

Dealing Anti-Vaxxers; Legal Framework to Deal the COVID-19 Immunisation Hesitancy in Pakistan

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Abstract

The COVID-19 vaccine has been administered to the majority of population through governmental initiatives. Keeping in view the polio vaccine hesitancy and challenges, the government of Pakistan needs to deal with the COVID-19 immunisation hesitancy. There are numerous reasons for uncertainty about the vaccine that included religious misinterpretations, fake-news, socio-cultural conservative ideas, and lack of understanding about the progress within the therapeutic sciences. Owing to the challenges of vaccinating the entire population effectively, the authorities of Punjab, Pakistan have adopted a new law to conduct the immunisation campaigns in Pakistan. This paper will analyse the efficacy of the new legal framework to deal with the expected issue of vaccine hesitancy in Punjab, Pakistan.

Keywords: Vaccine hesitancy, Pakistan, COVID-19, Legal framework

Introduction

COVID-19, a term unknown by a majority at the beginning of the year 2020, has become a part of daily life discussion. The COVID-19 pandemic has shaken up the world and is continuing to do so at a rapid pace. The world, which had turned into a global village due to the advancements in transportation and communication with the help of ever-evolving technology, is now facing a huge challenge in controlling this virus. With the constant day and night efforts of medical professionals, researchers, and scientists, we finally have a remedy, in the form of vaccines, to fight back and stop the virus. However, this is a tough battle as vaccines bring with them their own set of challenges. Among many such challenges, the biggest one is to challenge the ideology of the anti-vaxxers and gain their trust in favour of this solution and help the world get out of the biggest challenge it has faced globally.

COVID-19 (where 'CO' = corona, 'VI' = virus and 'D' = disease) is an infectious disease that has come from a new strain of coronavirus. Initially, it was known as "2019 novel coronavirus" or "2019-nCoV" referring to the year its first case was identified and the family of virus it comes from. Coronaviruses are the type of viruses that can transmit among animals and humans. The Middle East respiratory syndrome (MERS-CoV) and severe acute respiratory syndrome (SARS-CoV) is the previous examples of coronavirus outbreak (Zhou et al., 2020). However, unlike the previous examples, COVID-19 has spread at an exponential rate. The effects of this virus have varied from country to country and region to region based on multiple demographic and socio-economic factors. One of the reasons for this can be the variation in how it affects different age groups and their respective immunity levels. Generally, this virus affects the population of younger age group mildly, with mild symptoms of common flu or fever. However, the older age group and people with pre-existing medical conditions have been reported to be more vulnerable and more prone to develop respiratory issues (Tang et al., 2020).

Due to its widespread effects and the level of severity it can reach resulting in deaths, on 30th January 2020, the World Health Organization (WHO), the international public health agency of the United Nations, declared COVID-19 as a Public Health Emergency of International Concern (PHEIC). It was the sixth time WHO had declared a disease as (PHEIC) (Bilgin et al., 2020). The origin of the disease is still a matter of debate; however, it is most probably believed to have started from Wuhan City, in the Province of Hubei, China in December 2019. The visitors from that city then carried it to other places with themselves, triggering a chain response that turned the initial endemic into a worldwide pandemic (Zu et al., 2020) (Millán-Oñate et al., 2020). At that time, it was named SAR-

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CoV-2 (Severe Acute Respiratory Syndrome Coronavirus 2) since it caused respiratory problems and pneumonia. Later, it was officially declared as the COVID-19 pandemic (She et al., 2020).

Even though China, the first country to get hit by the disease, neighbours Pakistan, Pakistan did not receive any cases for a little more than two months. On 26th February 2020, the Sindh Government announced the first case of COVID-19 identified in Karachi, Pakistan. The Federal Ministry of Health soon followed them to announce the second case identified in Federal Capital Islamabad, on the same day (Waris et al., 2020). In the next 15 days, Pakistan saw the cases spread to different parts of the country taking the total number to 20 cases in total. One thing was common among all the initial cases that the affected people had travel history of the United Kingdom, Iran, and Syria.

On 12 February 2020, the Ministry of National Health Services presented the National Action Plan for Preparedness & Response to Corona Virus Disease in Pakistan. With guidance from this plan government aimed to take measures that will control the spread of the disease and prepare the healthcare and other governing systems of the country to provide the public with adequate health care facilities and resources, along with issuing guidelines to stay safe from this disease.

