

**Local perception and socio cultural constraints towards
COVID-19 vaccination: A Multi-sited ethnography**



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Islamabad – Pakistan
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Thesis submitted to the Department of Anthropology, Quaid-i-Azam University Islamabad, in partial fulfillment of the degree of Master of Philosophy in Anthropology.

Quaid-i-Azam University

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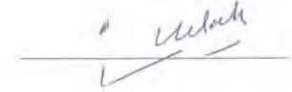
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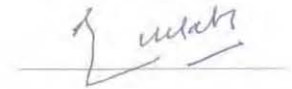
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ABSTRACT

The study aimed to explore the socio-cultural constraints and local perception towards COVID-19 vaccination and describes how socio-cultural factors influence the perceptions and behaviors of local people in the selected locales. Different myths and misconceptions, specific cultural beliefs, conspiracy theories, media, and religious perspectives made and molded the perceptions and attitudes of people for vaccinations. This research aimed at investigating the public perception in two different cities i.e., Islamabad and Narowal. Islamabad is a metropolitan city and Narowal is a semi urban area to get diverse perceptions of people depending on different backgrounds, socio-economic statuses, education levels and specific cultural beliefs. Socio-cultural constraints influence the perceptions and attitudes of people have also been explored which involves several myths and misconceptions. Twenty-five respondents of different age, profession, gender, class and sects were selected as research sample. The sample was selected by using purposive sampling method. The research is multi-sited ethnography and employs qualitative research methods such as in depth-semi structured interviews, informal discussions, participant observations and key informants to collect data. The key findings demonstrate that varied perception of local people about vaccines exists in the research area. These varied perceptions influence the attitudes of people towards vaccinations accordingly. These perceptions were mainly dependent on the locales, economic statuses, education, cultural beliefs, and backgrounds of the people. The people of both locales have difference in their backgrounds that is why the researcher chose it deliberately. The respondents in a semi urban city and have a lower socio-economic status, their perception was more influenced by socio-cultural constraints due to lack of education and their cultural beliefs. Hesitancy has been observed among those respondents. As compared to the people in metropolitan city who have a higher socio-economic status, their perceptions are not influenced by socio-cultural constraints, but they are influenced by conspiracy theories on social media. Relatively less hesitancy has been observed among those people. But the respondent's perceptions of both regions did not only dependent on their cultural settings and backgrounds and did not remain same throughout the episode of pandemic. They got influenced by several factors which were prevalent in the society. This study explained those factors in detail which gradually making and shaping up the perceptions of people towards COVID-19

vaccinations. The hesitancy among people and their reluctance towards vaccinations was becoming a reason of spread of the virus. As coronavirus is a lethal disease and affected many countries worldwide. In Pakistan, the public understanding, perception, and knowledge has influenced the mode of its transmission. Because many respondents were of the view that there is no existence of such virus, it is all propaganda from the west to kill Muslims. And a conspiracy of some elites who are ruling the world deliberately spread this virus to minimize the population of the world from 7.9 billion to 3 billion. And due to lack of trust on government too, some people were not following the precautionary measures and did not believe on its vaccinations. This behavior and perception of people has been greatly observed among respondents of both rural and urban research settings.

Key words: *Perception, Vaccination, Socio-cultural constraints, Cultural barriers, Socio-economic status, social media, Conspiracy Theories*

LIST OF ACRONYMS

COVID-19	Coronavirus disease 2019
WHO	World Health Organization
SOPs	Standard Operating Procedures
IHREC	Irish Human Rights and Equality Commission
BCG	Bacillus Calmette Guerin (vaccination)
NGO	Non-Governmental Organization
CIA	Central Intelligence Agency
US	United States
FATA	Federally Administered Tribal Areas
KPK	Khyber PakhtunKhwa
PEMRA	Pakistan Electronic Media Regulatory Authority
DHQ	District Headquarters

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1. Introduction

The world is full of disasters and diseases; it is not until 2000 that humans are seeing a pandemic. Throughout the whole history, we can see that different diseases occur in the world which has destroyed human beings badly. A pandemic is considered one of the worst cases in the circle of infectious diseases and these diseases have badly affected humans. About 10,000 years ago, when there was a hunters and gatherers society who shifted their lives to agrarian life, in that era diseases existed too such as malaria, influenza, smallpox, etc. These are early diseases that occurred for the first time in that period (Hagen, 2020).

With the emergence of different diseases in the past, there were also different treatments and prevention for those infectious and contagious diseases with medicines and vaccines. Vaccines vary from conventional prescription medications in two key respects. The first is that rather than treating disease, they are made to prevent it. They achieve this by training the immune system of the patient to recognize a particular pathogen, such as a virus or bacteria that causes a disease. This "memory" can continue for years or even forever in some situations. Vaccinations can be quite helpful in preventing illness rather than treating it. They can also be effective for the disease even before it occurs and develops immunity against the disease. The second is that, by their very nature, vaccines are biological products rather than chemical ones like the majority of medications (Joi, 2021). But according to various studies, their usage has created reluctance initially due to different factors like socio-cultural, economic, political, and historical and it varies from country to country. Also due to anxiety about its side effects, suspicion and distrust of government-sponsored vaccination programs are common (Ali, 2020). It is also illustrated that when poliomyelitis infections in Pakistan shot up dramatically in 2014, IHREC (Irish Human Rights and Equality Commission) declared Pakistan under a Polio health emergency. Pakistan must counter religious propaganda and ideological and social issues to be successful in the vaccination program. Pakistan also needs to overcome the gaps in vaccination coverage, address the limitations of the poor health system and improve the security of vaccination teams (Hussain et al., 2016). Similar challenges were also faced at the start of the COVID-19 vaccination campaign.

Corona is an infectious disease that was discovered in China's city named 'WUHAN' and it was considered as an unknown disease. According to WHO, the disease was first reported on December 31, 2019, in China. WHO tried its best to cooperate with people who suffered from this disease? At first, they did not know which type of it is but after analyzing data they gave this disease a new name known as 'COVID-19' on 11 February 2020. Pakistan is also included in one of the countries which suffered from this pandemic. On February 26, 2020, this virus was first reported in Karachi. Since its emergence, COVID-19 has been a challenge for the global healthcare system. The disease has claimed almost 6.4 million lives and has infected more than 576 million people. The virus spreads through sneezing, coughing, and the discharge of fluid from the nasal cavity and other body fluids as well as via direct contact with the infected person. Most of those infected with COVID-19 show only minor or no symptoms, making them a risky source of infection that could speed up the spread of the disease (Markel, 2020).

As a result of social contact, Pakistani men, and women between the ages of 19 and 59 were more at risk for developing the disease. Another factor is that healthcare professionals were becoming more infected due to inadequate protective gear. In most cases the disease is asymptomatic till the incubation period of the virus is over, after those symptoms like mild fever, coughing, and difficulty in breathing can be observed. The rapid spread of the virus is because of asymptomatic infected people (Ahmad et al., 2021).

COVID-19 was spreading rapidly. With the rapid increase of this infectious disease, there was a need to discover medication or vaccination and other precautionary measures so that affected people can be treated and to control this pandemic quickly because it was getting worse. Several vaccinations have been discovered earlier for different diseases. As a result of vaccinations, the burden of disease, suffering, and mortality has been dramatically reduced. Vaccination saves an estimated 4–5 million lives annually (Ahmed et al., 2020). Even within a country, there is a vaccine coverage gap. According to the World Health Organization (WHO), vaccine hesitancy is a significant danger to world health in 2019. Fear of measles, diphtheria, and pertussis outbreaks was one of several factors contributing to vaccine reluctance. Influential religious and political leaders and other religious ideas all played a role in vaccination refusal. Some people have personal beliefs that natural

remedies are better than a vaccination and allopathic treatments, these also affect the acceptance or rejection of vaccines. Vaccination efforts in Pakistan fall short of international benchmarks. Bacillus Calmette Guerin (BCG) vaccination (vaccination against tuberculosis) coverage is reported at 80%, polio vaccination coverage at 60%, and measles vaccination coverage at 67% (Butt et al., 2020). It is because of technical and training issues, a lack of awareness and education among parents, and political and religious influences on the advertising of vaccination benefits. By spreading conspiracy theories, religious and political leaders have had a significant impact on vaccination programs in the recent past. These beliefs are also to blame for Pakistan's polio eradication failure. Government approval, employer recommendations, and cost-effectiveness are all variables that contribute to the acceptance of the COVID-19 vaccine. Several anti-vaccination groups are actively opposed to the vaccine and even deny its existence (Goldman et al).

(Akhtar et al., 2021) conducted a study to demonstrate that hesitancy against vaccination is strong and pervasive in many regions of the world, particularly in low- and middle-income countries. Vaccination is necessary to control the spread of SARS-CoV-2 during the present epidemic caused by Covid-19. Therefore, in addition to the production of the vaccine and its availability, it is essential to prepare the public to get vaccinations. The general population in Pakistan may be hesitant to get vaccinated against Covid-19 due to the proliferation of many conspiracy theories on social media.

The vaccination program for COVID-19 in Pakistan started in May 2021, more than a year after the first case of COVID-19 was reported in the country. In the first step, vaccines were given to the front-line health workers and law enforcement personnel working to assist the healthcare workers. In the next phase, vaccines were administered to older adults above age 60, and the process continued progressively. However, the vaccine program faced unprecedented challenges in terms of vaccine rejection and vaccine hesitancy. People were not willing to get vaccinated due to multiple factors. As of now, 58.8% of the Pakistani population is fully vaccinated, far less than most countries worldwide (Ritchie, 2020).

According to World Health Organization (WHO), the types of vaccines for COVID-19 are Pfizer BioNTech, Sinopharm, Sinovac, Bharat Biotech, The Moderna, Oxford/AstraZeneca, The Janssen, and Novavax. Now different booster doses have

also been discovered. In Pakistan, a general hesitance was observed at the start of the vaccination drive against COVID-19. It was observed that some people were not taking the disease seriously and were not willing to get vaccinated. It was attributed to a local perception of reluctance and acceptance towards vaccination. For this study, the researcher chose two geographical regions to analyze the diverse perceptions of people for vaccinations belonging to different cultural backgrounds and having different socioeconomic statuses, education levels, and socio-cultural settings, And how their perceptions are being made and shaping up towards vaccination while depending on their existing statuses, regions, and backgrounds or they got impacted with other socio-cultural factors like religion, mainstream media, social media, conspiracies, and other cultural barriers. The study investigates such local perceptions about vaccination under the subfield of Anthropology i.e. Medical Anthropology in the locales of the capital city of Islamabad and a semi-urban city of Narowal(Punjab) to get diversified data.

1.1. Statement of problem

This Multi sited ethnography intends to explore what are the factors which affect the behaviors and perceptions of people towards COVID-19 vaccinations in the selected locales. The research also builds an understanding to determine the perceptions of people towards COVID -19 vaccination. It further explores socio-cultural barriers and constraints towards COVID-19 vaccination among the respondents.

Objectives

This multi-sited ethnographic study focuses on the following objectives:

- To explore the local perception of people towards COVID-19 vaccination
- To find out the conspiracy theories about vaccinations
- To unpack the role of media and ulemma's perspectives about vaccination
- To discern socio cultural constraints about vaccination?

1.2. Definition of key terms

1.2.1. COVID-19

World health Organization (WHO) 2020 explains Coronavirus as, (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. COVID is the abbreviation of 'CORONA VIRUS DISEASE'. COVID-19 is an infectious disease

that is characterized by severe flu, coughs and may results in failure of respiratory system (Cennimo, 2020). The COVID-19 created a great hype and there were different perceptions of people towards it and this research study focuses on the changing perception of people for its cure.

1.2.2. Vaccination

In conformity with WHO 2020, immunization is a global health and development success story, saving millions of lives every year. Vaccines reduce risks of getting a disease by working with your body's natural defenses to build protection. When you get a vaccine, your immune system responds. This study's purpose is that how local people perceive vaccination of COVID-19 or how people think about this phenomenon of vaccination given by WHO.

1.2.3. Local Perception

Perception is the sensory experience of the world. It involves both recognizing environmental stimuli and actions in response to these stimuli. Through the perceptual process, we gain information about the properties and elements of the environment that are critical to our survival. Perception not only creates our experience of the world around us; it allows us to act within our environment (Cherry, 2020). The research study takes the concept of the psychologist Kendra Cherry and sees how people perceive and give response to the COVID-19 outbreak; how they are reacting i.e. either they are looking for the cure (vaccination) or they are scared of vaccines. Here 'Local' means the local person, any person of localities and how they are perceiving COVID-19 and vaccination.

1.2.4. Conspiracy theories

According to Scott Reid Conspiracy theory is an attempt to explain harmful or tragic events as the result of the actions of a small powerful group. Such explanations reject the accepted narrative surrounding those events; indeed, the official version may be seen as further proof of the conspiracy. The researcher also focuses on the conspiracy theories about vaccination which developed by some people as a result of the content spread on social media which somehow against the vaccination like vaccines producing serious illness among people. People are dying, they are becoming infertile, it's not safe, it's not proper cure etc. Some people got afraid by these conspiracies and became hesitant to get vaccinated. And due to emergence of

new variants of Corona these conspiracies also getting stronger and indicate that vaccines are of no use.

1.2.5. Multi-sited ethnography

The concept was proposed by George Marcus in 1995, presenting it as a paradigm shift in modern ethnographic studies. It is an alternate for doing ethnographic fieldwork in more than one geographical location. The term is predominantly used to explain the co-existence of more than one physical site within the same research design. It can also be appreciated as an original approach to ethnography (Marcus G., 2011; Boccagni, 2020). The researcher used this method of multi-sited ethnography to observe the perception of people about vaccination in more than one geographical location.

1.2.6. Vaccine Hesitancy

Delay for accepting vaccination or refusing immunizations, although the availability of vaccine services is known as "vaccine reluctance" (Butler and McDonald, 2015). Butler and MacDonald's idea of vaccine hesitancy utilized to investigate the reasons of people's hesitancy about vaccination even though it was widely available.

1.3. Thesis Outline

The first chapter introduces the topic of the research. It mentions the problem statement, the objectives of the study as well as understanding of the important key terms that are utilized throughout the research and thesis, significance of the study also highlights in this chapter.

The second chapter documents all relevant literature about the topic and makes references to related research work, studies and different research on COVID-19 and vaccinations.

Third chapter is sub divided into two parts. The first section deals with details about research setting/locale whereas the second part/ section deals with the selection

and utilization of different research methods and sampling techniques to extract purposeful data.

Fourth, fifth and sixth chapter explain the findings of the research. Fourth chapter describes the perceptions of local people for COVID-19 vaccinations and conspiracy theories. Fifth chapter describes the role of media and religion on shaping up the perceptions of people towards vaccination. Whereas the sixth chapter explores the socio-cultural constraints face by people and their role in making attitudes of people towards vaccinations. The last chapter presents a summary, conclusion, and way forward as recommendations and suggestions.

2. Literature Review

A review of the existing literature was conducted to understand different aspects of vaccination. The existing literature was used to understand people's beliefs, perceptions, and attitudes toward vaccination in general and COVID-19 vaccination, both in Pakistan and globally. According to (Chaudhary et al., 2021), the spread of COVID-19 has been halted by implementing preventative measures such as social isolation, quarantine, a ban on traveling, and closure of markets and public institutes, use of protective gear, and cleanliness efforts. These indicators had an impact on people's physical, psychological, and economic well-being, which in turn had an impact on society. Long-term containment of the COVID-19 pandemic required mass vaccination, which has proven to be the most effective method. For the success of the COVID vaccination drive, it was essential to plan the long-term development of efficient vaccines and deliver the vaccines uniformly to all sections of society. By November 2020, several companies across the globe started to conduct trials of COVID vaccines. Moreover, due to the urgency of delivery of these vaccines to the public, some of those vaccines were approved for public administration till December 2020. This approval was followed by the commencement of mass vaccination campaigns throughout the globe. At the same time, many beliefs, prejudices, misunderstandings about the harmful impacts, abnormally rapid creation, and early authorizations are circulating in the social and print media—consequently, these foster skepticism about the vaccine and uncertainty about inclusion and participation in the vaccination campaign.

Reluctance toward vaccination is not a new problem, but it has been threatening the success of vaccination programs much before the emergence of COVID-19. However, the magnitude of vaccine non-approval varies with time and country. It is found that reluctance toward vaccination depends on numerous factors like passivity, ease, and comfort. The behavior is observed in even developed countries as well. For instance, a survey in the USA, conducted in 2021, reported that 20% of entire participants showed reluctance in taking COVID vaccination while 31% were doubtful whether to take the vaccine or not. A similar situation was observed in China, where citizens' belief in COVID vaccination programs is shattered by controversies about its side effects and safety. Pakistan, a developing country with a low level of awareness about healthcare among the general public, has historically

struggled to overcome vaccine hesitancy. The polio vaccination program, for example, is still facing the controversies that the vaccine is substandard, causes infertility, is a western conspiracy against Muslims and carries an active virus (Chaudhary et al., 2021). Similarly, several analysts and public figures, like Syed Zaid Hamid and former Pakistan foreign minister Mr. Abdullah Hussain Haroon, claimed that the pandemic is a part of a larger plan targeting the middle and southern hemispheres and that Islam prohibits the use of vaccines (Opnindia.com, 2020).

It is also being said that these vaccines carry embedded nano-chips that will be used to control humans via 5G technology. However, it is unclear how much these assertions have impacted Pakistan's vaccine reluctance. A better understanding of what influences vaccine acceptance in the population is necessary to help expand the vaccination program and make it more efficient (Glatman-Freedman & Nichols, 2012). Despite vaccinations against COVID-19, vaccination rates vary widely from country to country. Demographic characteristics such as literacy rate, socioeconomic level, occupation and religiosity, type of living area, and attitude and opinions about vaccine-related concerns influence vaccine acceptability among the general public. Vaccine hesitation refers to a person's reluctance to get vaccinated. COVID-19 vaccinations can now be purchased from pharmacies. A person's trust level in the vaccination process, vaccination availability, and perceived risk of exposure all play a role in determining vaccine reluctance in an individual. To get a comprehensive immunization, it is crucial to know if the vaccine is cost-effective and accessible, as well as whether it is safe and effective. The safety of the COVID-19 vaccination is being debated (Samo et al., 2022).

South Asian countries in general and Pakistan have traditionally been victims of vaccine reluctance. One example is the people's resilience to polio vaccination programs in Pakistan and Afghanistan. These are the only two countries where Polio is still present and the main reason behind these people's attitude toward vaccination. In the light of the previous experiences in the case of Polio, similar vaccine reluctance is also observed in the case of the COVID-vaccination drive (Samo et al., 2022).

2.1. Sociocultural barriers against vaccination

Low- and middle-income countries have been hit hard by vaccine-preventable diseases, which have reemerged in high- and medium-income countries. Several factors influence the efficacy of regular immunization programs. Immunization

programs worldwide can be affected by social variables, which can be facilitated by globalization and increased communication (Glatman-Freedman & Nichols, 2012). Despite the focus on scientific, epidemiological, and economic aspects of vaccinations, social variables can substantially impact vaccination efforts worldwide. Social variables may significantly impact vaccination rates among children in poor and middle-income countries (Rainey et al., 2011). Some socioeconomic determinants can be found in any country, while others are peculiar to a particular demographic. The creation of strategies to address social variables to maximize vaccination coverage will require an understanding of how they affect routine immunization programs in diverse nations.

In Pakistan, vaccines are imported mainly from Western countries, and a constant cultural conflict limits the efficacy of such vaccination programs. People have a general mistrust towards Western countries, which is also exploited by anti-vaccination campaigns in the country. Religion also plays a role in vaccine hesitancy among common people in Pakistan. Religiously two factors can be considered vital. One is that people believe that Western countries are enemies of Islam, and to reduce the population of Muslims, they are using vaccines to induce sterility in Muslims. The other belief is that ailment is a consequence of wrong deeds, and the treatment lies in spiritual methods rather than therapeutic approaches to disease treatment. People tend to go to shrines and perform special prayers to get protected from such diseases rather than getting vaccinated (Hussain, 2011). The following sections of the literature review will discuss general challenges to vaccination in Pakistan considering existing literature and the polio vaccination program.

2.2. Challenges to Vaccination Programs in Pakistan

When poliomyelitis infections in Pakistan shot up dramatically in 2014, IHREC declared Pakistan under polio health emergency. According to the declaration, Pakistan must counter religious propaganda and ideological and social issues to be successful in the vaccination program. Pakistan also needs to overcome the gaps in vaccination coverage, address limitations of the poor health system and improve the security of vaccination teams (Hussain et al., 2016). Similar challenges were also faced at the start of the covid-19 vaccination campaign. The following sections of the paper present a review of the literature about the sociocultural barriers to vaccination in Pakistan.

