

A Reflection on Unearthing the Relevance of Vaccination amidst Covid-19's Pandemic

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Abstract

The novel coronavirus COVID-19 has led to an unprecedented pandemic that has plagued the modern world for more than one year. In an attempt to control the deadly effects of the COVID-19 virus, several vaccines were developed over the past 6 to 8 months. The issue of whether vulnerable groups such as the elderly and children should be vaccinated has emerged as a recent hot topic following the distribution of COVID-19 vaccines such as Pfizer. The perceptions of the populace regarding vaccination are guided by myths and fallacies popularised over the years. Not many persons are driven by factual information about the COVID-19 vaccine and vaccines in general. This reflective piece attempts to demystify the myths and fallacies surrounding the vaccination of one of the most vulnerable COVID-19 groups. The demystification of the misconceptions and myths of vaccination is done by presenting a fictional scenario that lends to the author's discussion of the novel COVID-19 vaccination situation and subsequent conclusion.

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The novel coronavirus *COVID-19* has led to an unprecedented pandemic that has plagued the world for more than one year. At present, the virus has resulted in worldwide confirmed cases of 110 749 023, confirmed deaths of 2 455 131, and 223 countries, areas, or territories with cases (WHO, 2021). This novel virus has disrupted many global sectors such as tourism, education, agriculture and continues to strain the health resources of many developing and underdeveloped countries affected by the virus. However, in an attempt to control the deadly effects of the *COVID-19* virus, several vaccines were developed over the past 6 to 8 months. Each *COVID-19* vaccine developed has targeted different antigens that are unique features of the *SARS-CoV-2* virus. The use of the antigen in vaccines helps trigger a specific immune response to build the immune memory so that our bodies can fight off *SARS-CoV-2* in the future. At present, several vaccines were tested and approved for distribution to the most vulnerable populace to build their immune systems. The types of vaccines present are *Pfizer, Moderna, Covax, and AstraZeneca's COVID-19 vaccine*. The word type of vaccine is used because they each work differently. To understand the different ways these vaccines work, a presentation of infographics is given in **Appendix I**. Therefore, this paper's primary intent is not to deliberate on the development and targets of the *COVID-19* vaccines; but, is to present a reflection that seeks to give a balanced perspective on the relevance of vaccination at this time. This balance perceptible will be provided by discussing vaccination's pros and cons to arrive at a wise and practical conclusion.

The two groups of people cited as the most vulnerable to the *COVID-19* virus are children and the elderly. In so doing, this reflection will focus on the case of a parent considering vaccination for her children. This case will be used as a means of arriving at a conclusive end. To do this, a fictional scenario will be divulged. The scenario reads: "After months of government-imposed lockdowns, Daisy, a thirty years old mother of three children, overhears on her local news station that all children must be vaccinated by the end of the month. The time had finally arrived. Daisy took her three children in for *COVID-19* vaccine shots. Their ages 2, 4 and 5 respectively. She wondered if her children's body was ready to endure the pain of the vaccines' needle, along with the after-effects of swollen limbs and joints.

Additionally, she wondered about the health side effects that the vaccine may cause. Most importantly, she doubted whether the vaccine would prevent her kids from contracting the virus. Is the discomfort to her kid's bodies now worth it? On entering the doctor's office, the doctor noticed Daisy's worried facial expression and immediately reassured her that everything would be well with her kids. Five years later, while sitting in front of a Clinical Psychologist, Daisy learns that her then two-year-old Beverley has a learning deficiency that the doctor referred to as Autism. The doctor shares with Daisy all the possible causes of Autism. One factor that he listed as a potential cause of Autism was possibly the *COVID-19* vaccine. Daisy is distorted and wished she can go back in time to reverse her decision to her kids vaccinated."

The latter case presented raised the issue of whether parents should agree to the *COVID-19* vaccination for their children and open them up to the potential harm of health defects, or should they not vaccinate and risk

potential harm from the deadly virus now? This fictional scenario provided a snapshot of the present vaccination situation in many countries and raised many pertinent concerns about vaccination's pros and cons. When considering immunization for children, there are possibly two types of parents. The first type of parents can support the vaccination process as they may be aware of the importance of vaccination either through coercion or reading immunization materials. Therefore, the main priority of parents who are mindful of the importance of vaccination will be to ensure that their children or even newborns are adequately vaccinated against the *COVID-19* virus. Their decision to agree to vaccination may be guided by information that several traditional diseases such as smallpox have been eradicated through the invention of vaccines. The second type of parent can adamantly refuse to vaccinate their kids because of misconceptions they have developed over time or because of religious beliefs that prevent them from accepting vaccination for their children. Despite the spectrum of decision-making that can be found among parents, it remains to decide which direction is the better way to adhere.