After several months of fighting this battle, the world has finally reached the next step of the fight with the arrival of COVID-19 vaccines. This next step now brings new challenges. Delivering the vaccines to every corner of the world and in large quantities to help relieve the people suffering from the effects of the virus is no easy task. However, keeping aside the logistics, economic, and political challenges, vaccines also bring with them an ideological challenge known as vaccine hesitancy.

Vaccine hesitancy can be defined as mistrusting the effectiveness and safety of this preventive mode of treatment and refusing or delaying in getting vaccinated. World Health Organization considers this phenomenon among the 10 most concerning threats to public health worldwide. In a study conducted in France in May of 2020, almost 25% of the people who took part in 5 surveys (sample = 1000 adults) stated safety concerns over a vaccine developed in an emergency and declared that they will refuse to get themselves vaccinated when the vaccine arrives. Similarly, a recent study in England revealed that among half of the population, a large number believes in the conspiracy theories revolving around vaccines and do not trust any vaccine that might come out in the future for COVID-19 (Verger & Dube, 2020).

Despite the whole world seeing the high risks, this disease poses to every country and individual, such behaviours indicate that the factors controlling the ideology of vaccine hesitancy are quite complex and require thorough research and attention from the healthcare systems and the governments. These ideas often stem from mistrust in science and technology and lack of correct information. Such ideas are often reinforced by misleading social, religious, and political groups who distort the original ideas and present them in a way to form conspiracy theories against these vaccines for their gain. There is no straightforward method to deal with this challenge, as a determinant of vaccine hesitancy varies from time to time and region to region. Each country and society need to step up to this task and identify which factors, concerning their society, are causing this mistrust and formulate methods to educate and convince such people about the effectiveness and importance of vaccines. This can be the starting point that can lead to gaining the attention of more hard-core antivaxxers (Verger & Dube, 2020).

The legislative assembly of Punjab has introduced the Punjab Infectious Diseases (Prevention & Control) Act 2020. The study investigates the anticipated COVID-19 vaccine hesitancy vis-à-vis the legal framework available in Punjab, Pakistan. After analysing the available legal framework, the paper will suggest ways to improve response against the vaccine hesitancy.

COVID-19 and medical misinformation in Pakistan

COVID-19 has emerged as a global pandemic which has left no place unaffected. Everyday thousands are infected, and hundreds lose the battle against this virus in every region. The only logical way to deal with this challenge is that every individual, community, and country plays its part responsibly and takes measures based on correct and scientifically proven information. However, when we look at the way the public responds we see a bigger challenge that stems from misinformation. This

misinformation is spread sometimes intentionally for personal gains and sometimes due to ignorance and illiteracy.

Pakistan being a developing country and having a low literacy rate has fallen into this trap as well. Unfortunately, Pakistan has been in this trap before the Coronavirus hit the World. Pakistan one of the two countries which are still battling the polio virus and the main reason is the prevalence of misinformation regarding polio virus and the vaccination campaigns (Siddiqui, 2019). Pakistan lacks a well-established systematic approach and institutions based on advanced technology which is crucial to track and counter the sources which spread misinformation. With the anticipated immunisation campaign for COVID-19 disease, Pakistan needs to work to ensure the safety and well-being of its people and educate them on the severity of the crisis (Naeem & Bhatti, 2020).

The two main sources of information that shape the ideas of the people of Pakistan are the internet and religious scholars. It was observed that internet users in Pakistan have increased by 17% from 2019 to 2020 (Kemp, 2020). Also, the majority of population in Pakistan is influenced by the religious scholars. Although these two sources are not wrong within themselves but identifying the right and wrong groups within them is crucial to equip ourselves with the correct information. Due to lack of literacy, a large number of populations fall prey to sources that feed them with the wrong information.

In Pakistan, due to widespread poverty and expensive healthcare systems, the population relies on social and digital media as their source of health-related information (Ittefaq & Iqbal, 2018). The fear and panic have increased the frequency and volume of conspiracy theories and fake news spreading across the digital platforms, which is the easiest and cheapest mode of gaining information (Ejaz & Ittefaq, 2020). According to Kemp, WhatsApp is the most used application in Pakistan (Kemp, 2020). With the ability to forward messages to many people with just a few clicks, this app has become a hub for the spread of misleading information and the origin of unscientific treatments. These treatments, which public health officers warn against, are not only ineffective but also dangerous at times. Unfortunately, sometimes these treatments are falsely shown as official notification from the Ministry of Health and succeed in misleading the masses. Even though WhatsApp aimed to mitigate this problem by limiting the number of forwarded messages, the research in this domain does not show any real evidence on the effectiveness of such restrictions (de Freitas Melo et al., 2019).