2.3. Poor Literacy Rate

Basic adult literacy in Pakistan is roughly 60%, with a relatively higher rate in urban areas than in rural areas, where two-thirds of the country's population lives (Owais et al., 2013). As a result of various factors, Pakistanis are less likely to get vaccinated than their counterparts in other countries. Immunizing children against measles, Polio, and tuberculosis is a controversial practice in many Muslim countries because of misconceptions about the purpose or effectiveness of inoculation. Parental resistance is a significant obstacle to the vaccination effort. Additionally, some families were concerned that frequent usage was a kind of sterilization or the use of poor vaccines (Khan & Sahibzada, 2016).

2.4. Cultural Issues

Barriers to immunization in some groups include cultural difficulties, such as when there is no female vaccinator to carry on vaccination, the male vaccinators are sometimes not allowed to come into the houses (Owais et al., 2013). Vaccine refusal can also be attributed to a general lack of knowledge about infectious diseases (SteelFisher et al., 2015).

2.5. Propaganda against Immunization Programs

Some religious clerics and militants from the Pakistan-Afghanistan border region have launched a propaganda campaign to link vaccination programs with Western sterilization plots and portray vaccination providers as US Central Intelligence Agency (CIA) spies. It is especially true after it was revealed that the CIA funded a fake hepatitis B vaccination campaign in Abbottabad to trace Osama bin Laden (Mushtaq et al., 2015). Even in rural FATA and KP, where vaccination refusal rates are the greatest and polio cases are the most prevalent, there remains a strong distrust of the polio-eradication program (Alexander et al., 2014). Because they are considered to follow a Western agenda, vaccinators in conflict-affected areas of FATA and KP experience severe resistance. Compared to low-conflict areas, only 25% of FATA inhabitants trusted vaccines, underscoring how ubiquitous this story has become (Bhutta, 2013).

2.6. Vaccine Hesitancy in Pakistan

Pakistan reported its first two cases of COVID-19 on February 26, 2020. Immediately after the initial cases of the pandemic, the government decided to implement preventive measures. Pakistan was regarded as a potential hotspot for the spread of the pandemic mainly because of its vast population of nearly 204.65 million and poor healthcare system (Akhtar et al., 2021). Due to its fragile economic condition, the government was unwilling to impose strict lockdown measures to curb the spread of disease as it was done in the most developed western countries. In the light of such circumstances, the only option for Pakistan to overcome the epidemic was mass vaccination (Kashif et al., 2021). However, the public's response to the pandemic was not that serious. Some people paid attention to the news and tried to observe the precautionary measures, but many did not heed government advertisements and awareness campaigns. For instance, during Ramadan, mass prayers were performed for the whole month, people were buzzing in the streets on the days of eid, and there was no observance of social distancing (Noreen et al., 2021).

Numerous conspiracy theories, such as the virus being genetically created and a vaccine, including surveillance microchips, invaded social media sites (Muhammad et al., 2022). Public anti-vaccination behavior was also influenced by the widespread dissemination of misinformation about vaccine safety and efficacy and by fallacies that vaccine causes infertility. As a result, many people doubted if there was a virus or the situation's seriousness. Rural Pakistan had a greater prevalence of these conspiracy theories. Religious beliefs have also hampered the uptake of vaccines. According to confident religious leaders, vaccines are not permissible under Islamic Shariah since they are not halal. According to some who believe vaccines are a Western plot to destroy Muslims, there is much skepticism about vaccines. Gallup Pakistan found that while 46% of Pakistanis were eager to vaccinate their children, 42% said they would rather not have vaccinations developed in the West (Gallup, 2021). The politicization of the vaccination drive has exacerbated public uncertainty and fostered the perception that the government is exploiting the illness for financial gain. In addition, vaccine safety concerns have a considerable impact on vaccination rates. The hesitation to get vaccinated results from speculations regarding the vaccine's efficacy and adverse effects. According to another rumor, the vaccine itself is infected with the virus. In a poll conducted in 2020, 4.9% of participants expressed

concern about becoming extremely ill within six months of receiving the vaccine, while 39% were sure they would get the virus soon after (Khan et al., 2020).

2.7. Role of Sociocultural Factors towards unacceptance of vaccination programs

Sociocultural factors played a significant role in this non-acceptance of disease by the Pakistanis; because of this, many people were not interested in taking covid-19 vaccine shots. The situation was so grave that until February 2021, a year after the emergence of the pandemic, only 0.2% of the Pakistan population had received the first dose of the vaccine (World Health Organization, 2022). After that, the government made it compulsory to get vaccination certificates, go to offices and public places, and get salaries. The government of Pakistan started taking strict measures like making vaccination certificates compulsory for travel, entrance into educational institutions, and getting salaries for government employees. These measures are evidence that there was an attitude of unacceptance towards vaccination when the vaccination programs were initiated (Muhammad et al., 2022).

2.8. Role of Conspiracy Theories

Mistrust and suspicion toward vaccination programs are not new phenomena. The history of such conspiracy theories dates to the early 1990s with the commencement of polio vaccination programs in African and Asian countries (Salmon, 2001). These communities were fed malicious propaganda that these vaccines contain substances that can make their females infertile because the West countries consider nonwestern countries a threat to their domination. It was propagated, especially in Muslim countries, that vaccines against various infectious diseases are a tool to reduce the Muslim population to maintain Western domination over the Muslim world (Salmon, 2001). As soon as COVID-19 was declared a pandemic, a slew of bizarre conspiracy theories began circulating online. Pakistan is particularly susceptible to such conspiracy theories and has seen polio vaccination programs fail due to such accusations, making the country vulnerable. In Pakistan recently, two well-known social figures, Zaid Hamid, a renowned analyst, and Abdullah Hussain Haroon, former Pakistan foreign minister, claimed that COVID-19 vaccines were a hoax and a conspiracy against Muslim countries (Khan et al.2020). This concept in the locality supports vaccine reluctance.

A study by Khan et al. (2020) unearthed a conspiracy theory supported by renowned political and social activists and insisted the government take strict action against such bizarre theories. According to (Khan et al., 2020), vaccine apprehension is still a significant problem in Pakistan due to different conspiracy beliefs. Such theories are mostly to blame for the country's failure to eradicate Polio (Ali et al., 2019). In Pakistan, a conspiracy idea against the COVID-19 vaccine is now circulating. Political pundits and columnists in Pakistan recently said that the virus was a massive illusion to target Islamic countries and planned to allow Jews to govern the globe. They wanted to embed Nano-chips in the bodies of individuals to obtain control through 5G towers. It has been suggested that the virus was invented in the United Kingdom and then transferred to China for global propagation by a former Pakistani foreign minister. Pakistanis use social media to debate these theories actively. Anti-vaccine sentiment is prevalent in the country, and such conspiracy theories may help create seeds of doubt about the planned COVID-19 immunization campaigns (Khan et al., 2020).

In Pakistan, social media played a significant role in the spread of these conspiracy theories. Countries like Pakistan do not have any system to maintain a check and balance on social media activities. While social media has given people an unheard-of ability to interact, it has also played a significant role in the emergence of extreme viewpoints harmful to public health. Democracies struggle to balance the right to free speech with the need to monitor social media for defamatory information (Wilson & Wiysonge, 2020).

2.9. Social Media Disinformation Campaigns

Although vaccine reluctance is not a new concern, spreading false information against vaccination through social media has given it a greater sense of urgency, particularly considering the coronavirus pandemic and hopes for rapid development and use of a vaccine. According to Davies (2002), anti-vaccination messages abound on social media, and studies dating back to the early 2000s show that a sizable portion of vaccine-related content can be found there. Social media has a "long tail" effect, making it easier for marginalized groups to spread their message because of the lowered barrier to entry. There can be a similar effect to ethnic outbidding¹⁸ in the case of anti-vaccination messaging. It is because if an anti-vaccination group's claims

are valid, they could have catastrophic consequences. The Spiral of public anxiety and menace is met by more aggressive promotion of incentivized negative repercussions. Such social media groups in general and in Pakistan either present themselves as healthcare experts and analysts or pursue emotional appeals to spread fear among people against the vaccines. It is repeated rhetoric that vaccines are synthesized by big corporations, which first spread the disease and then create a vaccine against it to earn money. (Davies, 2002) A cross-sectional study described social media groups' tactics to spread disinformation against vaccines. The result of the study showed that around a quarter of anti-vaccination websites indicated official standing at the national or worldwide level, attempting to promote themselves as moral authorities. To support their claims, the vast majority of websites cited significant works by self-published authors and the alternative medicine press. Much information cited was supposed to be incriminating, but the source was never given credit. There was much haphazard referencing in everything from letters to editors to television interviews. The findings of research published in indexed medical journals were also cited, but the conclusions drawn were often at odds with those of the authors. This raised the fear that there may be much information about the risks of vaccination. Nearly two-thirds of all websites quoted rank-breaking medical professionals opposed to vaccination. The perception of a "discussion" among medical authorities was bolstered by the perception of a split among the professionals (Davies, 2002).

Another tactic was to present parents whose children had either suffered from any vaccine side effects or were paid to do propaganda against vaccination. To support the claims of such parents, doctors who present themselves as experts in immunology were presented to endorse the anti-vaccination claims. It was all done to trap the viewers into the harm of vaccination emotionally. According to these people, the method to prevent infectious diseases lies in adopting a healthy lifestyle rather than taking artificial vaccines (Davies, 2002).

Individuals' attempts to stay in touch when physically separated from one another may increase the use of social media as they look for ways to stay connected. Due to social media's tendency to disseminate disinformation and increase reluctance, this growing dependence on social media may be a cause for concern (Cascini et al., 2022)

Another essential factor of social media's impact is that one can gather like-minded people in a group or a broadcast. Such groups are widely seen on Facebook, where

people of a specific mindset are present together. Such groups share information about their mindset, and sometimes they are opposed by people of opposite mindsets. Such opposition has also resulted in widespread polarization in society (Cascini et al., 2022). During the COVID-19 epidemic, the prevalence of conspiracy theories and the spread of fake news across social media platforms have increased. The World Health Organization (WHO) warned about an infodemic in February 2020, when the global pandemic was expanding rapidly. An infodemic is a wave of fake news and misinformation that spreads on social media. Soon after the COVID-19 vaccines were given the green light for use, rumors and misconceptions regarding the shots began to spread at an alarming rate. The allegations that COVID-19 vaccines alter the human DNA, that the vaccine will be used to control human brains via microchips and 5G technology, and that the vaccination causes COVID-19 illnesses are among the current theories observed on social media. It was revealed that social media platforms YouTube, Facebook, and Twitter would collaborate to address the issue. This potentially incorrect information may have affected people's willingness to vaccinate against COVID-19. According to several studies, rumors can have a detrimental impact on people's willingness to get vaccinated against COVID-19 (Biswas et al., 2021).

A similar condition was also observed in Pakistan, where social media was filled with conspiracy theories as soon as the pandemic erupted. Even though it was not explicitly addressed in the study, social media's role as a source of information for healthcare workers during the pandemic was crucial in Pakistan's COVID-19 vaccine reluctance (Malik. et al., 2021). Similar research in Muslim-majority countries in the Middle East has linked social media posts to violence. This 'infodemic' must be fought with timely, evidence-based communication to prevent immunization efforts from being hindered by disinformation. There has been increased anti-coronavirus vaccination resistance among members of the Pakistani community because of conspiracy theories being disseminated via social media. The anti-vaccination sentiment is being amplified on social media. According to PEMRA, which promises to publish findings on misleading news, there has been no action against the COVID-19 vaccine faking news. False rumors cannot be stopped, but studying the sources, transmission patterns, and effects on the broader population is possible (Mehmood et al., 2022).

Perveen et al. (2021) demonstrated that vaccine reluctance is a significant problem for Pakistan due to numerous conspiracy theories. For decades, the country has faced a similar reluctance to eradicate Polio. Possible concerns include low-quality vaccines, the clergy's assessment of vaccines as "infidel vaccines," stories concerning active viruses in vaccination, and the misunderstandings that vaccines are Western plots to reduce the Muslim population. Conspiracy theories about the COVID-19 vaccine are widely circulated in Pakistani popular media, reaching millions of people. Furthermore, Pakistani political analysts allege that the COVID-19 vaccination contains Nano-chips that can be used to manage the 5G internet. Another disinformation campaign by Pakistan's ex-foreign ministry accused the United States of developing the Coronavirus in UK labs and transferring it to China for further distribution. They also made similar claims. Conspiracy theories surrounding the COVID-19 vaccine abound on Pakistani social media daily. Defying the truth about the COVID-19 virus and denying vaccination safety and efficacy establishes a public narrative.

The public's misunderstanding of the pandemic directly results from the widespread dissemination of false information about the coronavirus, which makes it more difficult to curb the spread of the disease and convince people to be vaccinated. Many individuals in Pakistan were under the impression that the virus primarily affected people of advanced age. This misunderstanding will cause younger individuals to be ignorant of the preventative actions that should be taken (Zakar et al., 2020). The epidemic was politicized in Pakistan, claiming that there was no disease, but it was all done to benefit the then government of Imran Khan, who is considered a Jewish agent by some religious clerics of Pakistan. The rumors that the government would get a specific amount of money for declaring each death due to COVID-19 further exacerbated the situation. The propaganda strengthened the notion that the government was using the virus to get aid from western countries, and all this drama was staged to help the Imran Khan-led government. Such type of propaganda campaigns was mainly among the rural population.

2.10. Non-serious Attitude of People towards Pandemic

People in Pakistan usually have a shallow awareness level about the issues related to their health. Moreover, the country has a history of not taking viral diseases seriously and showing reluctance toward vaccination programs (Hossian et al., 2022).

A global parameter used to analyze the health behaviors of a community is called the Health Belief Model. The health belief model is based on numerous sub-parameters concerning perceived vulnerability, disease severity, potential benefits of vaccination, and potential side effects. Perceived susceptibility is the level of vulnerability that a person feels from a viral or bacterial infection for oneself and one's family. Similarly, perceived severity refers to the local perceptions of people about the potential severity of the disease. Perceived benefits relate to the mindset of local people about the potential positive outcomes of getting vaccinated. Perceived barriers to vaccination include all the social, cultural, economic, and religious barriers that halt a person's approach to the vaccine. Vaccine acceptance is also greatly influenced by the perceived side effects of the vaccination. People often have multiple insecurities about vaccines, which are also prominent in Pakistan (Hossian et al., 2022).

Many of the above factors in Pakistan contribute to a general approach of non-seriousness toward viral diseases. People do not perceive such diseases as dangerous in the real sense. Due to this approach, they are not rushed in taking preventive measures and getting treatments like vaccination. The same was observed in the case of COVID-19 as well. At the beginning of the pandemic in Pakistan, people called it the ordinary flu. Even the then-Pakistan prime minister said in a public address that covid is nothing more than the common flu (Hossian et al., 2022). Many Pakistani citizens do not view COVID-19 as a severe public health threat because of cultural attitudes about sickness and multiple sources of information (Zakar et al., 2020). People's understanding and attitudes about COVID-19 were examined in a Pakistani survey. People's knowledge of COVID-19 is lacking, especially concerning the symptoms that go along with it. In addition, gender was found to have a negligible effect on the knowledge of the disease. It has been found that there are considerable disparities in people's knowledge and practice of COVID-19 prevention strategies. Even though people were aware of the sickness, they did not take preventative precautions. More than half of those polled believed that the government and opposition were fighting COVID-19 from different angles. In a survey of 212 participants, more than half of the population held misconceptions regarding COVID-19 (Zakar et al., 2020). In order to overcome the pandemic myths and misconceptions, public health awareness campaigns must present accurate information.

In Pakistan, it is unfortunate that people are generally hesitant towards vaccination and showed excellent resistance to COVID-19 vaccination. In a study by

Zakar et al. (2022), anti-vaccine apprehension poses a significant obstacle to vaccination uptake. There are only two countries left in the world where poliomyelitis is still endemic, and both are in Pakistan. It demonstrates the widespread aversion to vaccines, not just those for COVID-19. Various religious, cultural, social, and ethnic beliefs may influence vaccination decisions. Vaccines' acceptability is also influenced by distrust in government institutions and concerns about the vaccine's safety and potential risks. The fear of side effects associated with vaccination is a significant deterrent for many people. They believed that the vaccines developed so quickly might have a range of harmful side effects on the human body, ranging from minor pains at the site of injection to a severe heart attack resulting from blood coagulation. As stated by Fisk in 2021, there are two impediments to vaccine uptake: structural and behavioral. The systematic obstacles that limit a person's capacity to use a service are known as structural barriers. These include the accessibility and cost of vaccines, availability of modes of locomotion, and location of vaccination centers. Their attitudes or beliefs influence an at-risk individual's readiness to receive help. Fear and distrust concerns with healthcare and government organizations, as well as contentment with the services delivered, are among the factors. Public trust is the most significant barrier of all. In Pakistan, the government provided the vaccine free of cost and was available 24/7 at designated vaccination centers across the country. Thus, low vaccination cannot be attributed to structural barriers. Therefore, these are the attitudinal barriers limiting the vaccination drive in Pakistan.

Attitudinal barriers at the local level may be to blame for the low uptake rate. Motivating the population to receive the COVID-19 vaccine has been accomplished in Pakistan through the use of a variety of behavioral and communication strategies (Marten et al., 2021), including widespread distribution of vaccination messages via mobile phone ringtones, high-profile endorsements from government officials, and celebrities, and public announcements in residential neighborhoods and mosques (Dagia, N).

2.11. Religious Constraints on COVID-19 Vaccination Program

Vaccine reluctance is still a problem that impedes vaccination programs and the protection of the population from vaccine-preventable illnesses. One of the most prominent motivations for this reluctance is a belief in the power of religion (Volet et al., 2022). Various religious beliefs somehow contribute to the development of

vaccine reluctance among the public. It is observed in Muslim communities and other religious communities like Catholic Christians, Jews, and Hindus. These objections stem mostly from two religious' beliefs. One belief is that it is unethical or prohibited to use human tissues or cells, cell products of living organisms, and products derived from animals like pigs in synthesizing vaccines. Another belief contributing to vaccine reluctance is that the human body is sacred and pure and should not be contaminated by body cells or tissues from other animals. People also believe that every ailment is from God and only He has the power to heal it (Aspinwall, 1997). (Volet et al., 2022) conducted a study by surveying the existing literature to assess the religious factors resulting in vaccine hesitancy. It was established that anti-vaccine reluctance had been linked to religious beliefs among a wide range of people. This includes people from almost all the major religions of the world.

Among Muslims, for example, the presence of porcine or non-halal substances in vaccinations was the most common barrier. As a result of Ramadan and fasting, many Muslims refused to participate. Indeed, during the fasting month of Ramadan, Muslims must refrain from eating, drinking, perfuming, or engaging in sexual activity from dawn to dusk. According to an investigation conducted in Guinea, many Muslims and religious authorities believe vaccinations are not permitted during Ramadan. For Muslims to keep fast they must not eat or drink anything; nothing should enter the body during the fasting period. People believed that if they got the vaccination, any adverse reactions could break the fast (Peiffer-Smadja et al., 2017). Muslims are among the people who hold a strong belief in karma and the afterlife. It implied that God dictated a person's illness, and that no vaccination should be developed to combat it (Murakami et al., 2014). Similar belief about divine fate and destiny was also observed in populations of Protestants, catholic Christians, and Hindus (Murakami et al., 2014).

Another religious misconception contributing to vaccine hesitancy is the notion that cells from aborted human fetuses are used to produce vaccines. During the early days of the COVID-19 vaccination campaign in America and Canada, various Catholic religious leaders raised ethical objections over vaccine production because of the issue mentioned earlier (Wadman, 2020). According to (Hassen et al., 2022), reluctance toward the COVID-19 vaccine significantly impacted the prevalence of immunization programs and ultimately contributed to the threat posed by COVID-19. For instance, according to a study conducted by the Imperial College of London, large

numbers of individuals refusing or delaying vaccination could raise the death rate by up to eightfold compared to optimal vaccination rates (Olivera Mesa et al., 2022). A similar study also found that countries with large populations that refuse or delay a COVID-19 immunization may see death rates that are up to nine times greater than those of other populations. In the light of existing literature, it has been established that vaccine hesitancy results from numerous individual and societal factors. These include an individual's personality traits, socioeconomic status, religious beliefs, and demography. Religion is essential to vaccine hesitancy in Pakistan and developed countries like the USA. Conspiracy theories and bizarre religious beliefs have also impacted covid vaccination in developed countries.

