

Psychological hesitance and myths related to COVID-19 vaccine is a hindrance in vaccination process in Pakistan

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Abstract:

The entire world is dealing with this pandemic of COVID-19 since December 2019. And several variants of this SARS-COV2 virus have occurred and they have more impact on the increase in the mortality rate and it has now increased to more than 5 percent up till now which is quite an alarming state. But despite this, every day increasing mortality rate the vaccine which is now available for use is not considered to be effective by the general population due to their self-created myths and this leads them to be reluctant to the vaccine. And that's why the vaccination process is still far slow as we know that the number of cases is getting increased day by day the immunization by the vaccine is much important to cope up with this challenging pandemic.

There is a need to avoid the psychological considerations for the vaccination because vaccine provision is important to provide the maximum number of individuals with the vaccine so the more complex states of this variant form of viral infection could be deal with in a more sophisticated manner.

Keywords: COVID-19, Myth, provision, reluctant, immunization

Introduction:

The world is going through a major crisis of pandemic conditions since 2019 and this has badly affected every country with the economic as well as a health crisis. As the mortality rate is increasing day by day due to the variant forms of the SARS-COV2 virus and there is no provision of appropriate treatment available. This is leading to the increase in the crisis related to COVID-19 disease the mortality rate as well as complications related to the disease in patients is also increasing and all this is making the condition more badly (Murphy et al 2021). This is also an increasing burden on the health providers and the economy of the country as more medications as well as ventilators and detection kits are being used. The mortality rate has also exceeded more than 5 percent and this is making the people more conscious towards their health. Since there is no appropriate treatment available so the symptomatic treatment is increasing the more economic crisis. The entire world was doing plenty of efforts to find the treatment or the vaccine to cope up with this virus. Now several companies from different countries have launched their vaccine and these are available for public use but some factors are creating hindrances towards the vaccination process(Kwok et al 2021). This includes several self-created and self-modified myths and false news related to the vaccine and the psychological barriers that make the people hesitant to the vaccine. The immunization by the vaccine is very important at this point to provide the maximum number of individuals with the immunization and to decrease the mortality rate that is increasing day by day. The vaccine is important to produce herd immunity as well to compete with this pandemic in a better way.

Variants of SARS-COV2:

Many variants have occurred since the first outbreak of this SARS-COV2 and the variants in the virus making the condition more worse as there is already no treatment available for this COVID19 disease and the health care providers are now more focused to make the condition less bad by doing interventions. Every wave of the variant form of this virus is affecting people more severely and that's the reason behind the increased mortality rate. The mutations are occurring in the virus due to the cause of widespread of the virus in the population. The mutations occurring in the structure as that in the genetic material of the virus making it more crucial for the people(Dror et al 2020). That's why it is the need of the hour to prevent the more widespread of the virus as the more increasing spread of virus make it change its forms and the variants of the

virus are infecting more severely to the people. Increasing complications as well as the death rate of this pandemic disease.

Treatment options of COVID-19:

There is no appropriate treatment available for this disease but only the symptomatic type of treatment is given to the patient to prevent the severity of the disease. The basic symptomatic treatment given to the patients is included as antibiotics like azithromycin, paracetamol as an antipyretic, hydroxychloroquine, chloroquine, remdesivir, dexamethasone, tocilizumab, oxygen therapy, etc are given to the patients but if the patient presents in a more severe condition then the only left option is the ventilator. Vaccination to the disease is also very important now the vaccine is available which is used to protect those who do not have the disease and prophylaxis is important to protect them from the infectious disease (Razai et al 2021). The vaccine available is also important to improve herd immunity and also to decrease the number of patients present daily to the hospitals, clinics, etc. this immunization will also do help in a way to reduce the economic as well as the health crisis that was caused by this infectious disease.

Vaccine:

Since the detection of the cases of the infectious disease COVID19, several companies were busy in the manufacturing of the vaccine worldwide. And there is a total of nine vaccines that were approved for human use and only two of these are using globally. These two include as made by Pfizer (BNT162b2) and by Moderna (mRNA1273) and those based on as that the nanoparticles of lipid used for drug delivery consists of mRNA based encoding of the perfusion that is stabilized by the proteins of the virus as spike proteins of the SARS-COV2 virus. These vaccines are considered to be shown more than 90 percent efficacy in the prevention of the covid19 disease when it was under phase 3 clinical trials. The other of more concern is Astra Zeneca (oxford). The other vaccines available after their clinical trials and are also effective up to the extent. The vaccines produce their effect by either acting as a prophylactic agent to protect those that do not have the disease or acting as a treatment in other cases too to cure the patients affected by the disease (Sallam and M 2021). The main types of vaccine areas may be protein

subunit, whole virus, nucleic acid, and the virus as a vector. Some of them are doing their activity by inserting the viral antigen to produce the immunity against that antigen by the production of antibodies and the others may act to utilize the body's cells to produce the viral antigen.