Even though the above discussion focuses on the factors leading to misinformation in Pakistan, every country is dealing with this issue in one way or another. Hence, the World Health Organization (WHO) has declared the COVID-19 not only a global pandemic but also an “infodemic”. This term is not a new one and means having an overwhelming amount of information which makes the problem more difficult to solve (WHO, 2020). The COVID-19 has forced the scholars and researchers from social, digital and health sciences to focus on this term and find ways to regulate it to curb the dangers it poses to the public (see (Ejaz & Ittefaq, 2020); (Eysenbach, 2020); (Pennycook et al., 2020); (Zarocostas, 2020), for more information).

It is important to mention that this study does not aim to discourage the public from seeking information, rather the objective is to spread awareness regarding the potential traps that lie in this huge nest of knowledge. Each individual needs to equip himself with adequate knowledge that will help them to stay safe from COVID-19 and other hazards that might be out there. It is advised to always check the credibility of the source and rely mostly on official and credible sources of known institutes and individuals. Only rely on scientifically proven treatments and preventive measures.

Agence France-Presse (AFP) an international news agency has done some remarkable work in identifying and debunking 696 fake messages regarding the treatment of COVID-19. Some of these treatments base their grounds on using natural herbs and remedies and others use religious practices as a tool to mislead people who have a strong religious background but little knowledge of health sciences (Agence-France-Presse, 2020). While some of the habits are good in general and in moderation but relying on them as a tool against COVID-19 is dangerous.

The legislative framework to deal with vaccine hesitancy

For any governing body, formulating an effective legal framework is essential while dealing with any issue that is of collective concern. Laws help determine the boundaries that segregate the good

and the bad and ensures the right response towards an issue and penalises anyone who responds otherwise. Through these laws, people with varying backgrounds and different points of view are brought to a common ground. This generates a unified response that can help resolve problems in a structured and peaceful manner.

The COVID-19 is not only a health crisis but also a big challenge to the social, political, and economic lifestyle of every region. The impact of this pandemic is very widespread and requires a systematic approach to overcome it. To ensure that the public responds in the right way to minimize its effect, formulating a legal framework for its control and prevention is critical. This study will discuss how the Government of Pakistan is dealing with this challenge. Among all the provinces of Pakistan, Punjab is the most densely populated province where almost half of the population of the country resides. The high density of the population brings a higher risk of the spread of the infection. This risk challenged the healthcare, administrative and economic systems of Punjab. Initially, the Punjab government took actions based on the regulations stated in The Punjab Epidemic Disease Act 1958. However, this law was outdated and proved to be ineffective in the situation caused by COVID-19. Punjab Government realised the ineffective nature of the Law and decided to repeal it and promulgate The Punjab Infectious Diseases (Prevention and Control) Ordinance 2020. This ordinance was later adopted by the provincial Assembly of Punjab on 11th August 2020 in the form of the Punjab Infectious Diseases (Prevention and Control) Act 2020 (PIDA, 2020).

Exploring the Punjab Infectious Diseases (Prevention and Control) Act 2020

The Punjab Government adopted the Punjab Infectious Diseases (Prevention and Control) Ordinance 2020. Although this law did not specifically mention COVID-19 in its text and targeted prevention and control of all infectious diseases, the law aimed to limit the spread and impact of COVID-19 in the Punjab province.

The law begins with defining the roles and responsibilities of important designations that are crucial to the task at hand. These definitions serve as a guideline to all personnel involved regarding what is expected of them and what they are accountable for. Following are some of the most important definitions:

- **Potentially Infectious Person:** an individual who is suspected to be contaminated or infected with an infectious disease; or poses a threat to spread, contaminate, and infect others with the infectious disease; or lives or has recently travelled from an area where the infection is spread in the past 14 days or any other period as determined by the Secretary
- ⁴. The 14 days' time-period is specifically determined to target COVID-19.
- **Director-General Health:** The Director General Health Services for Punjab⁵
- **Secretary:** Secretary to the Government, Primary and Secondary Healthcare Department⁶
- **Notified Medical Officer:** A medical officer by the Secretary to perform several duties and impose laws concerning this Act⁷

This law gives the Secretary the authority to declare either entire or any part of Punjab a serious threat to public health from the infection prevailing. However, the declaration or repeal of such a threat needs to be approved by the Chief Minister⁸. Moreover, the law makes it compulsory for the Secretary to bring the Director-General Health and at least two distinguished epidemiologists appointed by the Chief Minister in consultation before making such a decision.