For instance, in the USA, a survey was conducted in 2020, in which 28% of the participants out of a total of 1,640 people said that Bill Gates wants to introduce microchips into the human body. Moreover, for this purpose, vaccines are being prepared. The ratio was even higher among the Republicans and was 44%. It shows that false religious beliefs and political associations impact the success of vaccination drives worldwide. (Goodman & Carmichael, 2020). A similar situation was also observed in a survey conducted on Sub-Saharan African participants. Out of the 2032 participants, 7.3% believed that vaccines are being administered to control humans using 5G technology (Ovenseri-Ogbomo et al., 2020). In Pakistan, where most of the population is Muslim, religious objections to vaccination for various vaccine-preventable diseases are common (Saied et al., 2021). Many claims that the vaccines' ingredients violate Sharia law and are, therefore, incompatible with their religious beliefs. Malik et al. (2021) conducted a study on healthcare workers to assess vaccination acceptance. It was seen that even among highly educated HCWs in the study, the same findings were reflected, notably among females. However, critical Islamic organizations have publicly stated that there is no such conflict.

Although Khyber Pakhtunkhwa has frequently been singled out as having higher levels of vaccination resistance than the rest of Pakistan, this study found a notable difference in the level of vaccine reluctance between ethnic groups (Malik et al., 2021). However, compared to their colleagues from other areas of Pakistan, our study's HCWs of Pashtun ethnicity were significantly more likely to receive vaccinations. COVID-19 vaccination acceptability among healthcare workers of different ethnicities in the same country has not been studied yet. Vaccine and healthcare worker mistrust has grown due to healthcare disparities in developing

countries like Pakistan, where minority groups may be disproportionately underserved in terms of health resource allocation and utilization (Panzai. et al., 2017). People in Pakistan often believe in supernatural forces and that the cause of the disease is not biological but somewhat spiritual. Due to this belief, they often do not follow preventive measures or standard treatment procedures. Instead, they go to shrines and start prayers (Rahman et al., 2020). They do not believe in the causes of the disease and, because of low literacy, often ignore the severity of diseases (Gannon, 2020). In light of this, a society's sociocultural makeup is critical in determining whether or not preventative public health efforts are successful. For public health interventions to be accepted and implemented, cultural and societal norms must be considered.

Misinformation and strict adherence to religious ideas are among the key issues experts cite contributing to people's lack of faith in vaccinations like COVID19. In addition to misconceptions that the COVID19 vaccine is not halal, according to the Shariah principles, it is suspected that pork gelatin and human fetal tissues are used in the manufacture of the vaccine. A large number of Pakistanis consider the Chinese vaccine ineffective and, because of this, are unwilling to get vaccinated. Many Pakistanis do not want to take Chinese vaccines because of these religious beliefs. Some people do not want to receive the AstraZeneca vaccination because it is produced in India. Regarding the COVID-19 vaccine in Pakistan, the most significant source of such erroneous information has been social media, specifically WhatsApp (Maryam, 2021). Inauthentic information distributed on social media in Pakistan, which has become the primary news source for millions of people, is responsible for the growth of vaccine hesitancy in the country. A poor level of critical literacy in social media has been identified as a factor that has contributed to the spread of information around the country about COVID19 and the preventative measures available, such as immunization (Malik et al., 2021).

The desire for conventional ways of treatment and reliance on spirituality and prayers are other vital factors that inhibit the acceptance of explanations, in addition to a lack of awareness or information and religious views. Vaccine apprehension can take many forms and be influenced by various factors, including a person's age, gender, location, and even the immunizations themselves. Complacency, ease, and self-assurance all play a role. As a result of the minimal danger of disease, vaccination is seen as unneeded by those who are complacent. Confidence in vaccine safety, efficacy, and healthcare system competency is a sign of trust. Vaccines must be

accessible, affordable, and delivered conveniently if they are considered convenient. Vaccination decisions are influenced by several factors, including whether or not a person would refuse, delay, or receive all immunizations. Factors such as the health care system and the larger social and political milieu we live in all have a role to play in this. COVID-19 immunization hesitancy was exacerbated by doubts over the effectiveness of vaccines, their potential side effects, and doubts about the (Saied et al., 2021). In order to achieve the desired results from covid vaccination drives, it is essential to include the entire community in the vaccination campaigns. It is not just about the government and healthcare organizations ensuring the equal distribution of vaccines and proper vaccine coverage. Instead, religious leaders should be involved in addressing the religious concerns of the people related to the issues mentioned above (Marshal, 2021).

2.12. Economic constraints on COVID-19 Vaccination Programs in Pakistan

The COVID-19 epidemic has generated various socioeconomic challenges in Pakistan because of the country's shaky healthcare system, fragile politics, and faltering economy (Haqqi et al., 2021). According to estimates provided by the Asian Development Bank (ADB), the COVID-19 epidemic has cost Pakistan's economy around USD 4.95 billion and resulted in the elimination of 946,000 jobs (Ilyas et al., 2020). In addition, the COVID-19-associated lockdowns could result in the termination of employment for 12.3 to 18.53 million Pakistanis, which would be catastrophic for the already faltering economy of the country (Yousaf et al., 2020). It is noted that unfair distribution of vaccines and improper resources to test the suspected covid cases will create further problems for the country during its recovery from the epidemic. The findings of Haqqi et al. (2021) provide credence to the hypothesis that the actual number of instances is far higher than the figure that has been reported. At first, people in Pakistan assumed that the severity of the effects of COVID-19 would not be as bad for them as it would be for people in other countries such as Italy, Iran, and the United States because Pakistanis have a better immune system and the weather in Pakistan is hot. However, the worry in Pakistan was inspired by the rigorous precautions that were taken for the funerals of those who passed away due to COVID-19 infections. The funerals of these individuals took place without any physical contact or gatherings.

2.13. Mistrust towards West

According to a survey conducted by Gallup Pakistan, only 49 percent of Pakistanis are willing to get vaccinated against COVID-19 (Gallup Pakistan, 2020). The fact that the vaccines were created in Western countries was the primary source of this hesitation. Forty-six percent of people were willing to get vaccinated, but 42 percent said they would instead not take a vaccine developed in the West. Five percent of those polled either did not respond to the question or indicated that they did not know the answer. There were conspiracies that Bill Gates was funding a covid vaccination program to implant microchips in human bodies (Hadid, 2021). It also added to individuals' reluctance to vaccinate against diseases. Pakistanis believe the CIA betrayed Pakistan when they unearthed Osama Bin Laden in Abbottabad using a covert polio vaccination campaign. They think that the West will again do such stuff to harm the interests of Muslims.

In Pakistan, all the above-mentioned sociocultural constraints were observed to contribute to the vaccine hesitancy, confirmed by the literature review of previously conducted studies. Mehmood et al. (2022) conducted a study and described similar sociocultural factors limiting the effectiveness of the COVID-19 vaccination drive. According to Mehmood et al. (2022), Vaccine hesitancy remains a significant threat to Pakistan's public health in these challenging times. As a result, lower-income individuals are less likely to get immunized. The general public's reluctance to accept the COVID-19 vaccination is partly due to concerns about its safety and efficacy, possible side effects, and a lack of faith in the organizations responsible for its development. People's skepticism is exacerbated by the increasing number of deaths worldwide, mental distress, overburdened education and healthcare systems, and insufficient preventative actions. Gallup's COVID-19 monitoring survey found that 49% of Pakistanis reported reluctance about the COVID-19 immunization (Gallup, 2021). It has been shown that 50.6 percent of Pakistanis are afraid to take the COVID-19 vaccine due to the assumption that it can cause different adverse effects, including autism and infertility as well as autoimmune diseases and death (Shaikh et al., 2021). (Mehmood et al., 2022) pointed towards various anti-COVID-19 vaccine conspiracies that are circulating in Pakistan right now. The virus was allegedly created to target Muslim countries so that Jews might take control of the world. It has been suggested that the virus was created in the United States and then transferred to China for global distribution by Abdullah Hussain Haroon, a former Pakistani foreign minister. Others

claim that China created the virus to target the West. Conspiracy theorists tend to be younger, less educated, more politically extremist, and more stressed than those who do not believe in such nonsense (Kuhn et al., 2021). The fact that laboratories working on a COVID-19 vaccine are located in the same region where the virus first spreads only strengthen the case for a laboratory-based origin for the virus (Salali & Uysal, 2020).

The ongoing disaster, which was caused by the wide spread of the coronavirus, is affecting every aspect of life. Vaccines against the coronavirus have been developed to prevent infection with the virus and combat its pandemic spread. Since vaccination may be the only approach to limit the spread of the coronavirus and end its transmission, The World Health Organization (WHO) has already approved several vaccinations, and some nations have begun vaccinating their populations (Biswas et al., 2021). Vaccine efficacy, adverse effects, religious views, and trust in information sources are the most prevalent factors influencing a person's decision to vaccinate. Other factors that can influence vaccination intention include mistrust of the healthcare system. In addition, demographic characteristics such as age, gender, level of education, and geographic region all play a role in determining vaccination intentions (Biswas et al., 2021).

There is a common observation that a conflict is seen in several countries, even in the most developed countries, between individual freedom and measures to protect public health. People argue that mandatory vaccinations are against their rights to freedom of choice, and thus such restrictions should not be applied. While on the other hand, the proponents of mandatory vaccination claim that the protection of public health must be the key priority of the state, especially in situations like COVID-19 pandemic when the disease in discussion is highly contagious (Cultural Perspectives on Vaccination, n.d.). No country is immune to coronavirus, but social and cultural variables that increase public health hazards make it more difficult to combat the pandemic in countries like Pakistan (Hina, 2022). An example of this can be found in a New York Times article from March 26, 2020. As a result, it became clear that to stop the spread of COVID-19, the country's political, economic, and social problems must be addressed (Rahman et al., 2020). There is only one way to prevent a public health disaster in Pakistan, given the country's already-weak public healthcare system's inability to handle emergency health conditions.

The result of these causes is a lack of trust in vaccines among the general populace. In a country like Pakistan, it is essential to keep in mind divergent cultural variables that influence the efficacy of vaccination programs. It is highly recommended that there should be good communication between health authorities, religious scholars, and civil society to resolve the issue of vaccine reluctance in Pakistan (Rahman et al., 2020). The first step in resolving this issue is earning the public's confidence by convincing them that the vaccines are effective at avoiding viral illnesses and do not have any side effects that could harm an individual. The only way to accomplish this is to raise public awareness of the issue. In order to accomplish this, a variety of media, including print ads and podcasts hosted by health care professionals, should air these messages. Influencers on social media can inspire individuals to get vaccinated by sharing their own experiences. All educational institutions should teach students about the significance, adverse effects, and even the varied vaccinations made by various pharmaceutical corporations. Religious and cultural organizations should also be given the responsibility of promoting immunization. It is up to the doctors in distant places with few or no digital facilities to instill a positive attitude among the population. People are more likely to receive their immunizations if they know and trust their local doctors, who are more well-known and trusted in the community.

However, this alone may not be sufficient. A sizable segment of the population vehemently opposes vaccination. In this scenario, incentives can increase the likelihood of adoption. Vaccination facilities in numerous neighborhoods, employer subsidies, and store discounts are all examples of such incentives. Day-to-day activities should necessitate a valid vaccination card. To make vaccinations more accessible, additional small-scale clinics should be created across neighborhoods, rather than relying on a few major immunization facilities. The existing vaccination method, which involves scheduling an appointment through text message, needs to be reworked, especially in rural areas where internet resources are scarce. Local statistical data showing the effectiveness, tolerability, and survivorship linked with COVID-19 vaccinations should be publicly available and reachable by the general public to create vaccine adoption in the general community.

3. RESEARCH SETTING AND RESEARCH METHODOLOGY

This chapter includes detailed description about research setting and research methodology that was employed for data collection while conducting research in Narowal which is in the northeast of province Punjab and capital city Islamabad. The first part of the chapter deals with the locale of the study and is inclusive of administrative, demographic, socio economic and other socio-cultural details. However, the second part discusses the applied research methodology for the purpose of data collection. The third and last part deals with the sampling method and tools or techniques utilizes for targeting, sorting, categorizing or analysis of data. The researcher adopted purposive sampling and selected two geographical locations like Islamabad and Narowal. The researcher chose two different regions to attain diversified data depending on the different socio-economic statuses, education, and cultural background. The researcher chose local people of Islamabad and Narowal through purposive sampling technique and those local people who have different economic statuses, cultural backgrounds, and education level. In-depth, semi structured interviews, participant observation, different tools and techniques, rapport building, and informal discussions have been utilized for data collection and analysis.

3.1. Locale of the study

The researcher chose two geographical regions of Pakistan. One is Narowal a semi urban city and Islamabad a metropolitan city. Narowal is in the northeast part of Punjab, Pakistan. Islamabad is located at the edge of Pothohar plateau at the foot of the Margalla Hills. The researcher selected these regions because of the certain reasons. The researcher wanted to analyze the varied perceptions of the people depending on their different backgrounds and how much the perceptions of people depend on their localities, socio economic statuses, cultural beliefs, ideas and traditions and education level. For that purpose, the researcher chose the regions which were quite different from each other their lifestyles and cultural values were not same. This difference enhanced my interest to particularly choose these locations to have diversified perceptions of local people for COVID-19 vaccination.

Moreover, the researcher had ideas and knowledge about lifestyles and cultures of both cities because Narowal is a hometown of a researcher. I have been living in Narowal until my intermediate then I came to Islamabad for my further

studies, so I had the rich exposure of both cities and knew about the cultural differences that is also the reason I have chosen these two regions for my research too because in particular I wanted to see the difference in the perceptions of people regarding coronavirus and vaccinations because it became very troubling scenario for all. As I knew the differences in the lifestyles and cultures of both cities, so I selected them in order to get diversified data which is an ultimate objective of my research. By following multi-sited ethnography which is a new approach in anthropology I have preferred these two cities. By this selection the researcher shows the concept of reflexivity in her research.

3.1.1. Islamabad

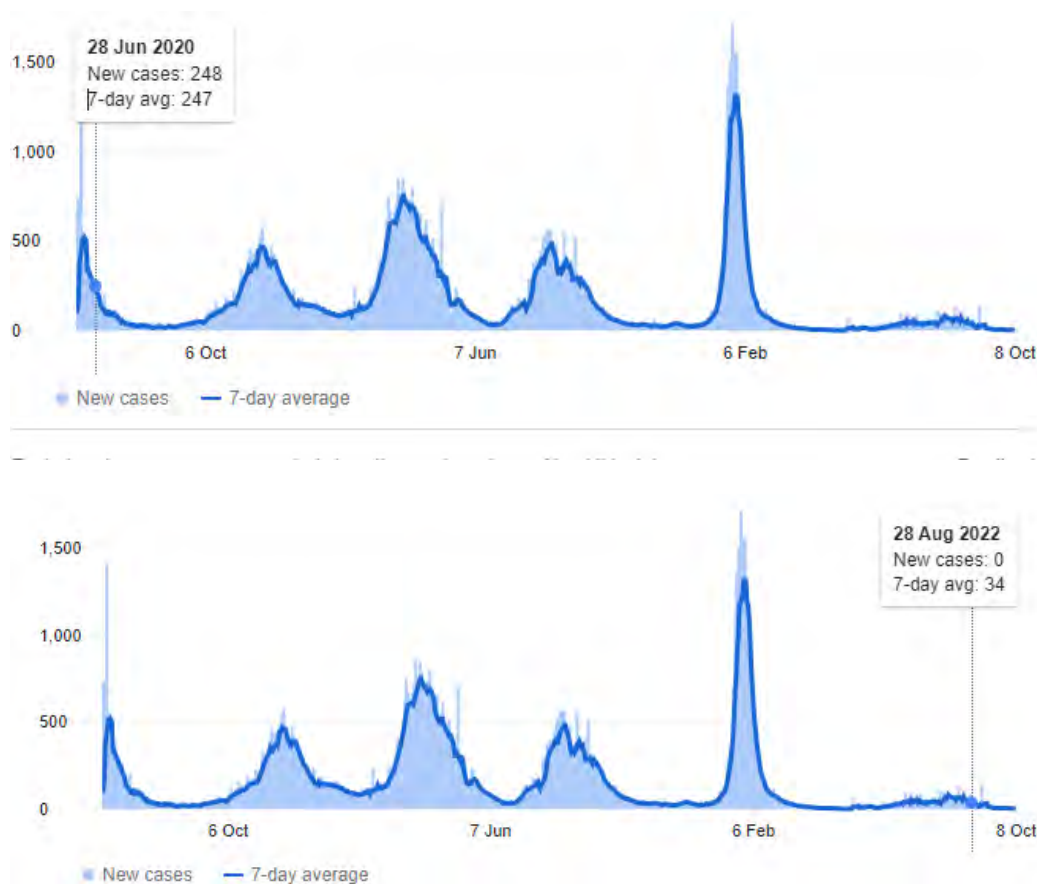


(Source: Google map 2022)

3.1.2 Geography

Islamabad is the capital of Pakistan. It is located on the Pothohar plateau within the Islamabad capital territory. It is the earliest human settlement in Asia. It is located on the northwest of the country on Pothohar Plateau. This area has been a part of the crossroads of the Rawalpindi and the Northwest frontier province in history it has a great significance. Islamabad is a federally administered capital of Pakistan. Among the rank of largest cities, Islamabad is the 9th city of Pakistan. It was built in 1960 to replace Karachi. It is famous for its better standard of living, nature, and greenery. It is a beautiful combination of nature and modernity (Zeidan, 2021).

This study is about the perceptions and attitudes of people towards COVID-19 vaccination in the particular locale; here is a graphic representation of fluctuations of COVID-19 cases in Narowal i.e. a latest update.



<https://github.com/CSSEGISandData/COVID-19>

3.1.3 History

Islamabad is a tidy, roomy, tranquil city with abundance of greenery compared to other cities in the nation. The city's location has a history dating back to some of Asia's first human settlements. Ancient caravans from Central Asia, the vast armies of Tamerlane and Alexander, as well as the first settlement of Aryans from that region, have all passed through this region. Like other capitals, Islamabad has not longest history, like Delhi, Paris, Bagdad and Cairo. After independence, Karachi was the capital of Pakistan. After decade, a military director General Ayyub Khan came into power. He decided to shift the Karachi capital of Pakistan to another city because he realized that Karachi is not suitable for state affairs. A commission went on work to find new location to run administration of the country. Selection of new site was based on beauty, climate, location, and other criteria. The commission selected

location at Potohar Plateau for building a capital city. In 1959 the site for the city was designed and four years later in 1963 the city of Islamabad was opened (Gaur, 2016).

3.1.4 Climate

The Margalla Hills are to the north of the city. Nearly all descriptions of the climate in this region include hot summers, monsoon rains, and cold winters with little snowfall in the hills. In addition, Islamabad is home to a variety of animals, from leopards to wild boars. Climate of Islamabad is temperate and warm. Islamabad is divided in two sub categorizes in terms of climate. These two categories are winter season and summer season. Winter season starts from October and ends in March while summer starts from April and ends in September. January is the coldest month Islamabad with average low-temperature of 2.6 degree Celsius and an average high-temperature of 17.7 degree Celsius. June is the hottest month in Islamabad. An average low temperature in Islamabad during June is 23.7 degrees Celsius while high temperature of around 39 degrees Celsius. November is the driest month in Islamabad where least rainfall occurs, and August is the wettest month with most rainfall. Average rain fall in August accumulates 310-mili meters (Abhinav, 2013).

3.1.5 Population

Islamabad has a sizable immigrant population from various parts of Pakistan, as well as a long history of cultural and religious diversity. There are multiple ethnic groups living in Islamabad. Ancient cultures and civilizations, including the Aryan, Soanian, and Indus Valley civilizations, are still present in the area because of its location on the Pothohar Plateau. Near Islamabad, there is a Gakhar fort from the 15th century called Pharwala Fort, which was built on the ruins of a Hindu fort from the 10th century. The region's Rawat Fort, where the grave of the region's Gakhar chief, Sultan Sarang Khan, is located, was constructed by the Gakhars in the sixteenth century.

The main crops of district Rawalpindi and Islamabad are wheat, barley, maize, millets and pulses. Due to modernization young generation are preferring fast food over agricultural goods, but old generation are still utilizing crops for their survival. The native language in Islamabad is Potohari but Punjabi and Urdu are most spoken by people (Abhinav, 2013).

3.1.6 Castes

Caste is very important in considering people relation and economic status. It is possible only through group identity. Gakhar, Awan, Gujjar, Janjua, Sheikh, Abbasi, Bhatti, Syed and Jutt are common castes in Islamabad. They are also considered as symbol of status.

3.1.7 Occupations

Occupations are associated with men and women differently. Mostly men are businessmen, and some are doing private and government jobs. Females are also doing private and government jobs. Some are housewives and schoolteachers too. The upper middle class and elites are mostly living in Islamabad.

3.1.8 Household structures

The people living in Islamabad have urban settings which include pakka households. Their houses are made up of oven baked bricks and cement. Their houses have different architects and styles. They are not same. Their patterns and size are different from each other. Mostly the houses comprise of kitchen, drawing room, TV lounge and two or three bedrooms with attached washrooms. Basements are also very common in the houses of Islamabad. Some houses have single, double or triple stories too. Some people who cannot afford houses in Islamabad also lives in the rental apartments and buy apartments (Zeidan, 2021).

