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Review Article

## Factors Contributing SARS-CoV-2 Vaccine Hesitancy -

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## ABSTRACT

It is thought that the severe acute respiratory syndrome coronavirus-2-caused coronavirus disease-19, which the World Health Organization declared to be a pandemic, started in the Huanan Seafood Wholesale Market in Wuhan, Hubei province, China. Herd immunity can result from vaccination campaigns without necessitating that a sizable section of the community contract the disease. Through 26 different published articles, the author evaluates the success of this review article. The author assessed published publications from databases including Google Scholar, PubMed, the Scopus database, the Cochrane Database, and the CLINMED worldwide library using the Google search engine. The attitude toward vaccine acceptance is influenced by a number of variables, including complacency, convenience, and confidence. Because of complacency and the low perception of the illness danger, immunization was rejected. Confidence is defined as having faith in the safety, efficacy, and competency of the healthcare systems as well as vaccinations. Several factors influence vaccination choices and decide whether a person will take some or all immunizations, postpone accepting them, or refuse them altogether. The general public's dread of the virus has an impact on how well-received the coronavirus disease-19 vaccination is. Perceived danger, doubts about the efficacy and safety of vaccines, medical advice, and vaccination history were all prevalent in China.

**Keywords:** Coronavirus disease-19; Hesitancy; Severe acute respiratory syndrome coronavirus-2; Vaccine

## INTRODUCTION

Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2), the cause of the coronavirus disease-19 (COVID-19), was declared a pandemic by the World Health Organization and is thought to have begun in the Huanan Seafood Wholesale Market in Wuhan, Hubei province, China [1,2]. Coronavirus disease-19 is a health concern that generated considerable psychological and physical health challenges to health care providers internationally [3]. Massive attempts have been undertaken to develop and produce vaccines quickly in order to stop the disease's coronavirus 2 severe acute respiratory syndrome causes from spreading (SARS CoV-2) [4]. Due to the extensive knowledge of vaccine manufacturing amassed over the years, the utilization of existing production techniques, and condensed trial deadlines, a number of vaccines have advanced over a very short amount of time [5]. European Middle East and Asia currently has approved four COVID-19 vaccines for use in the European Union: BioNTech-Pfizer, Moderna (both based on messenger ribonucleic acid platforms), AstraZeneca (non-replicative recombinant chimpanzee adenovirus-based vaccination), and Johnson & Johnson (non-replicating viral vector vaccine) [6]. After a thorough evaluation of the evidence about the caliber, safety, and effectiveness of these vaccines, conditional marketing authorization has been given. Additionally, two contracts with SanofiGlaxo Smith Kline (recombinant vaccine protein-based antigen) and CureVac (mRNA-based vaccine), as well as ongoing discussions with Novavax (protein subunit vaccine) and Valneva (inactivated virus vaccine), have been executed, allowing the purchase of additional vaccines once they have been shown to be safe and effective [7,8]. Clinicians are an important source of information about vaccines, and physician communication can improve adherence to vaccination recommendations [9]. As a result, healthcare workers play an important role in providing advice to patients and communities as well as in setting an example for others to follow. Among the high-risk populations considered to be candidates for early immunization, HCWs are given priority [10]. Many pharmaceutical companies have raced against time to develop a vaccine, so that the pandemic can be brought under control [11]. Herd immunity can result from vaccination campaigns without necessitating that a sizable section of the community contract the disease. Although immunization is widely acknowledged as a successful method for reducing and eradicating the COVID-19 burden, its efficiency depends on the population's desire to get the vaccine. Only when the vaccine is widely accepted are immunization campaigns successful [12]. Vaccine hesitancy can be defined as "delay in acceptance or refusal of vaccination notwithstanding availability of vaccination services," according to the Strategic Advisory Group of Experts on Immunization. It was one of the public health hazards in 2019 and one of the main obstacles to achieving the required

vaccination coverage in most of the nations, according to the World Health Organization (WHO) [13]. For instance, estimates from the World Health Organization (WHO) and the United Nations International Children's Emergency Fund (UNICEF) show that in the Democratic Republic of the Congo (DRC), vaccination rates for poliomyelitis (Pol 3), hepatitis B, and BCG were only 57%, 73%, and 59%, respectively, in 2019 [14]. All of this supports the need for accurate information on COVID-19 vaccines that is supported by science, as well as the necessity to enhance COVID-19 vaccination willingness before funding large vaccination campaigns [15]. The attitude toward vaccine acceptance is influenced by a number of variables, including complacency, convenience, and confidence. Because of complacency and the low perception of the illness danger, immunization was rejected [16]. Confidence is defined as having faith in the safety, efficacy, and competency of the healthcare systems as well as vaccinations. The availability, accessibility, and distribution of vaccinations in a convenient setting are all part of convenience [17].

The burden of COVID-19 is being reduced by vaccination and other methods, but efforts to stop its spread are being hampered by the rising global level of vaccine skepticism [18]. The major causes of this vaccination reluctance may be a result of the widespread disinformation about the COVID-19 vaccine that is currently spreading on social media, in addition to the already high level of general vaccine misinformation. Due to its significant rise, the WHO now views vaccination hesitancy as a serious threat to global health [19]. The COVID-19 vaccine in particular has increased development, which adds to the false perception that the vaccine may not have been properly evaluated for safety and efficacy [20]. Several factors influence vaccination choices and decide whether a person will take some or all immunizations, postpone accepting them, or refuse them altogether. Individual vaccine decision-making is complicated and incorporates cognitive and emotional, cultural, social, spiritual, and political aspects [21]. The general public's dread of the virus has an impact on how well-received the COVID-19 vaccination is. Individual COVID-19 vaccination acceptance factors were also disclosed by a US research, including awareness of the effectiveness of the vaccine, the length of protection it confers, and confidence in political figures and institutions [22]. Perceived danger, doubts about the efficacy and safety of vaccines, medical advice, and vaccination history were all prevalent in China [23]. A research from the last swine flu pandemic revealed that university students' vaccination rates remained incredibly low in the post-pandemic period and that their rejection of the vaccine was mostly motivated by concerns about its efficacy and safety [24]. COVID-19 vaccines generated limited adverse effects and the majority of them were reported among women [25]. Few studies, particularly among medical students, have been conducted among students to examine the COVID-19 vaccination reluctance [26].

## CONCLUSION

The SARS-CoV-2-caused coronavirus illness 2019 (COVID-19), which the World Health Organization declared to be a pandemic, started in the Huanan Seafood Wholesale Market in Wuhan, Hubei province, China. Clinicians are an important source of information about vaccines, and physician communication can improve adherence to vaccination recommendations. As a result, healthcare workers play an important role in providing advice to patients and communities as well as in setting an example for others to follow. The high-risk populations considered to be candidates for early immunization are given priority among HCWs. The attitude toward vaccine acceptance is influenced by a number of variables, including complacency, convenience, and confidence. Because of complacency and the low perception of the illness danger, immunization was rejected. Confidence is defined as having faith in the safety, efficacy, and competency of the healthcare systems as well as vaccinations. The availability, accessibility, and distribution of vaccinations in a convenient setting are all part of convenience.

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