In so doing, an ethical discourse of the scenario will be presented by providing arguments for and against COVID-19 vaccination. Most importantly, the author would give ideas that would persuade readers that her stance is the most reasonable conclusion. Additionally, the most ethical action that Daisy should perform will be considered. With the advent of research, the validity and safety of vaccination have been called into question. Even though immunization was deemed one of the most desirable health interventions of the twentieth (20th) century, one of the more significant safety concerns of vaccination is that it leads to developing the learning disability, Autism. Although this might be the case, one cannot overlook that worldwide diseases and infections such as smallpox, polio, measles, and diphtheria were eradicated because of the timely vaccination intervention (Diekema, 2005).

Furthermore, over three (3) million infant deaths have been prevented every year because of pediatric immunization. Notably, these vaccine-preventable diseases continue to be reduced in developing countries, from ninety-eight (98) % to now ninety-nine (99) % (Diekema, 2005). The author considers the utilitarian theory to present her stance on the topic of vaccination. The approach stresses the belief "that ethical choices should be based on their consequences and not just on duty" (Morrison, p.11, 2006), as well as decisions, should consider the 'greater good.' In so doing, the author purports that the 'greater good,' which will lead to fewer consequences, is: parents should vaccinate their children because it serves the greater good of all.

Several well-controlled research has provided concrete evidence that a causal link between vaccines and Autism has not been observed (Kimmel, Burns, Wolfe & Zimmerman, 2007). Moreover, vaccines do not weaken children's immune system; instead, vaccines such as Pertussis, which has three thousand (3000) antigens, would eliminate impurities that will predispose a child to contagious illnesses (Kimmel et al., 2007). In other words, vaccines are used to strengthen children's immune system against many diseases such as polio and invasive *Haemophilus influenza*. Therefore, the decision to partake in the COVID-19 vaccination will help eradicate the virus, as was observed with many other deadly diseases. Doing this will first serve the greater good of the country and, more so, the world.

The concept of herd immunity is another reasoned argument that provides convincing confirmation of why parents should vaccinate their children. Herd immunity can be described as when most children in a particular population are protected against transmissible diseases because many children in that said population would have been immunized against the disease (Diekema, 2005). Therefore, the benefits of vaccination extend beyond infants and to those who were not vaccinated (Diekema, 2005). Parents who refuse to vaccinate their children should know that to a large extent, it is vaccinated children who will be protecting their children from contracting COVID-19. Therefore, parents need to understand that the best they can do for their kids is to have them vaccinated and done away with inconclusive information that vaccines, specifically MMR vaccines, lead to Autism. Parents that fail to vaccinate their child/ren will cause a massive increase in public health atrocities such as epidemics and pandemic of the COVID-19 virus.

Additionally, this can prompt the breakdown in herd immunity, resulting in hospitalization and the loss of many innocent children's lives (Chi, 2014). Consequently, before vaccine intervention, vaccine-preventable diseases accounted for twenty (20) percent (%) of infant deaths in America. However, as it stands today, almost all deaths connected to vaccine-preventable diseases have been eradicated (Hedden, Jessop & Field, 2014). On the contrary, opponents vivaciously posited that children's compulsory vaccination only limits the autonomy parents have in making proper decisions for their children's well fair (Salmon, Teret, MacIntyre, Salibury, Burgess & Halsey, 2006). The application of John Rawl's theory to this opposing view illustrates that parents who disapprove of vaccination are only serving their best interest by risking their children's health, all for the sake of autonomy. Additionally, opponents believe that it is healthier for children's immunity to be induced naturally; rather than be given a vaccine (Kimmel et al., 2014). Furthermore, they contend that vaccines would cause children to suffer from allergic reactions from different constituents found in the vaccines (www.bbc.co.uk).