3.1.9 Religion

Since Islamabad is a city of Pakistan which is an Islamic country, so the major community in Islamabad is Muslims. But minorities also exist like Christians and Sikhs also live there. Furthermore, Muslims are divided into various sects such as Shia, Ahl-e- Sunnat, Ahl-e-hadees etc. In spite of belonging to different religions and sects' people do not bother it too much and live with harmony and brotherhood.

3.1.10 Education

In Islamabad people have basic facilities of education and school infrastructure. Mostly people are educated here due to availability of schools, colleges and universities at all levels. People can easily get education and be educated while living in Islamabad because they are facilitated with many educational institutes. Islamabad has highest literacy rate in Pakistan. 98% of Islamabad's population is

literate. Islamabad has some of the most advanced educational institutes in Pakistan. Students from all over of Pakistan come to Islamabad for education. This city is home to 20 universities including Quaid-i-Azam University, Bahria University, PIEAS, COMSATS, IIUI, FAST and NUST etc. The city is rated as one of the safest cities in Pakistan. Their family structures are both nuclear and extended families exist in Islamabad.

3.1.11 Capital Development Authority (CDA)

Capital development authority has authority to perform all functions required to implement the master plan under capital development ordinance 1960. CDA's tasks are land management, development control and provision of municipal service. CDA works under cabinet division of national government (Abhinav, 2013).

<https://historypak.com/islamabad/>

3.1.12 Narowal



(Source: Google Map 2022)

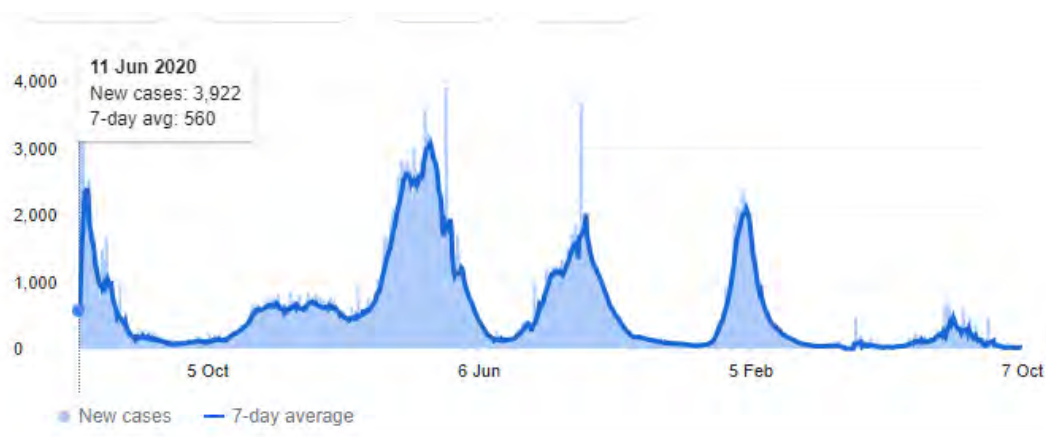
3.1.13 Geography

The Pakistani province of Punjab contains the district of Narowal. The district's capital is Narowal City. The Narowal and Shakargarh tehsils make up the

Narowal District. Zafarwal. Shakargarh Town served as the administrative center for Shakargarh Tehsil, a part of the Gurdaspur District of British India, prior to the formation of Pakistan in 1947. The Shakargarh Tehsil was moved to Pakistan and connected to the Sialkot District because of the Radcliffe Award. Narowal and Shakargarh were separated from Sialkot District on July 1, 1991, becoming Narowal District. The district is bordered on the northwest by the district of Sialkot, on the north by the working boundary of the Kathua district of Jammu and Kashmir in India, on the southeast by the district of Pathankot of Gurdaspur (India), on the south by the district of Amritsar (India), and on the southwest by the district of Sheikhpura. The district has a total area of about 2,337 square kilometers. Shakargarh Tehsil takes up the remaining 1,272 square kilometres, leaving Narowal Tehsil with 1,065 square kilometers. There were 1,256,097 people living in Narowal District, Pakistan, as per the 1998 census, with only 12.11 percent of them living in cities.

The name's origin is a subject of several theories. The most well-known of them claims that it was named after a Sikh landowner named Naro Singh who owned this property before the subcontinent was divided in 1947. About 50 kilometres separate this city from Kashmir's Indian portion. The native delicacy Dahi Barry and the manufacture of rice and cereal are both well-known in this city (MCNarowal, 2007).

This study is about the perceptions and attitudes of people towards COVID-19 vaccination in the particular locale; here is a graphic representation of fluctuations of COVID-19 cases in Narowal i.e. a latest update.





<https://systems.jhu.edu/research/public-health/ncov/>

3.1.14 History

The district of Narowal was established on July 1st, 1991. Although the district's historical background is not documented, there are certain clues and guidelines surrounding its creation according to an aphorism of an important local figure. Hindus from the Aror clan of District Multan converted to Islam under the guidance of Habibullah Shah, a local saint, in the year 1488 during the Sikandar Lodhi dynasty. As instructed by the saint, Nar Singh of the stated tribe met Shah Shamash Tabraiz. Nar Singh, who had the desire to establish a new city, asked Shah Shamash Tabraiz to offer prayers for the accomplishment of his noble goal. Along with stated Nar Singh, Shah Shamash Tabraiz sent his own son towards the direction of Narowal. The tribe of the Nar Singh was stationed at Narowal continuously. Later, the name Narowal came to be associated with the city. Before independence from Britain in 1947, Narowal was a town in the Raya Tehsil of the Sialkot District. When the district of Sialkot was divided in 1991, Narowal subsequently became the capital of the newly created Narowal District. This is where Jagat Guru Nanak Ji is said to have left this world on Assu 23, Samvat 1596. (22 September 1529 AD). It also goes by the name Dera Nanak Baba. This location is serviced by the Dera Sahib Railway station on the Lahore-Narowal line. Nine kilometers separate the train station from the Shrine, which is situated beside the River Ravi. Sardar Popindar Singh, the Maharaja of Patiala, gave Rs. 1, 35,600 for the construction of the current structure. In 1995, the Pakistani government renovated it at a cost of thousands of rupees. It has a large, gorgeous building. Its care is challenging because of its placement next to a forest and the River Ravi.

The Households structures in Narowal are made of both urban and rural styles. In new housing societies all houses are made of urban styles but still in old Muhallas houses made on the patterns of rural areas' houses. The Climate of Narowal is mostly warm and intense warm in the summer season and have only two months of extreme winters that are December and January from February to April and September to November it remains moderate and warm both but from May to August the weather remains extreme warm. Mostly the people are Muslims with sects of Ahl e sunnat, Ahl e Hadees and Ahl e Tasheeh but minorities like Christians and Sikhs also exists there (Iqbal, 2015).

3.1.15 Earliest settlers

The earliest settlers were the Gujjars and Jutts. Pathans arrived later and settled in several locations close to natural water sources.

3.1.16 Clans and Castes

Gujjar, Janjua, Awan, Kashmiri, and Pathan are the major castes.

Jutt Clans: Mekan, Nagyal, Sipra, Thathaal, and Toor; Cheema, Dhamial, Ghuman, Gondal, Hal, Khingar, Khoti, and Khatarmal.

Rajput Clans: Janjua Rajput, Bhatti, Chauhan, Chib, and Sulheri

3.1.17 Professions

Before independence, a considerable number of soldiers enlisted in the British Army; afterwards, many transferred to the Pakistani military, earning the country the nickname "city of soldiers" or "home of martyrs and warriors." Migrant laborers that work in surrounding metropolitan cities like Lahore, Gujranwala, and Sialkot make up a considerable portion of the population.

3.1.18 Food

People want to consume both traditional and international cuisine. The variety of food includes everything from continental Chinese, Italian cuisine, to traditional Lahori chargha. People enjoy eating "saag" and "makai ki rotti" a lot. Fish is also a popular food among riverside visitors. A picturesque view of the river is available from eateries that are situated along the river.

3.1.19 Growth and development

The city is setting the pace for ongoing growth and development. At first, there wasn't a strong market in the city for clothing and other domestic goods. For shopping, people used to typically travel to Lahore, Sialkot, and Gujranwala, but things have changed. Now available in Narowal are the well-known clothing brands including Ndure, Kids Club, and many more. Many educational institutes has been also built like university of Narowal, Sahara Medical college, UET and many other colleges and schools which benefited a lot of students. Students who have to go to Lahore and other cities for their higher education now they can easily get education in their city. It also facilitated the youth of many nearby villages. Students can easily graduate and can also get jobs there. This has also increased their literacy rate because it becomes easier for the students to develop their careers by living in the same city. Moreover, they have a facility of big hospitals there like District headquarters and Sahara Hospital which have advanced technologies and people can get every kind of treatment there. And the chances of taking patients to Lahore became very less which was very common in past few years due to advancements of medications, technologies and equipment. People from this region have emigrated to earn a living, and the most of them have settled in the Middle East and the United Kingdom. These individuals are a significant source of international remittances and support the nation's foreign exchange (Sardar, 2009).

3.1.20 Sports

In addition, the city features a cutting-edge Sports City Complex with international grade equipment and hosts cricket, hockey, and football grounds in addition it also provides houses for players, officials, and staff. In the stadium, regional cricket matches are held. The populace also participates in volleyball, hockey, and kabbadi.

<http://www.mcnarowal.lgpunjab.org.pk/History.html>

3.2. Research Methodology

The methodology involves the use of techniques and methods for the collection of data from first step to final step. Methodology is a tool in research which involves selecting observation techniques, assessing the yield of data and relate that

data to theoretical propositions. Since the research concentrated on the changing perceptions of people towards COVID-19 vaccinations within specific socio-cultural settings of Islamabad and Narowal and the constraints they experienced in those settings, the researcher opted for constructivist approach as epistemological position. According to constructivist approach, truth, objectivity, and knowledge are socially constructed and are subjective on the basis of the experiences of the individuals involved. The meanings are drawn from actor's social experiences in dealing with the pandemic. Since a more personal and interactive mode of data collection was the need of the research topic therefore qualitative research methodology was employed that could help document individual's perception and how they evolved while interacting with different environments. The research approach as well as qualitative research methodology assisted the researcher to explore deeper meaning of people's experiences in different backgrounds to gain in-depth understanding of how people mold or make their perceptions according to their personal experiences within their own socio-cultural environment. In this research the techniques of qualitative research are used for data collection.

The research study is a multi- sited ethnography and makes use of different methods and techniques such as detailed in-depth, semi structured interviews, participant observation, telephonic interviews, informal discussions, help from key informants and through rapport building in order to analyze the in-depth experiences of local people in Islamabad and Narowal. How were they dealing with the pandemic situations what were their feelings and which socio-cultural factors making or changing their perceptions towards vaccination in both regions to get diverse ideas of people? Multi-sited ethnography was first introduced by George Marcus (1995), as an alternate for doing ethnographic fieldwork in more than one geographical location. The term is predominately used to explain the co-existence of more than one physical site within the same research design. It can also be appreciated as an original approach to ethnography (Marcus G., 2011; Boccagni, 2020). The term 'site' is perceived as geographically dispersed population having a lot of difference in their experiences and perceptions towards vaccination which develop interest in the researcher to look for more than one places to analyze the difference in the behaviors, attitudes, and opinions of people for the pandemic situation. The diversity demanded that the researcher leaves behind the bounded field site and travels from one

metropolitan city to semi urban city. The researcher utilized the multi- sited ethnography to make the research information rich and diverse.

The field work was extended to 06 months' time to explore the experiences of local people in both regions how were they facing the chaos and get scared with the increase of death rates in the rapid spread of corona virus and there were no vaccination for it in the beginning and how much they got afraid with this pandemic, which measures they took initially, how were they managing their economic crisis in the lock down situation and how their perceptions being made and changed towards its cure vaccination afterwards, which aspects impacted them a lot whether religion, media or conspiracies. The researcher explores and analyzed all these experiences of the people through detailed in-depth interviews, semi- structured interviews, and informal discussions, gained trust of people through rapport building, assistance of key informants and through participant observations. An effort was made to spend maximum time with respondents to document as much information as possible. Ethnographic research methodology usually involves direct observations of behaviors, conversations with varying degrees of formality ranging from the daily chitchats to prolonged interviews (both structured and unstructured). It also includes detailed work with the key consultants and informants about details of community life. It also employs in-depth interviewing with selective respondents often leading to the collection of life stories and struggles of particular people (narrators) to help understand the phenomenon under study (Kottak, 2014). The research utilized following methods, tools and techniques to achieve the objectives of the research.

3.2.1. Sampling

The first and foremost step was how to choose respondents for collecting reliable and relevant information. Since the focus of the study was analyzing the perceptions of local people of Islamabad and Narowal about COVID-19 vaccination. How they perceived it initially and how their perceptions were changed or remain same with the impact of different factors. Which cultural barriers they have faced, in making their attitudes towards vaccination whether it was acceptance or resistance. Since the focus was on local people of both regions i.e. people of different age groups, educated, uneducated, religious, non-religious, Middle class, lower class, or upper class. So every kind of people exists in a normal community. I have employed **purposive sampling** to collect data which meet my research objectives because

purposive sampling is also called judgmental sampling and focuses on choosing cases on purpose and not randomly. The researcher by using personal judgment found and assessed those respondents who could serve the purpose of the research study (Bernard, 2006).

So in particular fields I have conducted interviews from those people which seem knowledgeable about it and they were willing to give interviews. I have selected respondents with my own judgments while taking care of the hierarchy among people because my purpose was to collect diverse data. People who belong to different backgrounds, different occupations, different ethnic groups so I chose them in order to fulfill my research objective to analyze the perceptions of local people about COVID-19 vaccinations how they were dealing with them, which constraints and sufferings they had to bear during the episode of Corona virus when it was on its peak. I found purposive sampling was most suitable for the research study because by using that sampling technique it was very convenient for me to choose people with my own choice and judgment like locals who are living their lives differently from each other depending on their lifestyles, socio economic statuses, localities etc. which directly matched with my research.

3.2.2. Sample size

A sample of 25 respondents from two geographical locations i.e. Islamabad and Narowal were taken. These respondents involved people of different occupations, different socio-economic statuses, different ethnicities, different backgrounds and different age groups who lives in the metropolitan city Islamabad and semi urban city Narowal. I have taken 12 respondents from Narowal and 13 respondents from Islamabad. I have chosen those people deliberately and on purpose because of their different exposures so that I can have varied data about their actions, responses, constraints and perceptions for COVID-19 and vaccinations. The research was conducted in the period of February 2022 to onwards when the peak situation was over and there was no as such restriction of following SOPs.

3.2.3. Research design

This research is done using qualitative methods for documentation of primary data in the research duration. This makes the researcher to observe, to participate in the study and to be involved in the whole process. The primary data has been

collected through interviews, making of field notes, audio recording, keen/participant observation and photographs from the field. While analyzing final report, these notes and recordings helped the researcher to cross check the data. During the primary data collection, I mainly focused on the ideas and perceptions of local people for COVID-19 vaccinations and which socio- cultural constraints they had to face in the whole situation.

3.3. Data Collection

The data was collected using various methods in anthropology. As I have done multi- sited ethnography this field research was carried in Islamabad and Narowal. I have taken my respondents from both cities. I did not take my respondents from any organization, institution or specific areas of cities because my focus was not on particulars but on the locals living in various parts of Islamabad and Narowal and I did find my respondents with the help of key informants, purposive sampling. First, I analyzed my fields with participant observation and rapport building too then I selected my respondents by taking care of hierarchy and difference among people so that I can meet the ultimate purpose of my research study that is to get diverse data.

3.4. Tools of Data Collection

Research methods and techniques were not sufficient for collecting and analyzing data. Therefore, it was needed to consider the usage of tools and gadgets also. So, I used various tools to collect data and save data. Gadgets, devices and notes were used for this purpose. Data was also kept into record through audio records and photos.

3.4.1. Field Notes

A researcher must note down every important detail and every piece of information. Writing field notes provided an opportunity to discuss events with respondents, as well as other people, during this study. That data was collected from the field was prepared through various methods in systematic way for analysis. I always carried pages of paper and a pen with me whenever I supposed to interview someone, I noted down the comments and arguments of the respondents.

3.4.2. Audio Recording

Audio recording was also an important tool to remember the conversation between the respondents and researcher. Through smartphone recorder data was saved. But for this purpose, the consent of respondent was necessary. Audio recording was not done without the consent of the respondent. I used my smartphone to record the conversation. Some respondents were not in favor of recordings so, their interviews were written down in a diary.

3.4.3. Secondary Data

I used secondary sources for data collection. Researcher read out different books, various studies on internet by other researchers. These readings helped me to focus on those factors which were lacking in the previous research and helped me to make my interview guide and questions accordingly. I have also learned a lot about vaccinations, their different types, COVID-19 vaccinations, and their exact purpose. I have also got know about different percentages about vaccinated and non-vaccinated people and the numbers of people which died and got affected with Corona virus which spread in all over the world. With the help of secondary data, I have prepared myself to take interviews and to interact with my respondents confidently because during informal discussions respondents might ask questions from the researcher too. My supervisor provided me books and articles related to this research. Department library was also very helpful for providing most relevant secondary data; librarian helped me to search data in portable documents forms.

3.5. In-Depth Semi - Structured interviews

In-depth, semi-structured interviews are verbal interactions where the interviewer attempts to extract information from respondents by asking open ended questions. Even though, a list of pre-determined questions is prepared by interviewer, in-depth, semi-structured interviews usually transformed into conversations offering participants to address issues and matters which they feel as important. This method is useful for understanding opinions and emotions as well as for collecting information on diverse range of experiences. They significantly help the researcher by offering a route to partial insight into what people do and think (Longhurst, 2009).

The researcher conducted 25 in-depth semi-structured interviews with the respondents to have detailed information about their survival in this pandemic. i have turned the interviews into conversations somehow and listen to their stories by

developing trust first because it was a very chaotic and scared situation for everyone in the first and second wave and still people dealing with that lots of lives have lost due to the virus and hunger because of lock down so people were being very concerned about this matter and they were willing to talk about it and share their stories with no hesitation. So these interviews proved helpful to get detailed information about their perceptions and opinions about COVID-19 vaccination how they made it and how they changed it and what were the hurdles they had to face during the peak episode of Corona's rapid spread. All interviews were conducted face to face, in multiple sittings.

Interviews were pre-scheduled periodically and systematically after first meeting with the respondents. This saved me and the respondents a lot of time and effort. A list of questions against every objective was also designed to cover all important themes and sub themes identified in the objectives of the study. The major themes identified were the perceptions of local people, Role of media in shaping up their behaviors, role of Ulemmas, Socio cultural barriers and conspiracy theories. The interview also added some supporting questions. Probing questions were also added to direct participants to talk about details that otherwise could have been easily missed. The interview guide served to achieve research objectives.

3.5.1. Rapport Building

Rapport building can help alleviate apprehensions about the researcher and nature of research. Sharing stories about one's personal struggles needs time, energy, space as well as privacy and most importantly willingness. The respondents are not very eager to share their stories without incentives unless they share a certain level of comfort with the researcher.

First step was to identify suitable cases for conducting in-depth detailed interviews. For establishing good relations and understanding with my respondents. I tried to be transparent, honest in my communication, clear, responsive and friendly. It was an effort to put them on ease to talk about their experiences with a confidence for confidentiality. Having a command on both Urdu and Punjabi languages helped me establish a trust with local people because these two languages are common in my locales, so I talked to them in that language in which they were comfortable. So, I did not face any kind of language barrier in my research which helped me a lot to get the

valuable information from the people which I wanted to. People welcomed me their homes and attended me well.

The key informants introduced me to locals and explained the purpose of my visit and meeting. Being proficient in understanding local language was an added advantage. Due to these factors, gaining rapport with the target group did not take much time as anticipated. Because at the beginning of collecting data in field, it was difficult to ask questions from the people but later on due to rapport building it become helpful for me to get reliable data. This research was carried out over a period of six months which were spent by living in 3 months in Islamabad and 3 months in Narowal.

3.5.2. Participant observation

During conducting detailed interviews, the researcher focused to be a silent and keen observer. The study demanded careful capturing of reactions towards specific questions. Some people felt reluctant to talk about it because they were already very scared about the whole pandemic situation and the chaos was created among the whole world because of the increasing deaths. People were afraid with any kind of social interaction even after the peak situation was over they had some kind of reluctance to share their thoughts and opinions about vaccination because initially it seemed hard for some people to accept it because there were a lot of conspiracies around. The ambiguity in the minds of people and element of social distancing which they were following in the whole episode of corona they were little hesitant to interact personally. In such situation non-participatory observation techniques proved to be very helpful.