In case the spread of the disease leads to overburdening of government healthcare facilities, the Secretary is empowered to impose duties on all registered medical practitioners from the province of Punjab, not currently employed by the government, to treat patients infected by the disease⁹. Moreover, the Secretary also has the power to declare any healthcare facility, such as hospitals,

⁴ Section 2(g), The Punjab Infectious Diseases (Prevention and Control) Act 2020

⁵ Section 2(b), *ibid*

⁶ Section 2(j), *ibid*

⁷ Section 2(f), *ibid*

⁸ Section 3(1), *ibid*

⁹ Section 4(a), The Punjab Infectious Diseases (Prevention and Control) Act 2020

diagnostic centers, clinics, or any other facility that provides healthcare services, as a center to facilitate the treatment of the people affected by the disease. This implies to the facilities that are not owned, managed, or associated with the government¹⁰.

To control the spread of the disease it is crucial to limit and regulate public gatherings. To address this issue, the Director-General Health can issue orders, adhering to the laws in PIDA, to prohibit, impose restrictions, or mandate one or more requirements for events or gatherings taking place in a certain period.¹¹ These orders can relate to the timing, the number of people participating in events, or the place where the event will take place. The owner of the location of the event and/or organizers or any associated person related to the event can also come under the restrictions as per the direction of the Director-General Health.

If a certain area has been infected, the Director-General Health can issue directions to contain the infection in that area and not let it spread. The place can be sealed, prohibiting any entry or exit from it, for a specific time. Certain conditions can be put into place to allow conditional exit or entry into the area for that period¹². The Deputy Commissioner of the concerned area, on the advice of the secretary, can impose one or more requirements on transportation of any person, goods, vehicle, or vessel into an area for a specific period¹³. The concept of Smart Lockdown which is commonly known in the public comes from these sections of the act.

Any person who has been identified as a potentially infected person is obligated by this law to remain in a specific location for a specified time. The responsibility lies with the notified medical officer, who declares the individual as a potential risk, to guide him to the place where the screening and assessment process can take place and the person can then be directed, if diagnosed with the disease, to the place where he can remain for a specified time¹⁴. The person may remain in the assessment and screening centre for around forty-eight hours. In case the concerned individual refuses to cooperate with the Medical Officer, the Police under the orders of the District Police Officer will escort that person to the assessment and screening centre.

To assess the level of risk the potentially infected person poses, the Medical Officer can impose one or more screening requirements that must be met¹⁵. This section bounds such an individual to answer all questions truthfully which relate to his travel history and health and to provide any health-related documentation that is demanded by the officers in charge during the screening and assessment process. He must allow the personal examination to assess his health and physical condition, and let the medical officer take measurements such as body temperature and submit biological samples by proper means as per requirement¹⁶.

The Notified Medical Officer plays a pivotal role in the law as he is entrusted with some of the most important duties and the power to fulfill them as well. Once a person has passed through the initial screening and assessment and found to be contaminated or infected, he can be directed by the Medical officer to:

- To undergo further investigation
- Remain at a specific place for a specific time
- Self-isolate
- Limit his movements or travel within or outside the city or province
- Limit work or business activities
- Limit contact with other people¹⁷

¹⁰ Section 4(b), *ibid*

¹¹ Section 7, *ibid*

¹² Section 8, *ibid*

¹³ Section 9, *ibid*

¹⁴ Section 10, The Punjab Infectious Diseases (Prevention and Control) Act 2020

¹⁵ Section 11, *ibid*

¹⁶ Section 11(2), *ibid*

¹⁷ Section 12, *ibid*

This section determines the restriction period of up to 14 days in normal circumstances. The Medical Officers have the authority to direct the Police Officer to enforce these directions in case the individual does not cooperate.

This law also places the responsibility on the residents of Punjab to provide information regarding any person who they know or have a reason to believe, might be contaminated or infected¹⁸. They must notify the concerned authorities so that the appropriate measures can be taken to determine whether such a person is, in fact, a potentially infected person or not. The healthcare authorities can't monitor every individual; hence, implementation of this law is critical for every person living in the Punjab province to control the spread of the infection.

