization through vaccination is the best way to prevent disease and encouraging people to get vaccinated is crucial to achieve effective herd immunity and protect the population. -Immunization also helps reduce the burden of disease, hospitalization, and mortality related to COVID-19. Therefore, it is important to continue to encourage vaccination and advocate for equitable access to vaccines to protect both individual health and global public health.

REFERENCES

Banco Mundial. (18 de 10 de 2021). *Ecuador, el país que venció la pesadilla de la pandemia en 100 días*. Recuperado el 5 de 05 de 2023, de Banco Mundial: <https://www.bancomundial.org/es/news/feature/2021/10/18/ecuador-the-country-that-vanquished-the-nightmare-pandemic-in-100-days>

Briceño-León, R. (Abril de 2022). *Scielo Public Health*. Obtenido de <https://www.scielosp.org/article/csc/2022.v27n5/1843-1848/>

Caycho Rodríguez , T., Ventura León, J., Valencia , P., Vilca , L., Carbajal León, C., Reyes Bossio, M., . . . Petzold , O. (07 de septiembre de 2022). Análisis en red de las relaciones entre creencias conspirativas hacia la vacuna contra el COVID-19 y síntomas de miedo al COVID-19 en una muestra de países latinoamericanos. *PubMed Central*, 1. doi:<https://doi.org/10.1007%2Fs12144-022-03622-w>

Gaus, D. (Marzo de 2021). COVID-19: vacunas. *University of Wisconsin*, 6(1), 1-5. Recuperado el 22 de mayo de 2023, de COVID-19: vacunas. *Práctica Familiar Rural*. : <https://www.practicafamiliarrural.org/index.php/pfr/article/view/196/244>

Giglio, N. B. (2018). *Rev. Hosp. Niños*. Obtenido de <http://revistapediatria.com.ar/wp-content/uploads/2018/05/268-07-Eficacio-Giglio.pdf>

Lazarević, L. B., Purić, D., Tevanović, P., Lukić, P., Zupan, Z., & Knežević, G. (Febrero de 2021). *ScienceDirect*. Recuperado el 26 de mayo de 2023, de What drives us to be (ir)responsible for our health during the COVID-19 pandemic? The role of personality, thinking styles, and conspiracy mentality: <https://www.sciencedirect.com/science/article/pii/S019188692100146X>

Maguiña Vargas, C., Gastelo Acosta, R., & Tequen Bernilla, A. (Junio de 2020). El nuevo Coronavirus y la pandemia del Covid-19. *Rev Med Hered*(31), 125-131. doi:DOI: <https://doi.org/10.20453/rmh.v31i2.3776>

Murillo, P., Guevara, P., Pino, J., & Vásquez, N. (Mayo de 2021). *MINISTERIO DE SALUD PUBLICA DEL ECUADOR*. Obtenido de MINISTERIO DE SALUD PUBLICA DEL ECUADOR: MINSITERIO DE SALUD PUBLICA DEL ECUADOR. Plan de Vacunacion contra la COVID-19 - Plan 9/100: <https://www.salud.gob.ec/wp-content/uploads/2022/04/Plan-Nacional-de-Vacunacion-plan-9-100.pdf>

Ortega, G. M. (Marzo de 2020). *Scielo España*. Obtenido de Scielo España: <https://scielo.isciii.es/pdf/sm/v76n1/1887-8571-sm-76-01-5.pdf>

Ramirez, J. A. (2020). *Respirar, Universidad de Louisville, Kentucky*. Obtenido de Universidad de Louisville, Kentucky: <https://respirar.alatorax.org/index.php/respirar/article/view/62/2>

Salomoni, M., Di Valero, Z., Gabrielli, E., Montalti, M., Tedesco, D., Guaraldi, F., & Gori, D. (Julio de 2021). *MDPI*. Obtenido de <https://www.mdpi.com/2076-393X/9/8/873>

Vargas, C. M., Acosta, R. G., & Bernilla, A. T. (Junio de 2020). *SCIELO Peru.*. Obtenido de SCIELO Peru.: <http://www.scielo.org.pe/pdf/rmh/v31n2/1729-214X-rmh-31-02-125.pdf>

Zhu, N. Z. (Enero de 2020). *The New England Journal of Medicine*. Obtenido de The New England Journal of Medicine: <https://www.nejm.org/doi/10.1056/NEJMoa2001017>