However, there came such occasions where I have employed the technique of participant observation in a particular research area to study behaviors and responses of people towards vaccination whether they are going for booster doses or not how were they perceiving it and how they talked about it with each other that it was effective for them or not. The technique being foundational to ethnographic research was employed to extract meaning out of conversations they had among each other, with their family members and neighbors. It also helped in validating narratives provided during detailed interviews. It was by the virtue of this technique that changing behaviors of people and perceptions were explored.

A daily diary, separate from field notes, was also kept to note down the impressions of people and daily observations while meeting with my respondents. Staying in the fields and among people while conducting interviews and doing participant observations also enabled me to experience the influence of cultural norms, values and traditions of one's actions and make their perception and behavior about particular situation. This technique gave me great insight about cultural constructs. It enabled me to study in detail about local perceptions towards vaccination.

3.6. Key Informants

Key informants are the people who make sense of the culture or any particular situation for the researcher and can speak knowledgeably about the things the researcher wants to know (Bernard, 2006). The researcher chose 05 key – informants. Key informants helped me building a rapport and trustworthy relationships with respondents and access those respondents who served the purpose of my research study. Following are some brief details about the key informants.

Ms. Fatima khan (Pseudo name), she helped me to find the respondents in Islamabad because she is a local dweller of Islamabad and also became my friend at my graduation time. She knew many people which would be willing to give me interviews and tell me about their struggles, attitudes and perceptions after the outbreak of COVID-19 and their opinions about its vaccinations.

Ms. Attiya Siddique (Pseudo name), she was my neighbor in my hometown Narowal that is also my other locale for study she is a member of census organization who also visits home to home to collect her data about the population of certain area. I told her about my research objectives then she helped me to find the people who were easily convincible to give me interviews and to talk about their survival during pandemic which socio cultural constraints they had to face and how their opinions and views made and changed about vaccination.

Mr. Talha Hussain (Pseudo name), He is my brother's friend who is an active member of Tableeghi Jamaat. He also has family relations with us he knew about my research domain I asked help from him to inform me about Ulemmas because I needed to take interviews from Ulemmas to analyze how much religious perspectives

played role in making up the minds of people towards vaccination. It was necessary to fulfill one of my research objectives.

Mr. Usama Arif (pseudo name), who was also working on some research project in Narowal Punjab. He explained me very useful information about the field and also shared his experiences and observations on the people which proved very fruitful for me and encouraged me to start my research without hesitation. Due to his analysis, I also molded my interview guide slightly accordingly and also added some questions and made up my mind like how to interact first which would be convenient for me and my respondents. Participant observation technique also proved very helpful for me to build my confidence and continue my research.

Ms. Sadia Ibrahim (pseudo name), she is my first cousin also a medical practitioner she helped me to get doctor's views about this whole situation since my concern on locals of both locations. So Local people include doctors too and people of any socio-economic status and of any occupation. Doctors played a leading role in serving the people during this outbreak, so it was important for my research to have doctor's view about Corona virus vaccinations. I have conducted interviews from doctors, and I have explained their views in the 2nd chapter of analysis.

3.7. Informal Discussions

Group discussions created a process of sharing among the participants and me. In lively group discussions, the participants did the exploring and discovering. The researcher and participant both freely exchanged their opinions in terms of informal conversations and talked about relevant topic without hesitation. Before interviewing my respondents, I availed opportunities of having informal friendly conversations with my key informants. Informal discussions also came quite handy while choosing good responsive participants for the study as it was during such discussions, people were started talking about their genuine responses and opinions about COVID-19 vaccinations how they perceived it how their cultural barriers impacted on them.

Although managing such discussions is a task as the participants at first were more interested in the researcher's own life story and perception regarding particular topic. After gaining trust from the researcher, respondents started sharing details or opinions about themselves. At such time, I also became an active participant in the conversations and answered their questions with honesty. The informal discussions

have played a vital role because in this discussion the researcher listen one more unique story from the respondents and the respondents were deliberately and willingly started sharing all of their struggles, survivals during COVID-19 and opinions about vaccination and on which myths and conspiracies they believe or not. Informal conversations also gave a great space to respondents to share their thoughts without any fear and hesitation and the researcher is not your enemy and their responses to me is not going to harm them in future in any way. Because I have developed trust on them and shared my own stories too, to eradicate their reluctance and hesitancy so that they can talk about it freely and give me responses with honesty. Which happened in the same way and informal discussions proved very helpful for me to validate my data.

3.8. Data Analysis

In this research, I have employed the method of thematic analysis. I did not use any software to analyze my data as this study focused on micro-level which is typical in anthropology. I have conducted detailed and semi-structured interviews through participant observations, informal discussions and rapport building to have in-depth data on making and changing perceptions of people towards COVID-19 vaccinations. And the data which was conducted through these methods I have made certain themes for them. By focusing my research objectives too, I deducted the similar responses from interviews and explained them which are relevant to my research. And the responses which were little altered and appealed to me in a different manner I have coded them too. Moreover, I have conducted some case studies and mentioned them in detail in their suitable themes.

3.8.1. Ethical Considerations

Ethical consideration includes the dos and don'ts for a researcher while conducting the research study. The researcher needs to be mindful and considerate towards the potential effects and impacts of research on the respondents therefore confidentiality and anonymity of the respondent came across as most significant ethical consideration. To ensure privacy of respondents, the initial alphabets of their names or at times pseudo names have been used while quoting important conversations between the respondent and researcher. Prior consent of the respondent was also taken before doing audio recordings of their accounts and discussions. I have interacted with my respondents in their local language so that they can feel

comfortable and do not hesitate while conversation. So I took care of every research ethic while conducting my research which developed trust of respondents on me and they shared their experiences, stories, histories, economic statuses, cultural barriers with zero hesitation and cleared their perceptions for COVID-19 vaccinations openly.

All the interviews were recorded by an audio recording tool and writing of field notes. Later, the recorded interviews were transcribed. After getting a written copy of the data, I have separated research data into three categories based on my research objectives. The categorized information was later divided into various themes and sub-themes with relative case studies. After organizing data into themes, all the themes were presented into cohesive manner. As interviews contains a lot of unnecessary information, during the process of making themes, all irrelevant data was excluded.

3.8.2. Problems encountered

While conducting research, I have faced certain difficulties. As this was the period of right after the peak of COVID-19 pandemic. People were used to follow the precautionary measures like avoid physical touch, hand shaking and social distancing etc. So they were bit reluctant initially to give interviews and interact with me personally. Moreover, as my concern was on local people i.e. people of different age groups, class, genders, and professions so it is hard for me to interact with my selected respondents directly and interview them. I got successful with help of key informants. People were afraid to talk about vaccinations as they were thinking that it might have negative impact on them if they say anything against vaccines. Because government was forcing people to take vaccine doses those days. So, I had some problems while interacting with my respondents as they were hesitant to speak up initially. But I developed trust by using methodology techniques though rapport building and informal discussion and made them free to respond. I did not face any difficulty for going on fields because I chose those regions where I live Narowal which is my hometown and Islamabad where is my university located.

3.8.3. Limitations

This phenomenon is ongoing, and the current results are preliminary and indicative and there is a need to do more researchers on it. Socio-cultural constraints prevail a lot in a culture it is not possible to summarize them in a single study. Due to

multi-sited ethnography its representatives are not much authentic. As these sites have selected according to the researcher's own understanding where she can get diversified data. But there could be other sites too which could provide more diversification. And this study utilized a sample of convenience too. Moreover, Perception is like moving targets they made or changed with time and due to socio-economic changes, it never remain same, it is an ever-changing phenomenon. Perceptions can give ideas but the results are not decisive, and the building of perception depends on specific cultural ideas, surroundings and environment so it varies from person to person. And being a female researcher could not conduct in-depth detailed interviews from Ulemmas to know about the religious perspectives in this matter she preferred phone calls to take interviews from them.

4. Perceptions and Conspiracies about Vaccinations

The chapter addresses the first and second objective of the study and explores the general perception of people towards COVID-19 vaccination. It records the varied perceptions and conspiracy theorist's views about vaccinations. It tries to understand how their perceptions are created and determines the similarities and differences among local perceptions of two different regions.

4.1. Knowledge about Vaccines among people

In initial days of my research, I found that people have great ambiguity and hesitation in their minds related to vaccines' advantages and disadvantages. For some people it is a western propaganda and for some people it is cure for the virus COVID-19. They did not have actual knowledge about vaccines like what are the vaccines what is the importance of vaccines for certain virus. People are following or unfollowing the vaccines by looking at their peer groups or relatives and friends. Therefore I realized that it is necessary to find out the opinions, perceptions and knowledge about vaccines first among people. Because their perceptions and thoughts about vaccinations changing gradually.

“Local people here commonly have same perceptions about vaccinations. They believe on all the myths which have been raised for the COVID-19 and vaccinations. They think this virus has been deliberately spread among people it's just a normal flu and fever. Doctors are injecting them with wrong injections which are causing their deaths. This is totally a western propaganda, America wants to kill people. There is no reality in the existence of this virus and vaccinations are very harmful for the people it causes certain body changes in people it causes infertility and disturbs female's menstruation cycle. Moreover it causes deaths after two years of injection with heart attack. Some people believe on it somehow they accept COVID's existence but they said it's easily curable only media has created a great hype among people otherwise it's not that much dangerous”. Explained a key informant who was also working on some research project related to vaccination in Narowal.

This opening statement clarified the things. In Narowal Punjab people follows most of their traditional ideas and myths related to COVID-19. And people express their perceptions about their beliefs related to vaccinations whole heartedly and talk about it openly that they do not accept COVID-19 and vaccinations. They do not follow any SOP's given by government and media is spreading only false news there

is no reality in it. They can treat their people with regular medicines and with home remedies. There is no need to inject vaccines for the cure of this normal flu.

In Contrast in Islamabad people usually follow SOP's to protect them from COVID-19 and there is no hesitation among them for vaccines. They believe that the pandemic is real and there is a breakdown of severe virus, so they are more after about its cure and inject vaccines and their 2nd doses and boosters without any hesitation. They don't believe on the myths and consider them as false rumors spread by traditional people. There is a great terror of this virus among them so in general I observed less or no hesitation regarding vaccination among local people of Islamabad.

4.2. Addressing Vaccine Hesitation

During informal discussions, group discussions and interviews it would be easy to know more about people's thoughts and their hesitation rate about vaccines. There is a difference in the opinions of both regions. For some of them it is not a severe virus and not taking it seriously and has multiple opinions about vaccination. But some people taking it a serious illness and have zero hesitation towards vaccination.

One of my respondents spoke.

"I find vaccine best cure for this virus I had no hesitation for vaccine. My parents and friends encouraged me to get vaccinated. I heard from some people that it's governmental planted propaganda, but I did not believe on it. It is okay to vaccine us for some acute/chronic disease".

People's ideas and perceptions varies region to region and generating new opinions with the passage of time but one thing is quite common that they have fear up to some extent for the pandemic but it's ratio varies. Some people are very conscious and follow all the precautions.

Another of respondents told;

"I find vaccine unsafe I have seen many people got sick and have severe fever after injecting vaccine. No traditional values and myths created any idea in me against vaccine. I felt personally that vaccine is not safe it contains that kind of medicine through which person dies after 2 years because in my opinion it is a western secret conspiracy and you all people will see vaccine's serious consequences will going to happen in future"

Most of the people in Narowal (rural background) with low education level usually have the same opinions about vaccination and they feel reluctant to get vaccinated. According to them if they are doing it it's only because of the pressure and restrictions of government on them. Otherwise, they are not intended to do it.

One 35 years old respondent shared;

“I find it safe but not much believes on it. In my opinion a person has to die in one case or other so I thought I should go for vaccination if most of the people encouraging it. Initially I believe on traditional believes related to it that it is a normal flu and can be cured with regular medicine and home remedies and I got resistant towards vaccines but still I have an ambiguity in my mind that whether it is safe or unsafe”

Initially I found hesitation for vaccines among local people of both the regions but gradually people's perceptions and views getting changing like in Islamabad their hesitation minimizing due to increasing rates of deaths due to COVID-19 and how much people are suffering due to this virus and the people hunted by this virus dying in a very miserable conditions and due to the approval of vaccine's efficacy and safety people did not feel hesitation anymore then they are started looking for 2nd dose and boosters eagerly. But some people's perceptions and thoughts remained same during this period. The people in semi-urban areas and in rural areas of Narowal did not agree to vaccine's efficacy and continue to believe on conspiracies against vaccinations.

4.3. Myths and misconceptions about vaccinations

In Narowal there were a lot of myths related to COVID-19 and vaccinations in the minds of people. They associated several misconceptions with vaccinations like it contains some Nano-chips which record all the information of your personal life. It creates infertility among women and also disturbs their menstruation cycle and the person will die after 2 years of vaccination. Pregnant and breastfeeding women should avoid the vaccination and the people who have heart problems, diabetes or other kinds of diseases should not use vaccination. Some of them said it's particularly propaganda against Muslims. The vaccines are hazardous and they are intended to kill Muslims and make them infertile.

A 25 years old respondents expressed;

“I have been so much pressurized by my relatives and peer groups that I should not get vaccinated because it contains some secret chips which would be stealing even my personal information and I will die after 2 years and I got so much afraid and felt very hesitant to be vaccinated”.

The multiple opinions about vaccinations have been seen among people and it has a great ratio in Narowal and a lot of stuff on social media against vaccinations also slightly discouraged the people of Islamabad but they do not have much believe on the traditional ideas and myths but as I have seen the perceptions about vaccinations changing with the time now after the pandemic is over or there is less number of corona patients the behaviors of people also change towards existence of COVID-19 and vaccinations.

One 40 years old respondent replied;

“I have seen people who are injecting vaccines and who are not injecting vaccines both are dying. Initially I got so much afraid with the increasing number of corona patients and their deaths on mainstream media but gradually I realized media is creating only hype among people. I think maybe the virus has come but now it seems like fakeness and all drama deliberately created in the world and their creators must have high political propagandas behind it”

Many of other myths are in the minds of people that vaccines weaken the immune system; natural immune system is stronger than the immunity developed by the vaccines. Purpose of making vaccines is to making money only and to develop a behavior of using more medications among the people and this very harmful for the children and infants that too much injection of too many vaccines in children can saturate the child’s natural immune system. And the formula of vaccines specifically made to develop other diseases in the body. Moreover, a female can produce only girls after vaccination and girls might have some chances to grow beard after vaccination. Details about these myths and misconceptions will be discusses in next chapter.

4.4. Pandemic: A Deliberate Attempt

Most of the locals in Narowal think that COVID-19 is a deliberate attempt and purposefully spread among people. And those who break this virus among people

have a serious and very secret purpose behind it. They want to minimize the population and especially among Muslims and the vaccinations inhibits it's the population growth and to lessen the Muslim race.

One respondent shared.

“The virus is a deliberate attempt of Jewish people, western people and non-religious people and vaccinations is totally a death for the people. It is like a poison which would gradually lead a person to death and people are innocent and unaware of it”

The people in Islamabad are relatively less against vaccinations or they are in favor of getting vaccinated, but some bring of them has been observed to bring changings in their opinion and perceptions with time.

As a respondent professed.

“Corona Virus has created a lot of destruction. Due to pandemic Lock down and other restrictions has destroyed a lot of businesses. I believe this pandemic is real but this is not that harmful there shouldn't be these kinds of restrictions which affected economies a lot. I have faced so much loss in my business too”.

Most of the people were so much seemed tired, frustrated and irritated because of the lock down issues and the governmental restrictions for vaccination and their 2nd doses and boosters made their lives so miserable.

Another respondent assured.

“I believe that COVID-19 break through is not deliberate attempt it is real but the vaccines they are making I do not believe on them 100%. I do not think that they are that much reliable and going to be affective against this virus and gradually I have started thinking that it might not be real I am not 100% sure about the existence of this virus now”

Thoughts and perceptions of people regarding the existence of COVID-19 varying accordingly in Narowal people mostly believe that this pandemic is nothing but a conspiracy of the enemies only but the people in Islamabad who are educated and some knowledge related to medical field too do not think as such that it's a conspiracy they genuinely believed on it butt now they are seemed more frustrated and irritated now and have little bit confused statements regarding COVID-19 and vaccination due to Lock down and circumstances because they are facing great

challenges in their businesses and income sources now they just want to restart their everything without caring about their health issues. Daily wagers have their own story their even survival has become a great challenge for them.

4.5. Conspiracies about Corona Virus and Vaccines

Since the COVID-19 has started it has become a great challenge for the people to accept it and bear it. Because it was a sudden break-through on the normal lives of individuals. It has started from the Wuhan city of China so many of the views of the people were that virus is just a conspiracy of America against China to decline the economy of China because China is progressing by leaps and bounds and going to add in the core countries of the world and due to strong alliances with Pakistan and with the project of CPEC (China Pakistan Economic corridor) it's going to be the 2nd superpower of the world. Some of the views that virus is a commutative propaganda of non-Muslims like Americans' Israelis against Muslims to defeat and destruction of Muslims. People also say that it's a conspiracy of some secret societies (Illuminaties) of the world to take control over the entire world and to minimize the population from 7.9 billion to 3 billion. Others say that Jews did all that and deliberately spread among the people to take power from developing countries, so they become powerful enough to rule over the world because Israel was neglected and isolated from all other countries of the world.

4.5.1. Case study

A Vital case study of a person, who is educated but has critical thoughts regarding Corona Virus and vaccinations and gave his arguments with logics. A detailed interview has been conducted from him. His name was Haris Khan. He has given me a lot of stuff online. He has shared tweets of different conspiracy theorists to support his argument. Different videos against vaccines he has shared. He was trying to convince me against vaccines. According to him this COVID-19 is not as lethal as media is portraying. It's just like a normal flu. Vaccines have serious side-effects like it destroys the body's natural immune system and badly affect immunity to fight against diseases moreover it manipulates the MRNA and DNA. It is an international political propaganda in which some elites like World Bank, IMF, Bill gates, World health organization (WHO), and pharmaceuticals companies are involved too. And some secret societies which are hidden, and a lay man cannot have any idea about them basically to minimize the population up to 3 billion. He says, "*The same people*

who think the earth is over populated are saying that they want save lives by vaccinating everyone on planet” These people are about to fulfill year purposes and that’s why they have created this pandemic to kill people and then discovered vaccines to kill more in the safest ways.

He says that 95% of the conspiracies against all this dramatization is true. There is a number of people in America and France too who are protesting against vaccination. Many of the people got influenced by these kinds of stuff and became doubtful on its existence. He said in my opinion people are forcefully injecting vaccines or they got afraid of this pandemic they could not found other way out to protect themselves that is why they are injecting vaccines. It is a capitalist approach of the pharmaceuticals companies just to increase their consumption rate they got involved in this huge propaganda to meet their needs. He said that he did not follow any mainstream media because I knew that they are creating unnecessary hype among people I have researched on it and did not follow only that stuff which WHO wanted to imply. And in my thinking, there should not be any enforcement from the government to get vaccinated it should be the individual’s own choices. And I believe that people who are not vaccinating and reluctant about it have proper knowledge or they wanted to have some useful source of information regarding vaccines. I have cross checked it has become a serious problem among people after this breakthrough if they have any other serious illness or he/she is a patient of chronic disease they feel reluctant to go to the hospitals and to consult with a physician because they are afraid, they might diagnosed symptoms of corona virus and prescribe them a COVID test. According to him this whole situation COVID-19, vaccines and their multiple types are nothing but just a drama and fabrication because it’s just like a normal flu, fever etc. And critical thinkers have more knowledge about it rather than who are following blindly.

Lack of trust on Government also makes some people believe that it’s a fabricated story there is no reality in it. Because government cannot do anything for the welfare of people. They made alliances with other countries and brought this pandemic to our country deliberately and got money in return just to fulfill their illegal needs or if there is any reality in this than they are creating false hype to get loans from other countries. Some people are on believe that doctors are involved with government policies, and they are injecting poison on the name of vaccination to kill

people That's why people faced so many difficulties in getting medications and their regular checkups. They have avoided visiting hospitals and clinics and setting their meetings with doctors online. People lost their trust on physicians, medical practitioners and doctors too just because people were dying within no time, and they have started believing on the conspiracies and due to lack of trust on the Government. They believe that they are doing this to increase death rates and to exaggerate their number in order to get aid and loans from other countries and to increase their bank balances. People also believed that the bodies of Corona patients also being used for organ trafficking and after using their bodies they declared them as dead without treating them.

Some conspiracy theorist's views which I have seen online regarding vaccines. In different tweets (on social media) people say that "People get sick from millions of diseases, none of them were covid, but they falsely inflated the numbers. They declared pneumonia and flu as covid" More than half of Unvaccinated Americans say Nothing will change their mind about getting the jab according to the results, of a poll in America which have shown on social media. Some social media's noise also says that it takes 5 to 10 years for the side effects to show as it has seen in the past. They said it took 5 years for the connection between thalidomide taken by pregnant women and the birth defects and miscarriages to be linked to the drug. Meanwhile, it remained an estimated 20'000 babies and killed 80,000. So they are ponying out with an example that COVID vaccines also going to show their severe side effects after 5 to 10 years and it's going to be worse situation and people will be killed more in the future if we continue to takes vaccines and follow them.