Under this Ordinance, an offense is defined as the failure to comply with one or more directions or guidelines, to disobey the restrictions imposed, or not fulfil one or more requirements set by the government or notified medical officers, without any reasonable justification¹⁹. The punishment for a first-time offense for an individual, under this section, is imprisonment for a period not more than two months or a fine not exceeding 50,000 rupees or both. The term for imprisonment can be increased up to six months if a repeat offense is committed by an individual. An alternate punishment could be a fine of a maximum of 100,000 rupees or a punishment involving both fine and imprisonment. The Ordinance determines separate punishments when the offense is committed by a body corporate. A first-time offense will result in a fine which shall not be less than 50,000 rupees and not more than 200,000 rupees. A repeated offense will result in a much heavier fine which will range from 100,000 rupees and 300,000 rupees²⁰.

For certain violations, some strict punishments are present in the Ordinance. If a person who has been declared a potentially infectious person does not adhere to the guidelines provided to him by the Medical officer, or provides misleading or false information, or does not cooperate with the person who has been authorised by this law and obstructs the implementation of the law, then he shall be liable for such punishments. According to Section 18, a first-time offender will be punished with imprisonment for not more than three months or a fine not exceeding 50,000 rupees or both. A repeated offender will have to face imprisonment for not more than one year or a fine of 100,000 rupees or less, or both fine and imprisonment²¹.

The Ordinance has placed much serious consequence on people running away from facilities that are used for screening and assessment or retention of infected or contaminated people. Under this law, a first-time offender will face imprisonment for not more than six months or a fine not exceeding 50,000 rupees or both. A repeat offense will result in imprisonment for not more than 18 months or a fine not exceeding 100,000 rupees or both²².

All the punishments determined by this law shall be exercised once the person or the body corporate has been convicted from the Court of Law. A positive aspect of the Laws determined in this Ordinance is that they determine an upper and lower limit on the punishments which ensures that the court cannot impose any other amount of fine or imprisonment time outside these limits. These limits have been imposed considering the modern standard of punishments which restrict the arbitrary powers the courts exercise and minimize the misuse of the law. Only a Magistrate of first-class will have the power to take cognizance of the offence under this Ordinance. All the offences under this law shall be tried in court in summary trials according to the procedures provided in the Code of Criminal Procedure 1898²³.

PIDA 2020 and the Pakistan Penal Code 1860

The Pakistan Penal Code, part of the Federal legislation, is a fundamental penal law that defines offences and their punishments. It contains several laws that pertain to the control and

¹⁸ Section 14, *ibid*

¹⁹ Section 17, *ibid*

²⁰ Section 17(5), The Punjab Infectious Diseases (Prevention and Control) Ordinance 2020

²¹ Section 18, *ibid*

²² Section 19, The Punjab Infectious Diseases (Prevention and Control) Act 2020

²³ Section 20, *ibid*

prevention of infectious diseases and provides punishments regarding violations of these laws. As they are part of the federal legislation, they are applicable in all provinces and can be enforced in the Punjab province as well. These laws can be synergized with the Punjab Infectious Diseases (Prevention and Control) Act 2020 to strengthen the legislative structure of the Punjab government to control the COVID-19 pandemic and any other infections.

For example, Section 269 states that any individual who performs an action that may result in the spread of an infection of any life-threatening disease shall have to face the punishment of imprisonment of a maximum of six months or be charged with a fine or both²⁴. Similarly, Section 270 states punishment of imprisonment of a maximum of 2 years or be charged with fine or both, when such an action is performed deliberately knowing the harmful consequences of the action²⁵. Section 271 defines the punishment for the offense of knowingly disobeying the laws which place a certain location under quarantine for a specified time and limiting or prohibiting commute in an area that has been declared affected by the infectious disease. The punishment consists of imprisonment of not more than six months or imposing a fine or both²⁶.

The sections discussed above are very similar to the ones discussed in the PIDA but lack effectivity and are seldom used practically. However, with the help of the PIDA 2020, the Punjab Government can utilise these laws to deter those people who knowingly act negligently and end up becoming the cause of the spread of the disease. This will also make the people who intentionally perform such actions to think twice before they do such an act. The Government of Punjab needs to implement these laws strictly and without any bias for the successful control and prevention of COVID-19. The laws vis-à-vis vaccine hesitancy.