However, these opponents fail to realize is that these suppositions are unjustified and nonsensical. Firstly, vaccination of children would guarantee parents greater equality in society. Real equality is instituted in

the ideology that each parent will share the benefits and threats of vaccination (Salmon et al., 2006). Therefore, when parents fail to vaccinate their children, their full coverage of autonomy is masqueraded with frivolous claims such as vaccination leads to Autism, which bears no soundness. Secondly, opponents suggest that parents should expose their children to induced immunity should be warned that this venture is risky and can lead to children's premature death. Thirdly, opponents should be cognizant that allergic reactions from vaccines are most times isolated experiences rectified by a physician before any further impairment can be caused.

In conclusion, should parents vaccinate their children against COVID-19 and risk potential harm like Autism, or should they not vaccinate and risk exposing their kids to the COVID-19 virus? The author has provided insurmountable evidence that supports the claim that parents should vaccinate their children. The first unquestionable evidence is that the link that has been shown between vaccines and the learning disability of Autism is inconclusive since a causal link between the two variables was not identified. Furthermore, vaccination provides unlimited benefits such as herd immunity and public health safety. The author contends that parents who do not vaccinate their child/ren and risk potential harm from the deadly virus may only have bragging rights of autonomy, which is immature and irrational. Therefore, as a caregiver and mother, Daisy should do what is just and right for her children and the sake of all other children. Daisy is faced with two possible courses of action: support vaccination which presents the idea of beneficence, or refuse vaccination which offers the ideal of maleficence. The most ethical choice of the two will be to support immunization and risk inconclusive potential harm like Autism. Where should your obligation be? To yourself, or to the greater good, which is the health of your child. Choose wisely.

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Appendix 1

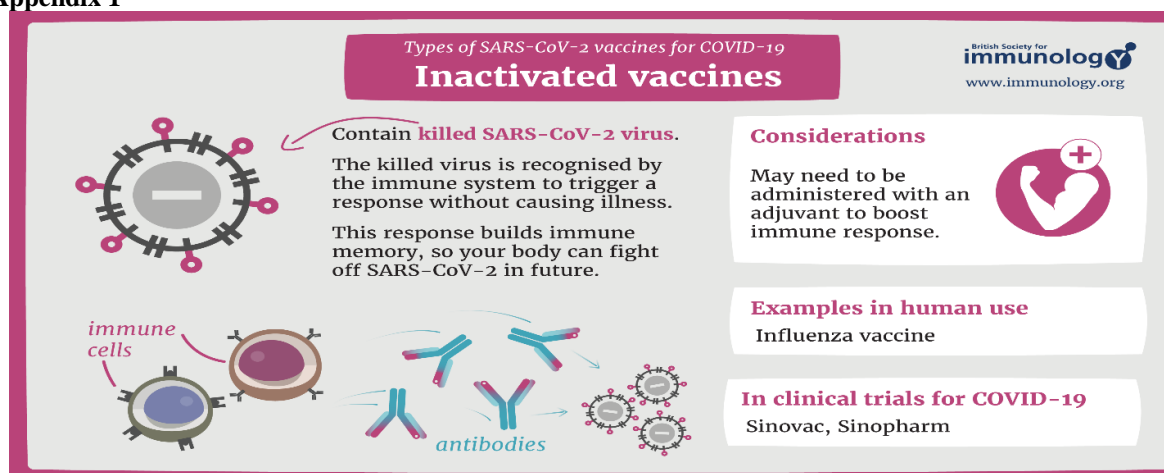


Figure.1. Inactivated vaccines for COVID-19

This type of vaccine contains the killed SARS-CoV-2 virus, which the immune system recognizes to trigger a response without causing COVID-19 illness. This response builds immune memory, so your body can fight off SARS-CoV-2 in the future.