One of my respondents who belongs to Narowal and a worker at superstore, when I asked him about his perceptions and opinions regarding COVID-19 and vaccination. He said "ye sb bakwas hai" According to him there is no any existence of COVID and vaccinations. These all are fabricated stories I do not believe on them I will not vaccinate myself in future. Moreover, I will try to stop my children from being vaccinated too.

4.6. Migration of people and Corona Virus

Many of the people perceive that Corona Virus is coming in Pakistan through the migration of people. People who are coming in Pakistan bring corona virus along with them. This virus is highly contagious and spread among people easily from

different kind of contacts. Some people associated it with the intake of food. The people who intake the food like pigs, dogs, different insects, and that food which is haram in Muslim's religion could be possibly the reason of its emergence and the people in China have high intake of these kinds of food that is why China was the country from where this virus broke and when the people of china visit different countries than the virus spread all over the world. Some of the views were that Chinese deliberately did that because they want to defeat the Americans and weakens other countries, to take control over the world and to become a superpower. Some of the people started bullying the Chinese people all over the world. One of respondents said;

“In my university there is a lot of Chinese studying during the period of its high break through people felt reluctant to meet Chinese students and they have even started avoiding to greet them it was a hard time for Chinese to survive and one of my friend he is studying in Hungary he also told me that whenever people saw Chinese people there they started calling them ‘corona corona’ and it was great embarrassment for the Chinese”.

Moreover, people anticipated other reasons that people who do not take care of social distancing and gather in a particular place closely e.g. in religious rituals and in the possession in Iraq where people did not follow any precautionary measures hugging and greeting each other, making a social contact without any hesitation and when they travel to Pakistan and other countries than it becomes the cause of its spread so rapidly.

4.7. Anti-Vaccine Beliefs

People who have anti-vaccine beliefs say that vaccines are not proper cure for the COVID-19. They do believe on the corona virus, but they do not believe on its cure like vaccines. According to them vaccines which have been made are not effective against COVID-19. Companies which are making those vaccines do not know exactly the virus. They are just making them to fool people and to increase in their consumption rate so they can take advantage from the situation and sell their products on the name of vaccines. People are blindly following them and becoming the victim of these pharmaceutical companies which are just being benefitted from the situation and developing themselves economically. They say that these vaccines are even harmful for the immune system of a person and actively causing autism (auto

immune diseases) and also making teenaged Muslim girls infertile. And the people who are already a patient of some chronic or acute disease can die so quickly after its injection. People have a lot of confusion and ambiguousness in their minds regarding from where virus came. How it transfers? How is it spreading so fast? Why are people dying so rapidly? Which measures should we take to control it? Because of a lot of these questions there comes another reason in the minds of people that maybe virus came from the imported goods that Pakistan is an underdeveloped country and it is hard to fulfill all needs and consumption of people with only country's products that's why there is a common trend in Pakistan, we import the used things from other countries like i.e. concept of 'Landa' in which people who cannot afford the first hand things from markets and cannot buy from local brands than they go the 'Landa bazar' from where they can buy the 2nd hand imported from other countries at a relatively lower price and can fulfill their needs. Those goods may involve clothes, shoes, sweaters, caps, bags, socks and many things of a daily use. So people find useful and very affordable to shop from 'Landa bazar' but since during the episode of pandemic social contact and any kind of social involvement is prohibited so people got suspicious about shopping from there they think that these goods might took corona virus with them and if we use it we can be tested positive from the virus and maybe the other countries deliberately sending these goods to us that when we use it the virus caught us. The people who are still using these goods and bringing them to their homes it becomes the main cause of a virus spread in the 2nd phase because in winters people mostly shop the goods from this bazar.

One of my respondents discussed.

Since the COVID-19 has started I strictly followed all the precautions and SOPs, avoided social contact because I got so much scared, the virus is very severe many of the people are dying on the daily basis due to this outbreak I cannot take any risk that's why even I have started avoiding 2nd hand goods which I used to shop some time before. Initially I did not believe on this it was like a normal flu and fever for me but when my brother's friend tested positive his symptoms and condition scared me so much, he was also a diabetic patient and aged person and the virus attacked them so badly that's why now do follow all the SOPs. I believe on the existence of this virus because viruses have also come in the past. But I do not believe on its cure which pharmaceutical companies are making these days the first dose, the 2nd dose and the

boosters I believe they all are useless they still could not find an appropriate vaccine for the corona virus they are just randomly making some vaccines and presented them as an antidote for the virus. I do not want to vaccinate myself and my family but I would be following all the SOPs like social distancing, avoiding social contact, wearing a mask, usage of sanitizer etc in order to get protected from corona plus I'll be using home remedies like kehwa, lemon pani etc to boost my immunity”.

The anti-vaccine believers associated many other life activities and other political problems of the world with corona virus and vaccinations too, like the human rights violation racism etc. Some people also suspects that many of the blacks in America taken as subjects for the vaccines experiment on them and Africa is being used as testbed for the vaccines' experiment in the past and now too in the episode of corona Africans also became victims of the experiments again. And the alliances between the pharma industry and Government allegedly working for mutual benefits behind the scenes just to develop themselves without considering what they are producing or these vaccines would really be beneficial for the people or not. Another suspicion on the technology that 5G and COVID are linked together and the faster speed of 5G have a connection with COVID and its electromagnetic waves from the transmitter towers have caused the virus to spread rapidly.

4.8. Conclusion

Perception of the people for COVID-19 and vaccinations changed rapidly their first perception and opinion is different than according to the fluctuated situation they make up their minds. This behavior is seen mostly in Narowal among both educated and non-educated people. These people have a lot of ambiguity and confusion in their minds regarding this situation they are even doubtful on the existence of virus and the efficacy of vaccination. Statements of people were really confused. Some of them deny both corona virus and vaccinations. Some of them deny vaccinations but believe on the existence of covid. But mostly their perceptions are ambiguous and follow myths and traditional ideas. They say that they do not have proper knowledge about it or some of them are not even willing to know about more because they totally think that it's just a western conspiracy against Muslims. In contrast the locals of Islamabad mostly believe that it is a real breakout, it is very dangerous for all the people and are willing to vaccinate them instantly. Some people who deny it over here, they do not calling it absurd by following traditional ideas and myths they give

logical arguments and proves by doing certain kind of research as one of the case study I have mentioned above, But their ratio is less as compared to the perceptions of people who believe on it and consider it as real pandemic and following all the precautionary measures, vaccinating themselves in order to not become a patient/victim of this virus. And overall people are willing to know about the whole situation more and are more after proper authentic and accurate knowledge. Because some kind of ambiguousness and confusion regarding COVID and vaccinations also have been observed among them.

5. Role of Media and Religion in shaping up the Attitudes of people towards vaccinations

This chapter addresses the 3rd objective which is about the media's role in shaping up people's attitudes towards vaccination and how their perceptions got influenced because of mainstream media's and social media. It further explains what are the perceptions of Ulemmas towards Covid vaccination.

5.1. Media and COVID-19's peak

Media have played an immense during the whole episode of corona virus. Most of the people got to know about the pandemic and severe outbreak through mainstream media. How much the virus has spread in all over the world? From where it came and through which activities it is spreading rapidly. Media has shown how the numbers of deaths were increasing on daily basis and kept people scared and alert all the time. People were getting scared after watching any news channel. Because there was a complete noise regarding corona virus on almost every TV channel, news headlines, talk shows and popular articles were only reporting this issue. Today it's an era of media; maximum people of the world have awareness about media, fond of media and like to watch TV channels. When every single News channel has started reporting about this particular issue than the information regarding this outbreak has reached to almost every corner of the world. People got awareness through it and it has created a complete chaos among people. Initially there was a complete confusion among people that how to get rid of this pandemic. Pharmaceutical companies and many medical specialists have started working for the cure and antidote of this virus but it took time to make vaccines against this virus because it was a very sudden attack on the world. People did not even think about it and were assuming that it is only like a normal flu initially but when the symptoms and other illness has increased in the body and people started dying because of only assumed normal flu than the seriousness of this virus needed to understand and it came as COVID-19 in front of everyone and become the reason of that kind of destruction on each and every aspect of individual's life one could never think of it in this contemporary era. It has caused severe loss in national and global economies. Industries factories had to close due to the severe lock down; unavailability of resources, labors, slowdown of production, transport issue, shortage of raw materials and many other issues had become major

reasons to the downfall of economies. Due to closure of educational institutes students have faced a great loss in their proper learning.

According to some of my respondents from Islamabad they got to know about the COVID-19 outbreak and vaccinations through mainstream media. Media was the main source for introducing this situation to them and their family. And they got so much scared, initially it was hard to even believe on it but when the pandemic has reached to the horrifying level then they started taking some medications, home remedies etc. suggested by their relatives and friends and started following all the precautions and SOPs which media has suggested them like wearing a mask whenever go outside, wash hands frequently, use of hand sanitizers, avoid social contact (hand shaking, hugging, social distancing etc.), maintain a social distance up to six feet, avoid big gatherings, ceremonies, prefer outside side events etc. They and their families strictly followed all the precautions and have zero ambiguity in their minds regarding its existence. This pandemic came like the pandemics came in the past. When vaccines introduced as its cure, they all vaccinated without any hesitation. Because media was continuously telling them what to do and what not to do to save their lives because it was spreading so fast and everyone got panicked. And they don't think that media would portray and present this outbreak to this extent if it was all a drama”

Many of the local people do not think twice and critically upon mainstream media's content. Because according to them any news and every occasion they are showing us is true there is no chance to spread false rumors on media because media is a big industry and if they would do it then they will be caught. And it's an age of technology we all follow media's streaming a lot and if they start doing these unethical acts then we could never progress. They believe that they might add spices to any news to increase views and attract viewer's attention, but it cannot wholly be false. Moreover, in the case of COVID-19 if some people think that it's a complete propaganda then they must think that to run propaganda up to this highest level on the world's media and mislead a people globally for particular interests then who are running it, would have needed a great time and resources to organize and plan this.

5.2. Social Media a big source of conspiracy

Social media has played a significant role to spread information of COVID-19 and vaccinations whether they are true or false. People used different digital platforms

like Twitter, Instagram, WeChat, Tik Tok, WhatsApp, Facebook, Snapchat on daily basis for this purpose. Everyone was sharing content regarding his own level of understanding for this pandemic. But specifically, people used social media to share their ideas which were against COVID-19 and vaccinations. A lot of conspiracies ran on different platforms and many conspiracy theorists were talking on twitter and sharing content which were not in a favor of COVID-19 and vaccinations. Some of the tweets directly denied the existence of COVID-19 that it is nothing but just a normal flu and its founders exaggerated and took advantage of the situation for their self-interests and made people fool by calling it a corona virus and created unnecessary chaos around the globe and they made further policies to take control over the world by making vaccines. Some of the people were accepting that it is virus which is hazardous, but they were sharing their views against vaccinations that they made to kill people and developing abnormalities among people and to weaken body's immune system etc. I'll quote some tweets here

“Family of marketing executive, 45, who died of a stroke caused by AstraZeneca jab say she is ‘dismissed as collateral damage’ as they fight for \$120,000 payout. (By Jack Wright For Mailonline, 18 March 2022 at 17:00).

“‘WRONG ALL ALONG’ covid death figures may have been completely wrong due to poor statistics, COVID death figures that led to costly lock downs and national panic may have been completely wrong, study claims” (By Chris Pollard 19, March 2022).

“Paris is in revolt against forced vaccinations, but the mainstream media is censoring all this” (By Zaid Hamid) he added again “The Georgia stones clearly give out their entire plan of bringing the earth population to 500 million from the present 7 billion, This is the 6th generation world war which is going to kill more than the entire WW1,2”

“Isrealis who had an infection were more protected against the delta coronavirus variant than those who had an already highly effective COVID-19 vaccine” (By Meredith Wadman).

“Remember when the ‘conspiracy theorists’ told you that PCR test were fraudulent and everyone that was testing positive with no symptoms were not actually sick, and it was meant to justify lockdown?” (By Candace Owens).

These were some of the tweets from many which have shown their direct rejection of this pandemic and vaccinations. They clearly talked and shared their opinions without even a second thought that if they were proved wrong then they might had to face serious consequences because they were talking on big well renowned platforms. But they were so much clear to tweet and posts like this. Not only in Pakistan but from different countries we have seen that some are not accepting it all over the world so we cannot say that only in Pakistan people are rejecting or against it due to their traditional ideas, myths and religious beliefs. But this thinking is prevailing in every region up to a certain extent. Some people made many videos of people getting serious illness after vaccination and shared them on social media on the name of hidden reality of vaccination. This content created a great hesitation and ambiguousness in the minds of people towards COVID and specially vaccinations.

One of respondents explained.

“I was so much influenced with social media’s content regarding vaccinations. I was totally convinced for vaccination and knew that it would be useful to treat corona virus and it is the only cure through which I can protect myself against virus but when I saw different posts, memes, videos and tweets on social media then I felt very hesitation towards it and I got reluctant to take a jab of vaccine I have started believing after taking the dose of vaccine ill then I’ll have to face serious illness or some kind of serious disease or my immune system will stop responding or I’ll be dying after two years etc because some people on social media literally shared videos of very severe attack after the injection of vaccine. This hesitancy stopped to get vaccinated for some time but due to governmental imposition on vaccination I had to vaccinate myself, after that I did not feel any severe illness but some normal fever which I also recovered in very few days”.

Social media and mainstream media demonstrated and unfolded the situation of pandemic. It was very helpful for the people to get information through media platforms in this horrifying and chaotic situation. They have guided people how to get protected simultaneously they have created a lot of confusion and hesitation towards COVID-19 pandemic and vaccination specially the conspiracies which social media has shown.

5.3. Doctor's view about COVID-19

According to the doctor's view the outbreak of a new virus which we call as corona virus actually exist in the world because it's very infectious and hazardous and can easily be spread among people. It spread like the cold virus and infects patient's upper throat. The virus came from mammals and birds but then it affected people (humans) badly and it spread among people easily through social contact, physical interaction. It affects the lungs of the humans directly and leads a person to death. It wasn't easy to find its cure. Specialists, pharmaceutical companies, specialists and researchers did a hard job to make vaccines in this panic and chaotic situation when everyone was after this. Doctor's suggested people to use hand sanitizers frequently, wash hands properly, make a social distance, avoid social contact and wear a mask, do not shake hands etc. so many precautionary measures they have suggested people to protect them from this deadly virus. They also follow all these measures like sanitize their hands, even gloves, clothes and shoes because they knew the sensitivity and intensity of this virus so in order to put themselves in safe shoes they did everything whatever keep them protected because they had to survive to save all the patients who were fighting for this disease but still by following all these measures too many front line workers like doctors, nurses etc. lost their lives while giving services to the people. It was dangerous to this extent that it took the lives of even specialists who knew that how to make them protected. There are many conspiracies against the COVID-19 and vaccinations, but the doctors always tried to convene people that the conspiracies are wrong and COVID-19 is not just a drama it actually does exist in the world and people have to take all the precautions, follow SOPs and get vaccinated if they want to save their lives. Now it seems like the virus exists no more it is true that globally, there is a decline in the number of new cases reported weekly since a peak in January 2022 according to WHO. But it does not show that its existence has completely ended or it did not ever come or it was just a drama. WHO still recommends to avoid mass gathering events.

5.3.1. Case study

There is another case study of a classified medical researcher Dr. Ahmad Hassan. Who did cross-sectional research on COVID-19 and vaccinations and wrote many research articles to provide fruitful information among people. Since there were a lot of confusion and hesitation in the minds of people regarding whole

situation. He tried to provide advantageous and appropriate information and shared his experiences to guide people on a right track and to save their lives. He also worked as front line worker, as a doctor in this pandemic. He said that he took his first dose of vaccine in a very initial phase from Shaukat khanum Hospital Lahore. He took the dose of Can Sin Bio vaccine when it was not properly coming as vaccine there were only trials but he knew that it would not be harmful for the people because they were just trying and working to discover the best cure for this alarming virus by doing certain experiments and it was a diagnostic activity. And he did not feel any serious illness after getting a jab. He said that he has seen a lot of patients were dying on daily basis because of this virus. Initially we were kind of helpless to treat it and got so much afraid. When it properly came and introduced as corona virus, I have faced a lot of pressure from relatives and friends to stay at home not to go to hospital and see corona patients because it was spreading so fast and my family was afraid that I might get infected. But I was quite hopeful that I can do it and we will get over it. He added that there was a lot of misinformation, illiteracy among people they did not even believe that this outbreak actually came, and this is a life taking virus. Some people believed that it is just a normal flu and fever, and they want medicine only for fever and flu they were not ready to take doses of vaccinations and scared that the vaccines were going to kill them, they are not safe. According to him traditional knowledge, myths, rural site folklores, pseudo religious beliefs and conspiracies on social media has created resistance among people to get vaccinated. He said that as a medical professional I do not believe on any conspiracy, this virus came like the viruses have come in the past. He did not get introduced by virus through main stream media like most of others did yet he has seen some content on social media against this but he said that I knew, it is just a conspiracy there is no reality in it. People should grow their thinking and should research properly on it before spreading these falsifications. I got vaccinated and also took doses of boosters I did not feel any kind of sickness which I could associate that with vaccines. As a medical professional it was very stressful and fearful situation for me during its peak.

5.4. Religious perspectives of people on Vaccines

As Pakistan is a Muslim majority state, where almost all the rules and regulations of the country follow the Islamic Law. According to Al Quran (Islamic Holy book) and AL-Hadith (record of the words, actions and silent approval of the

Islamic Holy prophet) which collectively called as Shariah. Muslims have to follow the Shariah because in Islam every aspect of life should align with the Shariah. When the type of situation come when Muslims have a alot of ambiguity in their minds regarding certain issues then Ulemma perform ijtehad to address according to the teachings of Shariah and formulate a Fatwa for the better understating and to clear the minds of people about the relevant issue. Since the Fatwas are based on Fiqh and Ulemma's ijtehad (best efforts), scientific knowledge and experiences of Ulemmas. Different religious experiences of Ulemmas and varying scientific knowledge can do amendments on the Fatwas of the Ulemmas relating to different fiqhas. In the case of COVID-19 and vaccinations Ulemmas formulated fatwa by considering the religious and scientific values fairly. They have had concerns with purity of contents. The ingredients of vaccines contain active and essential components which boost up the immune system and have capacity to fight against target pathogen. It typically contains water plus addition of other components like adjuvants, preservatives, emulsifiers (polysorbate 80) or stabilizers (gelatin or sorbitol) to improve immunogenicity. These ingredients were added in very small quantities. To understand the vaccine purity according to Islamic Law helped out the Muslim Majority to get vaccinated generally.

But some people who understand Islam just on a surface level or according to their own level of understanding and follow traditional ideas, myths, knowledge and the aspects of Islam for their personal benefits and always created barriers upon certain change in the society in the case of COVID-19 vaccinations too they have started spreading false ideas and misinformation among people that it is totally a western propaganda or plan of Jews to kill Muslims. First, they purposefully spread corona virus in Muslim majority countries which became the cause of deaths of many Muslims then they discovered its cure as a name of vaccine which is going to kill Muslims and to eliminate the Muslim community from the world or to paralyze Muslims and to develop infertility among males and females to

Control or stop the growing population of Muslims. Moreover it is totally prohibited in Islam to inject vaccines because it is Haram and it's not allowed for the Muslims to follow any western idea and take jabs of vaccines. Some of the views were also that it's an indication of the Day of Judgment is near that in Kabaah few people were allowed to perform Hajj (only locals) this year. People were not allowed

to come from other countries and perform Hajj like always because their Government put a ban on it. So it was clear indication that it is pre planned phenomenon and wants to stop the worships of Muslims and Qayamat is near they all will get caught by Allah who are doing this. And when people started feeling reluctant to go to mosques and perform prayers as a group. They got afraid that by standing close to the others and shaking hands while greeting they might get affected with the virus so they have to maintain social distancing and avoid social gatherings in daily prayers, Jumma prayers, Eid prayers and other social and religious events too during this pandemic and to keep themselves and their families protected and safe and prefer to stay at home and perform religious activities like prayers alone at home and the mosques getting empty for certain period of time then the critical thinkers started thinking the same way like it's an indication that qayamat is near and it's a clear evil planning of non-Muslims for the Muslims.

In Christianity there was the view of some people that it was predicted in Bible that a pandemic is going to come in future and people would have to suffer from it. So they said that they are not going to follow the social distancing because it is from God and pre written and we have to pray God on every Sunday collectively .God will get angry more upon us and we will face serious consequences and corona virus will attack on us more severely if we stop praying just to follow social distancing.