Creating awareness about the vaccine and laws in society

Creating a legislative framework is the first step towards slowing down and eventually overcoming the crisis that is evolving due to the Pandemic. It builds a foundation on which a whole system needs to be developed which will help in the effective implementation of these laws. The public needs to be educated about the importance of these laws and the dangers and possible legal consequences of not following them. These laws mainly concern the prevention and control of infectious disease and vaccine is one of the major tools that help in the prevention of disease. The government should take measures that increase the acceptability of these laws and decrease the vaccine hesitancy among the public.

Along with the legal framework, the administrative and societal systems need improvement and are brought together in the fight against COVID-19 and vaccine hesitancy. All government systems along with educational institutes, media outlets, and religious fronts need to help educate the public about the virus and the associated vaccines. The public should have a platform that provides them with accurate and credible information, which clears misunderstanding and responds to general questions and concerns that arise in their minds.

Pakistan being an Islamic country, its people are highly influenced by religious scholars, and any information presented from a religious perspective is widely accepted. However, some opportunists use this factor and spew conspiracy theories tied to religious beliefs. Most of the people that are anti-vaxxers in Pakistan have a distorted point of view that these vaccines are unlawful in terms of religion, based on false information such as vaccines being pig-derived products, etc. A lot of enlightened religious scholars who have deep knowledge of the religion and knowledge of basic sciences have denied these views and declared vaccines as a lawful and valuable source for preventing an illness. Pakistan gained help from such scholars who educated people on the polio vaccines (Khan & Chiau, 2015). The government needs to keep constant communication and interaction with such scholars to gain their help in educating the public so that vaccine hesitancy for polio and the upcoming COVID-19 vaccines can be reduced. A recent survey, which involved over 1.4 lac participants from all over the world, concluded that the attitude towards vaccines is directly related to how much the public

²⁴ Section 269, Pakistan Penal Code 1860

²⁵ Section 270, *ibid*

²⁶ Section 271, Pakistan Penal Code 1860

is aware of the infectious disease. Hence, to achieve acceptability on vaccine effectiveness, importance, and most importantly safety, active public awareness campaigns are crucial (Gallup, 2018).

Moreover, the mass media in Pakistan has an important role to play when it comes to public awareness because they reach every Pakistani and help in shaping a lot of opinions based on what they display. By performing their job sensibly and professionally, and rising above their mutual competition, they can help the country rise above this health crisis. The media outlets should be vigilant in what information they provide for the COVID-19. No such report or news should be aired which might confuse or mislead the public. Technical medical discussions should be avoided as the masses will not be able to relate to it and could end up in a false sense of panic or relief. Individuals which do not have a medical background should not be involved in discussions regarding the virus, only health professionals should be approached for such a task. In general, when information comes from a famous person or any individual the public can relate to, that information is regarded highly. Services of such people can be used to build public awareness campaigns to educate people on preventive and control measures for the virus, and the importance of vaccines (Khan et al., 2020).

Pakistan can take help from the example of other countries and the approach they use to counter anti-vaxxers and the misinformation surrounding it. By tailoring these methods to the societal, cultural, and religious norms of the country, Pakistan can make immense improvements in changing the attitudes of its people towards these infectious diseases, their treatments, and vaccinations. However, through the lessons learned from the 2009 A/H1N1 pandemic, this is not a one-time process (Verger et al., 2018) (Peretti-Watel et al., 2013). The factors affecting the trust of the public in vaccinations need to be monitored periodically in the months and years to come and should be re-enforced, when needed, to maintain this trust.

Conclusion

The study finds that the legal framework for dealing with anti-vaxxers in Pakistan is substantially effective. However, it will need executive willingness towards enforcing it on vaccine hesitancy issue vis-a-vis COVID-19 vaccination campaign. Moreover, the arguments focus on enhancing the socio-cultural response to vaccine hesitancy along with legal actions. The response against polio vaccine hesitancy has not been effective because of religious and social factors because the legal action against anti-vaxxers often falls prey to the religious pressure from the religious political parties. Along with educating population about the significance of vaccination, the government need establish effective enforcement measures to get maximum population vaccinated. In the case of the COVID-19 vaccine, the response forms the state should be prompt and the anti-vaccination campaigns should be a nip in the bud. The response to the vaccine hesitancy include checking social media campaigns, taking religious leaders in confidence, and enforcing laws without any influence from the pressure groups.

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