Numerous conformist vaccines make use of the entire viruses to activate an immune retort. Of these, all 2 leading slant areas live the attenuated type of vaccines that practices a debilitating form of the virus that is stagnant to duplicate deprived of instigating ailment. Inactivated types of vaccines make use of the viruses whose genetic factual has been shattered thus they could not be able to reproduce, however, they are still able to elicit an immune rejoinder. Both these forms utilize the engrained skill as well as alleyways on behalf of regulatory endorsement, however, the live attenuated type of vaccines may hazard triggering ailment in the people those having feeble immunity as well as frequently necessitate the vigilant cold stowage (Khubchandani et al), building their utilization supplementary puzzling in developing countries. Inactivated vaccines can also be assumed to the people having conceded immune systems nevertheless it is also required as the cold stowing.

The protein Subunit type of vaccine makes use of the fragments of the disease-causing organisms - frequently wreckages of the protein subunit to activate an immune rejoinder. It will curtail the jeopardy of the side effects, however it correspondingly revenues the immune retort might be frailer. So these types of vaccines frequently necessitate the adjuvants, to aid enhancement the immune retort.

Nucleic acid types of vaccines are those that make use of the genetic substantial that is RNA or the DNA to deliver cells through the commands to produce the antigens. For instance, in this new emergent disease COVID-19 includes the use of the spike proteins of the SARS-COV2 virus. As soon as the genetic material acquires hooked on to the human body cells, it practices the protein factories of the cells to produce those types of antigen that will elicit the immune retort. The benefits of this type of vaccine are that these are easy to synthesize, as well as inexpensive. Subsequently, an antigen is created intimate in human own cells in addition to in larger extents, the immune rejoinder must be robust enough to produce its maximum effect(Vergara et al 2021). A shortcoming, conversely, is that there is no genetic material-based vaccine is offered for human use, which possibly will be the reason for supplementary

steeply through supervisory endorsement. Furthermore, the RNA vaccines prerequisite to be reserved at cold temperatures, like those of minus seventy degrees or lesser.

The other type of vaccines as those the viral vector form of vaccines correspondingly drudgery by providing the cells genetic commands to yield the antigens. However, they diverge from that of the nucleic acid type of vaccines in a manner that they make use of the innocuous form of virus, diverse as of those that the vaccine is steering, to convey these commands hooked on to the cells of the body. As those with the nucleic acid type of vaccines, the individual cellular mechanism is commandeered to make the antigens as of those directives, in direction to prompt an immune rejoinder. The Virus type of vector vaccines can impersonate the normal viral contamination as well as it should consequently activate the resilient immune retort.

Nevertheless, meanwhile, there is a fortuitous that voluminous people might have previously been unprotected to viruses existence utilize the virus as a vector, various may be protected to it, creating the vaccine fewer efficiently.

Hindrances in vaccination:

Vaccination is very important for any infectious disease to control its spread and to control the effects of the pandemic produces globally. The world is under this condition of a pandemic since 2019 and that due to the lack of proper treatment availability thousands of people lost their lives due to this pandemic state and the whole world was doing numerous researches to find the vaccine or the proper treatment of this disease. Fortunately, a vaccine has been produced by many countries and companies to control the pandemic. But now the fact is that several hindrances in the vaccination process are making this pandemic state move towards more serious conditions by the mutations and variation in the virus the causative agent of this infection. It is the need of the hour to vaccinate the maximum number of individuals to increase the incidence of herd immunity by increasing the vaccination process and this would ultimately increase the vaccination efficacy(Rutten et al 2020). But various factors are affecting this process in developing countries like Pakistan and some of the factors are the presence of psychological hindrance and false considerations relevant to the vaccination process as well as the literacy rate is low and the illiterate people do not consider it as an important for their lives. And also some profound myths related to the vaccination process are affecting it badly. Some of these factors areas,

Psychological hesitance:

Well, during the recent pandemic situation that hits the nations around the globe and affected the world economy, all the nations scientists are concerned with the generation of its treatment that is the anti-viral vaccine for the current covid 19 in which we have succeeded to some extent. However, we as being humans are not so rational when it comes to making decisions where our emotions and our cognitive biases act along with our human nature and put an impact on our decision-making ability and hence result in irrational decisions.