In Shia community it has been seen that they also did not follow any social distancing and continue their *juloos* with a mass gathering of people. Every year there is a large number of pilgrims who visit Imam *Bargahs* and pay tribute to their beloved Imams and spend whole day there. Shrines of Shia's are being visited with large number even during pandemic. According to them life and death are in the hands of Allah. Any worldly virus or pandemic cannot stop us to visit our shrines we are not afraid of this pandemic. And their attitude has been actually observed in their *juloos* on 10th Muharram in Narowal and also on the chehlum of their beloved imam where nobody was even wearing masks and taking care of social distancing.

Generally, it has been observed that in both locales if people have developed their attitude towards rejection of vaccination then there is no role of any religious constraint in their behaviors because the religious scholars did not tell them to do. Nor in religion there is somewhere written that vaccines are haram. Even the Hadiths of our prophet Muhammad (SAW) guided us in ways like:

“When you hear that [a plague] is in a land, do not go to it and if it occurs in a land that you are already in, then do not leave it, fleeing from it,” (karadas told) This Hadith has guided us about the concept of quarantine. And today the same concept of Quarantine has been followed in the episode of corona virus outbreak. “Many centuries ago, our Prophet urged his people to eliminate the element of contact to save lives. It shows how much Islam values protection of life and health,” Karadas analysed. It shows that the concept of social distancing and making no physical contact and interaction, Islam also taught us to do that in the situation when it is a fear that the disease can spread with making any social contact and avoidance of it can be beneficial for the health of people and to eliminate this disease so there is no harm in it if people practiced social distancing in the pandemic situation if some people related social distancing that ‘baa jammat’ prayer is important. Social distancing should not be followed it is prohibited in islam namaz is more important than any other thing and it is plan of non-Muslims to stop the worships of Muslims then there is no reality according to the religious knowledge if people are thinking this way then they must have other reasons behind it to avoid vaccination or they must have lack of knowledge about religion and science both and they are more after traditional myths, folklores and ideas or they are the followers of conspiracy theorists who opened up on social media and tried to deviate people by giving scientific logics but in the region of Narowal people are more after their traditions. Acceptance of any kind of change in their community is kind of impossible or very harder. So the acceptance of this pandemic and its vaccine was very hard for them because this was not something they used to follow. They hardly think about something by themselves individually about a particular issue otherwise they are supposed to do which has been set in their culture from ages or what their elders ask them to do. There is a lack of innovative ideas, education, self-creativity, critical thinking and personal opinions have been observed among those people.

5.4.1. Case study

A case study of a person who belongs to Narowal, His name was Asghar Ali who lives with his wife, three children and parents and works at a local restaurant he told me about his situation during the pandemic and how his decisions got manipulated by social pressure.

According to him, Through media I got to know about the corona virus, media highlights has created a great fear in me i am also a daily wager person, due to lock down I've faced a lot of financial crisis that's why I just wanted to get rid of this disease for me, for my family and from all over the world because it became very difficult for me to fulfill the needs of my family then media introduced us about its cure and antidote as vaccines so I was highly willing to inject vaccines to me and my family so that we can get over it quickly. Then suddenly one of my wife's friends came. She is our neighbor also started claiming about vaccine's purity that it is not halal its haram, it's not allowed in our religion Islam. It is just a dirty planning of non-Muslims to kill Muslims the ingredients of it is haram because it contains the pig's extract. It is the ideology of 'goray' to kill Muslims in the name of cure first they spread corona virus among us by eating different haram creatures this virus emerged from them. Then they spread it among Muslims too so they will also die because of this and then announced different precautionary measures like lock down, social distancing, avoiding hand shaking and greeting, they do not want Muslims to perform their religious prayers, not to go to mosques and meet each other, mosques are getting empty because of this very reason and people are also not allowed to go to khana kabah and perform hajj so this is an open indication of Qaymat. We should not be vaccinated it contains haram ingredients otherwise we will be the followers of Kafir and will die soon. We can protect ourselves from this virus through our home remedies like lemon water, qehwa of different herbs and eating healthy we don't need these western made vaccines to save ourselves. In short she manipulated my wife and my family in different ways and she got successful in this. My wife took final decision, changed her perception about vaccines and decided that she will not get vaccine jabs and stopped my children and parents also that it is not safe and it's Haram. She also enforces me to not to be vaccinated otherwise our family will continue to suffer its consequences throughout the life.

The perceptions of different people around were influencing the perceptions of their relatives, friends and neighbors because there were not a static opinion about the situation in the minds of people and there was a great chaos everywhere.

5.4.2. Case study

The case study of an Ulemma who belongs to Islamabad and he was from Ahl e sunnat sect. The extensive interview has been conducted from him. First I asked

about his perceptions about vaccinations they told me that me they just take it like a pandemic which broke out. About Fatwa they said that it a mutual opinion of all Ulemmas that we should take vaccine doses and Islam allows us to protect ourselves. According to the rules and laws of Shariah there is no harm in it to be vaccinated. Like in summers and winters we got sick with the seasonal flu and fever. And we take medications to cure it same is the case with corona virus it is a pandemic, and we can take vaccine jabs to cure it. He added that our society is full of false rumors and many people became victim of it. We do believe on science but a Muslim we follow the orders of Allah and his prophet PBUH. The people who are just following their own ideas and their traditions and conspiracies who feel hesitant to get vaccinated in Islam there is no such hadees and ayat which declares that it is haram and we should not vaccinated. He told me that in his surroundings there are no such people who are not vaccinating themselves on the name of religion. According to him Government took good precautionary measures to keep people protected against corona virus. And if social distancing is must in to control the spread of pandemic then we must follow this and should not go to the mosques and offer the prayer (*baa jammata*) and the people who are following the conspiracies against corona virus and gives scientific logic he had no words or them, they said that its their personal beliefs and opinions and I cannot say about it anything that on which groundings they are pulling out their conspiracies. Being a Muslim it is our moral duty to guide people on the right about a certain people and in my opinion that it is a “wabaa” which broke out among us like the pandemics have come in the past on our nation and our previous nations we must act according to the teachings of Islam and act accordingly. We should did out a mid-way to satisfy people both scientifically and religiously. So there will be no left ambiguity in the minds of people regarding acceptance and rejection of vaccines. In my suggestion, being a Muslim and responsible citizen, we must try to proper knowledge and information about a certain problem from Islamic perspectives and from scientific perspective too after passing any judgment in any case. In this situation people need to act accordingly and try to attain the authentic knowledge regarding situation. Because in Islam/Quran we find a solution of every matter, problem, and situation we must not confuse ourselves.

The other Ulemmas also have the same perceptions about COVID-19 vaccines. They are more inclined towards taking vaccination doses and teach people to do it too. Islam allows us to protect ourselves it is more like other medications

which we take when we face other seasonal diseases. There is no objection in Islam to be take vaccines against and pandemic. Islam emphasizes on to protect our lives in any way it does not allow us to harm ourselves deliberately.

5.5. Conclusion

Media played its significant roles in making and changing the perceptions of people both mainstream media and social media have different dimensions in shaping up the perceptions likewise ulemmas have also guided people to choose a right way in making their perceptions for vaccinations. Mainstream media has scared people by keeping them updated about current situation and the breaking news of new corona cases reported and their death rates it indicates the horrifying situation because of corona virus also signifies that how much hazardous it is and how much easily spreadable it is. Simultaneously the social media has played its role in reverse to this by spreading conspiracies about corona virus and vaccinations on different platforms on social media. According to my research and taking the different opinions of local people in Islamabad and Narowal I came to know that media also did play its role in shaping up the behaviors of the local people of both the regions. In corona situation the youth was more using the social media in their leisure because they did not find any other activities to in the lock down situation so they started spending more time on social media more than more so when they see content on social media against vaccinations, different conspiracies, twitters and posts so it has also created great confusion and hesitation among them some of them actually started following those ideas too. Other than conspiracies on social media, the economic status and locality of people were also the reasons of difference of opinions in Islamabad and Narowal. The people of Islamabad were taking COVID-19 very seriously, vaccinating themselves and following all SOPs strictly. But according to the most respondents from Narowal they said that initially they were very hesitant and confused for vaccination. Some of them did not change their perceptions but some of them changed their perception with the passage of time according to the current situation. Moreover, the media has introduced them about vaccinations. According to the confirmation from the religious scholars they have confirmed that people who are not taking vaccine doses they are doing it according to their own personal reasons maybe because of the myths and traditional ideas and folklores like it is very strange thing to be vaccinated and religion does not allow us. But in Islam there is no existence of any folklores and

absurd ideas. Islam teaches us to protect our lives in any way and do not harm ourselves and it also allows to take vaccination to fight pandemic.

6. Socio-cultural constraints towards COVID-19 vaccination

This chapter fulfills the fourth objective of the study. It has been analyzed that several socio-cultural constraints created hesitancy in people regarding their attitudes towards COVID-19 vaccination. This chapter highlights that which kind of socio-cultural constraints they have faced in the whole episode of Corona and how these constraints created hesitancy in the minds of people and shape up their attitudes towards the acceptance or rejection of vaccine in the local community of Narowal and Islamabad.

6.1. COVID-19 vaccine: Perceived source of infertility

By analyzing the particular community's responses, it has been seen that there were different kinds of beliefs and misconceptions came out with the emergence of COVID-19 vaccination. We can say those beliefs as myths and misconceptions about vaccinations because they are not scientifically proven, and vaccines need a scientific approval and an objective reality which prevails in all over the world as it is scientifically made. So, we can say these traditional ideas and beliefs of people as myths and misconceptions with reference to science. Just like in the past there has always been reluctance for vaccinations against any disease. The reasons of this reluctance also named as myths and misconceptions since then. Multiple types of beliefs and ideas of people which developed reluctance against COVID-19 vaccination also came out with its invention and became constraints for the people in the acceptance of vaccination. These constraints are socio-cultural which played a great role in creating hesitancy. One of my respondents said:

“My perception about vaccination was good initially that I thanked God finally we got some cure to control or treat this pandemic but gradually I heard some of the strange things about it from surroundings that it might develop infertility in both males and females also has those content which makes a person impotent. I got very scared when I heard this and created hesitancy in my behavior towards COVID-19 vaccination”.

We can say these strange things as myths and misconceptions because it was not scientifically proven. I have analyzed from the responses of my respondents that it varies from culture to culture and in both locales, I have found differentiation in the belief system and behavior of the respondents which made or changes with these myths but overall these became as major constraints in making or changing

perceptions of people. As the local community of Narowal was more vulnerable to change their perceptions towards COVID-19 vaccination that could be due to they were not much educated and do not have their own solid opinions as such and they can easily believe on the things which roaming in their culture or whatever said by their neighbors or friends or relatives just like about this myth that vaccination creates infertility and the girls who get vaccine will just have baby girl and cannot give birth to a boy ever. Moreover, it is not safe for breast feeding mothers they should not be vaccinated because it would have negatives impacts on a child. Mostly the people belong to Narowal have started believing on that and it developed hesitancy regarding vaccines in their behaviors but according to the local people in Islamabad they said that they also have heard about it but it didn't change their behaviors and they went for taking the jabs of vaccination with no hesitation because for them it was hard to believe on these misconceptions. Here's also come an element of being educated that science does not say anything about that.

“My cousin got married 3 months before when she did not get pregnant in 3 months then everyone has started saying that she took a jab of vaccine that's why she is not able conceive a child uptill now” stated by another respondent that she heard it from her friend, and she got hesitant too after listening to that.

6.2. Perceived disruption in Menstruation cycle

COVID-19 vaccinations disturb the menstruation period of a women which also leads to making a women infertile it was commonly heard myth among local communities. Some of the responses were in favor of this but mostly were against that it's not true it does not impact on the menstruation cycle of women. But due to terror and rumors that it does disrupt the cycle. some of the women got reluctant about vaccination because this is something very sensitive biological cycle of a woman which makes her woman, so this also became a great constraint for them in their attitudes towards vaccination.

“My grandmother strictly warned me not to have any kind of vaccine it would be unfavorable for my womanly health I became a slight hesitant after listening to her but I took it in that case too because my friends were also taking this and they said it did not affect their menstruation cycle and it did not affect my cycle too” expressed a university going student in Islamabad.

As with the emergence of vaccinations there was an emergence of abundant misconceptions about it too which was roaming like a fire in the society so it was hard for people to completely ignore all these myths, somehow they were affecting almost everyone and creating a kind of hesitancy among them it was just that some people due to their backgrounds, educations, socio-cultural factors there ratio was varying but it did exist in almost every mind. It has been observed that if people got any kind of health issues after vaccination, they just blamed that it happened due to vaccines just like a girl I have interviewed she replied that *“I got my periods with a little delay last month after vaccination then I thought it must be due to vaccine and I got little afraid too”*.

Another response was that: *“I have heard from some people that vaccines can also cause physical changes in the body of girls like it might have a chance to grow beard on the face of girls”*

6.3. Vaccinations as perceived early reason of death

Vaccinations are perceived as premature reason of death. It was mostly heard that a person who get vaccine jabs may not have any dangerous impact now, but it will become the cause of his death just after 2 years. According to the respondents that mostly people were talking about this when vaccination came to develop immunity against virus. This misconception created a great uncertainty in the minds of people and became a constraint in their acceptance of vaccination because it was about death risk. Some people were of the view that vaccine contains that content which would be affecting their natural defense system instead of boosting their immune system against virus. It also makes the immune system more prone to have other disease very quickly and become the reason of early deaths of innocent people. These views in the society has impacted the perceptions and behaviors of people so much and generated great hesitancy because it was the matter of life and death people got so much scared who believed on that due to reasons of being less educated or uneducated and more traditional who believes on whatever said by their relatives friends and neighbor.

One of respondents said;

“I was about to get vaccination when it first introduced in our area and media was asking us to have vaccine jabs because they declared it as a cure against COVID-19.

I am a daily wager person and used to have stall of little garments on the road side but due to lockdown became very difficult for me to fulfill the needs of my whole family that's why I wanted this pandemic to get over as soon as possible so that our lives came to the normal track because of this reason I was willing to get vaccination but suddenly I heard from my friend who was also a daily wager told me that I should not get vaccination because it's not safe and you will be dying after 2 years after having this. I have heard about it from some of other people too, so my attitude got shaped up and I got reluctant towards vaccination because I was the only bread earner of my family and I did not want to die soon”.

Vaccine, a reason of death in two years, heard by my almost every respondent in the turmoil situation of Corona virus. It did become a constraint for some people to inject vaccines because a great confusion was spread among the people due to this sudden attack of virus in the world. So it was very difficult for the people on what to believe or what not to believe and this rumor was about risking the lives so it has produced uncertainty up to a great extent in the minds of people and they got hesitant. But according to some people they did not believe on it and took it just a false rumor because technically it was not possible as vaccine contains safe ingredients.

6.4. Vaccines contain Nano-chips

Various socio-cultural constraints made amendments in the perceptions and attitudes of people towards COVID-19 vaccination. These constraints produced by a typical culture of people which developed by following somehow their cultural traditions, norms, values, religious factors, sayings of elderly person and believes on prevailing myths who have always been resistant to change. The acceptance of vaccine is a kind of originating change in the monotonous traditions of people for years, so it was hard for some people to accept change which results in emergence of several myths and misconceptions along with vaccines. It also includes one of the beliefs which restricted the behaviors of the people, and it is also heard by many of my respondents that it is propaganda of Jews and America who wants to kill Muslims and to get access to the privacy of people. That is why it contains Nano-chips to monitor the activities of people and to have every little information about them. And the 5G technology in the vaccines weakens the immune system also.

“When I heard that it contains Nano-chips through which our privacy would be compromised and a technology to weakens our immune system. I did not believe on

that much. But my circle keeps on insisting that there could be possibility like how sudden this pandemic came with mild symptoms about which we have never thought before and maybe it is deliberate attempt to start a bio-war. These beliefs around me also impacted my thoughts and got resistant for vaccination and changed my perception” explained by one of my respondents.

One respondents also shared that:

“My friend told me, he read somewhere on the internet that vaccines can also cause ‘autism’ which is a developmental disorder of variable severity that is characterized by difficulty in social interaction and communication and by restricted or repetitive patterns of thought and behavior. This also made me to re-think and do more research on vaccines”.

6.5. A Political Propaganda

As there was an ambiguous situation due to COVID-19 and there was a great confusion among the people. Nothing was clear to them; they did not know how to react. People were rapidly losing their lives and to due to lock down there was an increase of financial crisis and lower class has also started dying due to hunger and government was unable to do anything. They did not have even complete medical facilities to treat a patient and day by day people were losing their loved ones. It was difficult for them to accept vaccines too because they have already suffered so much so many people have started thinking that COVID-19 and vaccine is a political propaganda. After all these circumstances some people also got doubtful about virus’ existence they thought that it is not that much contagious virus. Government is deliberately killing people to increase death rates in order to get loans from the core countries. These beliefs were also prevailing in the locals of both locales. Some of my respondents also think that it is a fabricated story and a political propaganda at both national and international level. According to them our government is not trustable they can do anything just to fulfill their interests. Pandemic is real but these vaccines are hard to believe it could be a conspiracy of some political elites who wants to minimize the population of the whole world.

“It is a conspiracy of some powerful elites who are ruling the whole world and want to minimize the population of whole world from 7 billion to 3 billion by deliberately spreading these pandemics just to boost up their economies and make

themselves more strong. Virus came but it was not that much severe as much the media has created its hype. Moreover our government 'choomtay hain quran pak ki tarha, IMF, World Bank, or Bill Gates ko' because they give them money as a name of loans to remain silent' professed by one of my respondents.

In contrast, some of my respondents also argued that these conspiracies, myths and misconceptions are just deviating our perceptions and behaviors from the severe issue and just spreading false rumors about vaccination that is a real cure against this contagious virus. Globally conspiracy theorists' just want to encounter US. And communists want a fall of capitalists.

There were diverse ideas and perceptions of people, some of them thought that it is a Political propaganda and they made their perceptions against vaccinations some of them were against these kinds of ideas and opinions of people and they are more towards acceptance of vaccination and made their perceptions accordingly and did not change their perceptions due to any myths and conspiracies. But the people who were not in favor of this and more towards rejection of vaccination they made or changed their perceptions according to the circumstances.

6.6. Vaccines perceived as prohibited in religion

There was also a question rose that what are the content and ingredients of vaccine? Are they *Haram* or *Halal*? Do Islam allow its ingredients or not? Is it okay for the Muslims to take vaccination are not? There was a rumor which spread about it that vaccine contains porcine based enzymes that are not tolerable in Islam and Islamic scholar declared it haram. This myth and misconception spread like a fire in forest among uneducated, lower economic class and in the locale of Narowal. According to my respondents they told me that some people especially more religious people in Narowal they were saying that it is Haram, and Muslims should not inject vaccine otherwise we will become very sinful and how will we become answerable in front of Allah. This ambiguity of Haram and Halal also somehow entered doubts in the minds of some of my respondents and they become curious that first we should also confirm the ingredients of vaccine then to take any step for vaccination. So these fakeness also became the reason of hesitancy in the minds of some of my respondents who belongs to Narowal and impacted on their perceptions According to them before anything it is important to know, what does Islam says about anything we are the creation of Allah and we must follow the Islamic rules and regulations first even it is

matter of our lives and deaths. These are the words mostly said by the local community of Narowal. It has been analyzed that people there usually think about or make perceptions of vaccination while being emotional and stay close to their cultural traditions and do not think rational.

One of respondents stated that

“Her father is a religious scholar they said that first we will check the nature of vaccination as Haram or Halal even before its efficacy then we can make any perception about it or go for it”.

6.7. Genocide of Muslims

It was also one of the prevailing beliefs that vaccines are the propaganda of west. It is a westernized propaganda, also a plan of some elites/ illuminati's who are ruling the world they have deliberately spread this pandemic to fulfill their interests specially to kill Muslims. Also to stop religious practices of Muslims just like there were multiple opinions among the local community is that it is a propaganda of Jews to kill Muslims in massive quantity that's why they chose this way that nobody would ever suspect on them and to diminish the religion Islam from the World that's why many religious practices of Muslims has also stopped in this pandemic just like they have banned on performing Hajj and only few people were allowed to perform Hajj. Simultaneously the SOPs of social distancing have been created on a purpose that Muslims would not be able to go to the mosques and offer their prayers with each other.

One elderly person in Narowal told me that;

“When I heard several these types of opinions from many people that there could be a possibility that vaccines is a deliberate attempt to kill Muslims because Non-Muslims have always been an enemy of Muslims so instead of fighting with guns they might chose this way to kill Muslims. My perception about vaccination also made this way”.

It has been analyzed that this myth was mostly believed by elderly persons or who do not have any knowledge about vaccinations and Corona virus, and they are just blindly following the myth that ‘*Jo karwa rha hai America krwa rha hai*’ for years.