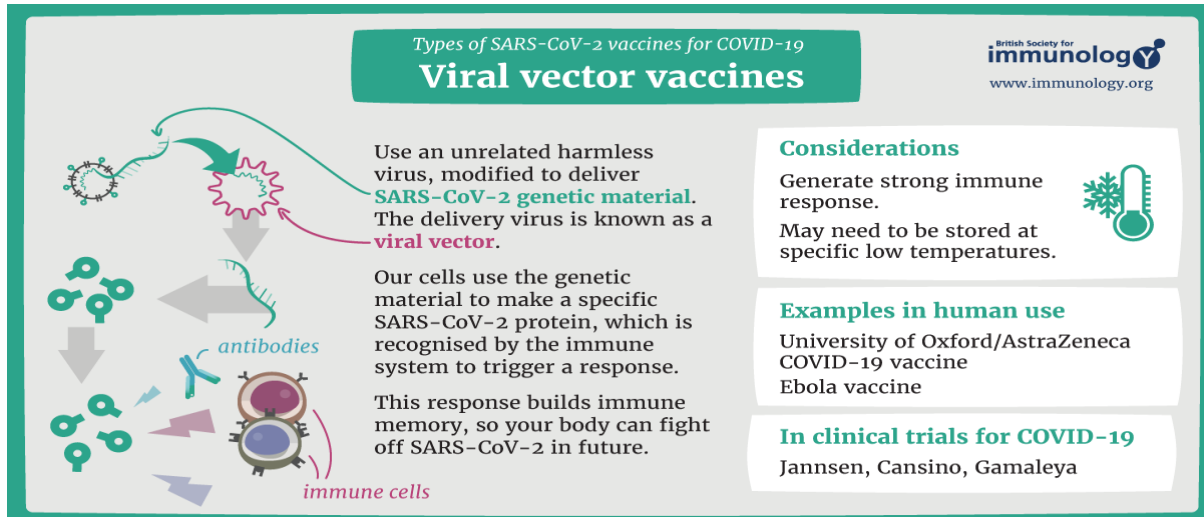


Figure.2. Viral vector vaccines for COVID-19

The University of Oxford/AstraZeneca vaccine uses this technology to protect against COVID-19. This type of vaccine uses an unrelated harmless virus (the viral vector) to deliver SARS-CoV-2 genetic material. When administered, our cells use the genetic material to produce a specific viral protein, which our immune system recognizes and triggers a response. This response builds immune memory, so your body can fight off the virus in the future.

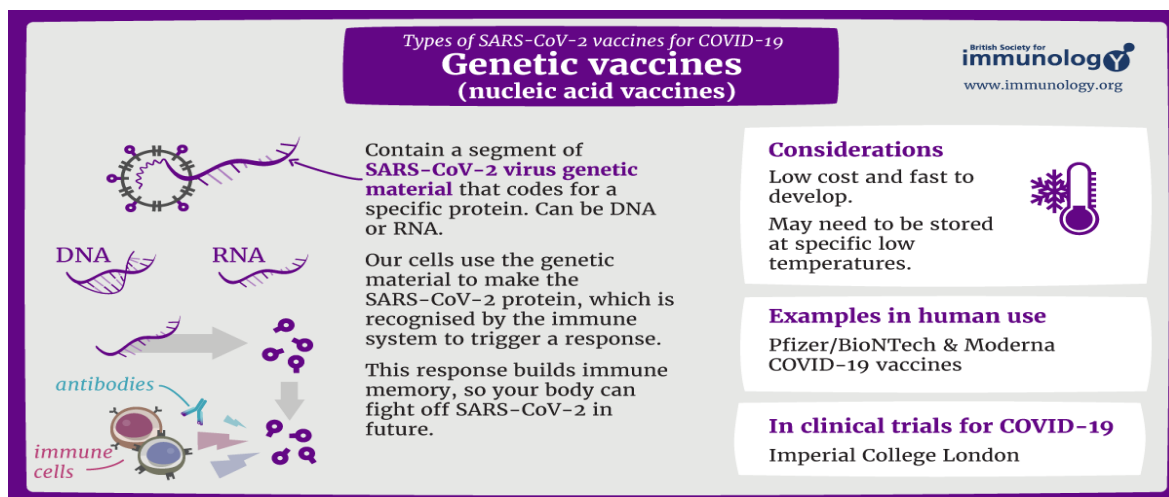


Figure.3. Genetic vaccines for COVID-19

The Moderna and Pfizer/BioNTech COVID-19 vaccines use this type of technology to train the immune system. The vaccines contain a segment of the genetic material of the SARS-CoV-2 virus, which causes COVID-19. The genetic material, RNA in the case of Moderna and Pfizer/BioNTech vaccine, codes for a specific viral protein. When administered, your cells use the vaccines' genetic material to make the protein recognized by your immune system and trigger a particular response. This response builds immune memory, so your body can fight off SARS-CoV-2 in the future.

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