For instance, in Samoa, there were zero cases of measles in August 2019 but within 2 months there were more than 5000 cases reported that made up to 2 percent of the total population from which more than 80 people died, unfortunately, the majority were children(Jacobson, et al 2020). The main reason for the spread was not the unavailability of the vaccine but the mental virus or mental fear that was implanted in the population that diverted the people to take the alternatives of the vaccine that was vitamins or papaya leaves that diverted the people mindset to go for the first-line treatment that is the shot of vaccine which in result cause the spread of the viral disease Same in case of novel corona vaccine the fear reluctance and hesitance to acceptance of the new generated covid vaccine is now considered as one of the main causes of spread after the non-following of SOP's and non-maintaining social distance as the people are reluctant to take vaccination but they are taking alternatives like senna leaves tea that causes excessive dehydration in covid patient causing more complications to the patient recovery

Common myths related to vaccination:

The earth is a global village and in the recent era, the excess to the net and social media is very effortless which is a blessing but also a disguise in the recent time as the misuse of social media platforms cause the rise of rumors and myths about the recently developed covid 19 vaccination which ultimately cause the physiological hindrance in the population.

For instance, there was a rumor about the COVID-19 vaccine that it was containing some microchips that are being used to track the people which fake propaganda including fake images, videos, and even the fake news telecasting on some T.V channels(Dugani et al 2021) having no truth in it as the vaccines are made according to the WHO and FDA approved procedures as like the other vaccines and no safety protocols are being missed. other rumor on social media claimed that the covid vaccine attacks the protein in the placenta that causes infertility in women but the reality check enables us to see the truth that tells us that there is some amino acids sequence being shared by spike proteins of coronavirus as well as the placental proteins that are present in

females but the reality is that according to the researchers and scientists the sequence of amino acids are too short to trigger an immune response that ultimately leads to infertility in females the ultimate rumor around the nation is people don't need to wear a mask after taking vaccination shot which is not true as according to the scientists there are different strains of corona are being reported around the globe which is even more powerful than the previous first strain or second strain of coronavirus so the truth is people need to wear a mask and maintain the social distancing and follow the protocols according to world health organization until the majority of the population is being vaccinated and immune so the people that are fully vaccinated when meet each other do not need to wear masks. All these factors are creating hindrances in the vaccination process in the countries like Pakistan. And the mutations and variations in the virus are more serious and the need of the hour is to manage this state by making some special measures to vaccinate more and more people to spread herd immunity and to protect the people from its debilitating effects.

Strategies to overcome hindrances:

The vaccination process for a maximum of the people is the need of the hour and these kinds of obstacles are making the condition worse so it is the requirement to make some strategies to avoid such effects on society. Because vaccination is up to some extent is the only thing that can prevent further spread of the disease and also helpful in decreasing the mortality rate. So the strategies require areas that the healthcare providers must guide the people and convince them to vaccinate them and also give them the best of their knowledge to guide them that it is important for their protection and also to avoid further spread of the disease and also by making some kind of campaigns that consists of the healthcare members and the students and to guide them to make it convenient for the healthcare providers to vaccinate them (Wang et al 2021). It is the time of digital media so some kind of digital campaigns is also important to make the people aware of the effectiveness of the vaccine and to educate them about its benefits. And also the commercials must be broadcast on television to increase awareness among the people and also other sources like the brochure to be print and then distribute among the people. And digital webinars and meetings are also important to spread a positive kind of awareness among the people. And the health care providers must tell the people before the vaccination procedure to guide them that it is just for their safety and there is no factor or agent present in it which will negatively affect them. And there will be no major side effects like infertility or chances of another disease like

AIDS etc. are present in this vaccine. All these efforts are required to increase the rate of vaccination to avoid the hazards that this pandemic is putting on the entire world and affecting every aspect of the economy and health crisis (Madison et al 2021). By making all these strategies the vaccination procedure must be increased and the debilitating effects of this pandemic will be decreased and the people will get benefit from it in the best way.

Conclusion:

The pandemic state of COVID-19 disease is quite difficult to treat so the vaccination process must proceed at a very fast rate to increase the number of people who are vaccinated to overcome the crisis of this pandemic and to boost up the immunity of the herd immunity by vaccinating maximum of the people. It is also necessary that vaccine must be produced at a fast rate to increase the process of vaccination and it must be made available to all the countries those who can afford it or not because the pandemic is somehow a condition of global crisis and we can get rid of it by the proper coordination and by making proper strategies. And it is also necessary to overcome all those factors that are creating hindrances in the vaccination process.

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Conflict of interest:

There is no conflict of interest.

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