In contrast mostly people who had knowledge about what was happening in all over the World. Their perceptions was not affected by this myth that it's an attempt to

genocide of Muslims because according to them it was happening in all over the world and vaccines discovered for all the people of the world not just for Muslims and it can be a cure against COVID-19. But there was another information which has some relevancy with this belief, some of my respondents shared that vaccines might not made against Muslims, but it is also true that big pharmaceutical companies took Muslims and the people of Third world countries in which Pakistan is also included to have vaccine trials on them. They were taking those people just as a trial and to check efficacy of it whether it develops immunity against virus or not but its consequences could be dangerous too for the bodies of people on which they were testing vaccines they also risk their lives to know about its efficacy and in return they gave money to the people who became willing to get jabs. They deliberately chose poor countries and Muslims too so that they can quiet them by giving money in return. In Pakistan they gave 3000 per person initially who were willing for the vaccine trials. But overall, among my selected respondents it has seen rare that this myth of ‘Genocide of Muslims’ became a constraint and changed or made any perception about COVID-19 vaccination except the people who were old or illiterate. Only they have molded their perceptions according to this misconception.

6.8. Mistrust on Doctors

There were several misconceptions about the doctors too i.e. they are not working in the favor of people they have made alliances with government and want more people to die because the government is connected to illuminati’s who wants less number of population left in the whole world. This also signifies the lack of trust of people on Government. Some of the views were that they have also seen and observed these types of hesitancy in the society. People felt reluctant to go for the doctors and in hospitals even for their regular checkups and to treat other diseases. Because they got scared that might doctors not kill them and inject with medicine as a name of vaccine which produce other diseases in the body and ultimately cause a death. It was commonly heard phrase for doctors *“teeky lga lga k mar rhe hn”*. People also avoided to go to hospitals that they might not catch a virus from anything in the hospitals. There was another most commonly heard misconception about doctors.

One 50 years old respondents expressed.

“I heard from some people that doctors made alliances with government and after killing Corona patients they are trafficking the organs of bodies to black market and making abundant money. After that they are throwing bodies to mountains when I heard this I also got very scared and started avoiding to go to doctors and hospitals and my perceptions about vaccination also affected because of these rumors”

In Corona days there was a great tension between the people, and they have developed a lot of mistrust on the doctors the people felt reluctant to go and see a doctor just because of the misconceptions which was spread among people. Most of the people have started organizing the online meetings with their family doctors and trustable doctors for their regular checkups. Respondents also shared that there were also some opinions of the people who talked about in their favor like health care professionals/doctors and other medical staff like nurses are front line workers and they are saving the lives of people by putting their lives on risk just like a soldier fight for a country on the border, doctors were playing the same role and many doctors also lost their own lives because they caught virus from their patients and which becomes the cause of their own deaths. And these opinions impacted positive on them in making their perceptions and behaviors towards vaccination and erased hesitancy which was developed due to these misconceptions against doctors and vaccines. In contrast, with the invention of vaccine initially the cases were not getting low and people were dying with the same ratio then some people spread rumors that due to vaccines people are dying more quickly and these vaccines do not contain medicine but poisonous content to kill people. And other rumors which have been explained. These rumors impacted negatively in their perceptions towards vaccination and developed fear and hesitancy in their behaviors and perceptions.

6.8.1. Case study

It is a case study of an old, aged person who lives in Narowal, rural area and he was a cobbler. His name was Muhammad Ameen. His age was around 64. He sits on the roadside and mends the shoes of people. He has a sick wife who was a patient of tuberculosis and a daughter in law with two children. His son has died some years ago in an accident, he was a rickshaw driver. Her daughter in law works in the house of others as a maid. Now he and his daughter in law were two people who were running a family and the supporters of the family. But in the situation of corona, they have been going through very severe circumstances. He could not go out because all

the markets and places were deserted. There was no place for him to run a his little business he has to stay at home her daughter in law was also not going for work because the people has started avoiding the outsiders and maids too she was also staying at home there was no work for of them and he has no savings so he can eat for a month or two meanwhile his wife has become severely ill. He had to take her to the hospital DHQ where already were a great chaos of corona virus. Everyone was afraid and doctors were not attending her because they were more focused on corona patients in those days. Then one of the doctors attended her and diagnosed that corona has attacked her and she became the patient of it. Then they admitted her and put her in isolation and started medication and stopped us to visit. He got so much afraid that what is going to happen now because he heard from many people in his surroundings that the doctors are deliberately injecting poisons to corona patients and killing them instead of saving them by the orders of government .he was not trusting on doctors and got very scared but he could not do anything else, he did not have other options in next two days the doctors told them that his wife could not survive they could not treat her because the virus has attacked her badly as she was also a patient of tuberculosis that's why she has died in very short period of time. They did not even allow them to see her body neither allows them to fulfill her funeral rituals because there were also chances of its spread with dead body too. That was very horrifying and emotional situation for them. They were feeling so helpless, but they had to bear this and go back to their normal life. So overall the family of Muhammad Ameen and he himself had suffered a lot both financially and emotionally in corona and lockdown situation. Moreover, he also became very hesitant towards vaccination especially after the incident which happened to them.

The economic situation of the people also leads to face big traumas in their lives. Due to decline in economic status their every matter of life got disturbed. Their mental health were also affecting badly due to continued stay at home and with no social interaction and no work they were going through some mental problems too like depression, anxiety, panic attacks because they remained worried and stressed so much all the time with tension of health, lack of economic resources, weak family bonds and no social interaction with friends where they could open up themselves and release frustration and anxiety so that they could feel better. COVID-19 pandemic made the lives of people so miserable and made their lives from normal healthy lives

to abnormal lives. Their daily routines, work, hangouts, activities were so much disturbed especially the crisis in finances were more upsetting for them.

6.9. Suspicions on Pharmaceutical companies

Pharmaceutical companies also got hit by the conspiracies that pharmaceutical companies made vaccines just to increase their consumption rate and boost economies there were also prevailing views of the people that they are even doubtful about the existence of corona, and it is just like a normal flu. These companies tied with other platforms and declared that flu as Corona virus just to increase their consumption rate and to sell their products and they have also discovered vaccines on purpose to boost up their productivity. Because it has been seen that during the pandemic of Corona virus where all the economies and businesses of people got affected badly and people have faced a lot of losses in their businesses. Worldwide economies were getting due to closure and sealing of offices and factories in the lock down. And industries of clothing, shoes, paper, steel every kind of industries and factories were closed and this impacted badly on their productivity and economies. Where all the markets of world were getting down and bearing losses at the same time the pharmaceutical companies were boosting up to the mar. Their production and consumption rates were getting very high. Due to excess sale of Masks, hand sanitizers, medical kits, hand washes, medicines, multiple types of sprays to avoid germs, gloves and masks of different types and their prices varies accordingly. At the same time with the invention of vaccines their productivity and consumptions has increased, and their economies were boosting up exceptionally. Mainstream media and government enforce us to get vaccinations in fact Government was also forcefully asking people to get vaccination by introducing different restrictions. Like they did compulsory the vaccination cards before doing any action in the society whenever people go somewhere they should have vaccination cards otherwise they have banned the entries and also stopped the salaries of people who did not get vaccinated, yet many people took vaccine jabs just to move in the society. These governmental measures and mainstream media ultimately also facilitating the pharmaceutical companies because of these measures people either forcefully or deliberately have started taking more vaccines and this has increased the consumption rate of the pharmacies. After that different doses and booster doses of vaccination has discovered and they became compulsory too that

people have to take them in case their movement in the country or they need to travel abroad.

This increasing economy of pharmaceutical companies has attracted the conspiracy theorists. They have made and spread multiple opinions about them it is all pre-planned and propaganda of these companies which made alliances with other elites on a broader level to have their mutual interests and benefits and people who believe this theory were those who were already following other myths and misconceptions. And this theory of the conspiracy theorists also became a constraint in make a positive behavior and perceptions of some of my respondents towards vaccination and they were those whose perceptions were already impacted by other myths and conceptions.

One middle aged respondents shared;

“I have faced a lot of loss in my business but when I saw that my other friend who has a pharmacy and his business is running exponentially then I have also started thinking that way that it might a propaganda of big pharmaceutical companies to increase their economy and this also amid my perceptions against COVID-19 vaccinations”.

Another respondent explained that;

“My perceptions about vaccinations were not in favor of it and I was hesitant towards it. But due to governmental measures and enforcement of government I had to take vaccinations and then made a card for it because it was a need of hour to have other by hook or crook and to move in the country in malls, hospitals, schools, colleges, universities and almost in every institute they were checking the vaccination cards, slip or message from NADRA first. That’s I took vaccines. But I have seen some of the people around has also started making fake vaccination cards by using their resources and did not inject vaccines in real”.

6.10. Conclusion

To conclude the role of socio-cultural constraints, it has been analyzed by researcher that several myths and misconceptions about vaccination also became the constraints for the people regarding their perceptions towards COVID-19 vaccination. These constraints played a principal role in shaping up the behaviors and perceptions of people. Which have been seen that the people with low education level and low

socio-economic status, more followers of their traditions and myths regarding vaccines and have lack of trust on government were less inclined towards vaccinations they did not want to vaccinate themselves initially and were greatly hesitant towards it. The perceptions of some of those people remained same they got vaccinated by force. Due to the imposition of Government but some people among them changed their perceptions gradually and vaccinating them willingly and by choice. In contrast the people with higher education level, upper socio-economic status, they were ready to fight this pandemic, did not believe on myths against vaccines and had trust on governmental measures and medical sciences they were more inclined towards vaccinations and willingly taking the doses of vaccines and booster doses and following all the SOPs and fighting against pandemic and playing their prime role in the control of this spread. But there was also an existence of another category of the people and had all the accessibilities too but they were following the more conspiracies which have shown on social media and became a conspiracy theorist too and started tweeting, posting and sharing memes on social media against the corona virus and specifically its vaccinations i.e. they are not safe this all is just a propaganda to make people fool and lessen the population of the world. Vaccines contains poisonous content which become the reasons of person's dying after two years and it also weakens the natural immune system they have also shared some videos on social media which shows the severe reactions of human body after being vaccinated and the videos of the rallies against vaccination which held in other countries shared on social media to divert the people's mind that it is not safe it will become the reason of your deaths very soon and produce many other diseases in your body. It also contains microchips which will be used to take your personal information and it is just a conspiracy of illuminates to minimize the number of people and they have a prime purpose behind it which will be beneficial for them. Many people got hesitant and become double minded after watching this type of content on social media and their perception were getting affected. These socio-cultural constraints played a significant role in making and changing the perceptions about COVID-19 vaccinations in local community of locales.

7. Summary and Conclusion

This multi-sited ethnographic study was aimed at exploring local perceptions and socio-cultural constraints towards COVID-19 vaccination of the locals of Islamabad and Narowal. The research question assumed that exploring the perceptions and behaviors of people shaping up by socio-cultural constraints. Which factors affected them more to make or change their perceptions towards it? And which causes hesitation and acceptance of vaccinations among them. Therefore, the first objective of the study was to explore the perceptions of locals and behaviors toward vaccinations in Islamabad and Narowal. The second objective of the study was to document conspiracy theories prevailing among both regions on the topic of COVID-19 vaccination. The third objective was to analyze the role of media which involves both mainstream media and social media and ulammas perspectives in shaping the perceptions of locals for the vaccination. The main objective of the study is the fourth objective in which the researcher found out the sociocultural constraints faced by the people and how much they played a role in making and changing perceptions of people for vaccinations. It has been seen that they are strongly shaped by these constraints.

The third chapter of the thesis focused on the research setting and methodology applied. The present research study is primarily qualitative and was conducted from February 2022 to August 2022. Fieldwork was conducted in multiple geographical locations of Islamabad and Narowal. The sample size of the present study was 25 ascertained through the purposive sampling technique. The researcher conducted semi-structured interviews with 25 locals associated with different backgrounds, regions, socio-economic classes, and education levels. Detailed semi-structured interviews, informal discussions, and participant observations were also a part of data collection. Note-taking, phone calls, and audio recordings of the respondents proved helpful in documenting information from the field. The fourth chapter discussed the perceptions of locals about COVID-19 vaccinations. It has been observed that people, who belong to Islamabad, are educated, and have sound socio-economic status have less or no hesitancy towards vaccination as compared to the people, who belong to Narowal, who are less educated and have low socioeconomic status and have great resistance towards vaccination. Typically, the perception and behaviors of the people for vaccination are dependent on their backgrounds and regions.

This thesis analyzed several factors which influenced the perceptions of people for vaccinations. Some people have different perceptions about vaccinations initially but gradually they were changing due to different factors which were roaming in society and all over the world. In the fourth chapter, it has been analyzed the prevailing knowledge about vaccinations among locals of Islamabad and Narowal. The beliefs of the people about vaccinations and how they address them. How much has the emergence of conspiracy theories impacted their perceptions and behaviors toward vaccinations? These conspiracy theories affected the thoughts and attitudes of people towards vaccinations up to some extent. The people who believed in it, that it is a genuine cure for the pandemic after watching different content related to conspiracies against it on social media also become a little hesitant towards it and have started rethinking it. The impacts of conspiracy theories have been seen in the locals of both regions. And the people who were already against vaccinations after watching these conspiracies confirmed their perceptions that whatever they are thinking about it, is true as science also proves that. There also come a dependency on locales some people who believed in vaccinations in Islamabad denied it that these all are absurd propaganda and there is no reality in it. But in Narowal people were favoring it and spread it. That's how conspiracy theories played a role in making and changing perceptions of people.

The fifth chapter explored the role of media and religion in shaping or making the perceptions of people towards COVID-19 vaccinations. Media played a significant role, as mainstream media encouraged people in favor of vaccination because they were updated about all the current situations. The number of increasing deaths and how fast it was spreading on the contrary different posts, memes, tweets, and videos on social media which were against vaccinations discouraged people to take doses of vaccinations they were showing that some people were dying instantly after taking doses. This created a bit of hesitation in the minds of people who were in favor of vaccinations too because at that time there was a lack of knowledge or no knowledge among most of the locals initially their perceptions and behaviors got affected by the mainstream media and social media in both regions. According to Ulemmas, they encouraged people to take vaccinations because it is a natural disaster and there is no harm in it to find a cure for any pandemic and use it. So they played a role in encouraging people for

vaccinations. The perceptions of some people who belong to Narowal were that it is Haram and prohibited in our religion. It contains the drops of pigs which are not allowed in Islam, but Ulemmas denied these myths and said that these claims are baseless and self-created by the people who lack knowledge. They did not give any Fatwa against it. Both media played a significant role in making or changing the perceptions of local people in Islamabad and Narowal. And According to my respondents, they also followed the media during this whole pandemic very much and made or change their perceptions of COVID-19 vaccinations accordingly. But the impact of religions on the minds and attitudes of people was not much. Because Ulemmas were in favor of this and people were claiming that it is Haram was self-created. So the religious perspectives were not affected much by the perceptions and thoughts of locals about vaccination.

Another important factor, this thesis is also concerned with was that, what are the sociocultural constraints they have experienced during the whole pandemic. And how much they are interlinked with local perceptions? It has been studied in detail that many constraints existed in societies. There were several myths and misconceptions which also became constraints and played a major in shaping the attitudes and perceptions of people toward COVID-19 vaccinations. These include like it contains Nano-chips which record all the information about your personal life. It creates infertility among women and also disturbs their menstruation cycle and the person will die after 2 years of vaccination. Pregnant and breastfeeding women should avoid the vaccination and people who have heart problems, diabetes or other kinds of diseases should not use vaccination. It's particularly propaganda against Muslims. The vaccines are hazardous, and they are intended to kill Muslims and make them infertile. It is haram and contains pig drops. These myths have been seen as more common in Narowal a semi-urban city where people are more traditional, less educated, and less socio-economic statuses. They already believed in different myths and superstitious beliefs in their other matters of life. An abrupt change in that kind of society is very hard for them to accept just like in the case of the vaccine. They were very hesitant about it and were not ready to accept it because these people are more traditional. They mostly follow the traditions and cultures of their elders and ancestors and for them, vaccination is a change and a new thing. That is why they are resistant to it and remained resistant because of these myths and misconceptions and they only got vaccinated

by force from the government. In contrast, the people in Islamabad were not greatly following these myths but they also heard them, and this slightly impacted their perceptions against vaccinations. Their behaviors got more impacted by conspiracy theories rather than these myths and misconceptions. But some of the perceptions were not impacted and remained the same in favor of vaccinations.

In research areas, varied perceptions of people about COVID-19 vaccines exist depending on the locales, education, economic status, religion, and other socio-cultural factors. A considerable section mainly consists of the upper social stratum believed that coronavirus exists in real, and vaccinations are safe. Some of the respondents also considered the pandemic as propaganda of either developed countries or powerful elites of the world to have control all over the world and to kill Muslims. Their agenda is to minimize the population of the world. Due to accurate sources of information and illiteracy, a large portion of the population believed in the biological existence of coronavirus and denied its vaccinations that believed that it is a medicine to deliberately kill people. And do not trust on government that they have made alliances with western societies who are intended to kill them. That is why the government is now forcefully asking us to take vaccine doses. In my study the beliefs which are actually against vaccinations have been observed mostly in Narowal, but their perceptions were also fluctuating either against it or in favor of this with time. In Islamabad, it has been observed that the perceptions of local people are mostly in favor of vaccines, but they were also not sure initially and they were shaped up gradually in favor of vaccinations.

Coronavirus being a global threat was an inciting panic for people as novel and highly contagious. There have been a variety of perceptions generated through various sources. People differ in their belief systems about the virus and its vaccinations and behave accordingly. Culture being a significant part of each society serves as a way of understanding vaccines. The comparison of perceptions between the local people of a metropolitan city and a semi-urban city was aimed to get diversified data. I have got the diverse ideas and perceptions of people for COVID-19 vaccinations and through which factors and socio-cultural constraints they have made or changed. I have analyzed that these diversified ideas and perceptions were mainly dependent on their localities, backgrounds, education level, and socio-economic statuses and cultures.

Way Forward / Recommendations

The great hesitancy for COVID-19 vaccinations has been observed among people. There are several socio-cultural factors which creates hesitancy among people. It is realized that people get information regarding vaccines from multiple spheres, which creates confusion in the minds of people. Some encourage them in favor of this and some content discourage them through multiple conspiracies and socio-cultural constraints. So, a unifosrm genuine source of information should be given to provide accurate information about vaccines and COVID-19.

Vaccines should be cheap as it was not initially, and there should be proper availability of vaccinations for the people in remote areas too. Vaccination camps should be held near those people who cannot afford to travel and take vaccine jabs.

Along with availability people should be taught about its benefits, educate them and ask them not to believe and spread myths and misconceptions about it, that it is harmful or intended to kill them. Education is necessary so that people take vaccines with all trust and willingly not forcefully.

World health organization should keep an eye on the content which spread on social media and misinformation which misguide people against vaccines; it helps in the spread of virus and affects behavior of people towards vaccines. This content should be immediately removed from the social media because these days' people use social media a lot and it also affected the behaviors and perceptions of people for vaccinations according to my study too. It can only be possible if there is a proper check and balance on the content which social media is producing. So that in the case of another emergency health crisis there should not be any medium of spreading false information and negative health behavior should be avoided.

Religious teachings can also play an important role to minimize hesitancy among people. Because institution of religion has a major role in determining the life activities and response towards pandemic and vaccines, Ulemmas and religious authorities can advise and give proper message to public that it is allowed in Islam/religion i.e. there is no harm in it. They should manage the religious duties which develop positive attitude for vaccinations among people and to control virus transmission because maximum people believe in them.

Glossary

Ulemma	Religious Scholars
Ahl e Sunnah	A sect of Islam which strictly follows sunnah
Shariah	Islamic Law
Hadees	Sayings of Prophet (PBUH)
Ayat	Verses in Quran
Baa Jammāt	As a group/ collectively
Teeky lga lga k mar rhe hain	Deliberately killing people with injections
Wabaa	Pandemic
Qehwa	A drink made from organic ingredients
Khana Kabah	House of God (ALLAH)
Qayamat	Day of Judgment
Kafir	Non-Muslims
Goray	White people
Islam	Religion of Muslims
Namaz	Prayer of Muslims
Chehlum	the fortieth day
Juloos	Procession
Barghas	Prayer places of Shiites
Jumma	Friday
Eid	A Festival
Fiqhas	Muslim jurisprudence
Ijtehad	Best efforts
Lemon Pani	Lemon water
Landa bazar	a market of secondhand goods

Ye sb bakwas hai

this is all absurd

Choomna

An act of kiss

Appendix - Interview Guide

Questions from local people for their perception

- Who first introduced you to vaccine for COVID-19?
- How do you perceive vaccination?
- What do you think about vaccine? Do you find it safe?
- Which social barriers you faced when you first think about vaccine?
- How much Governmental measures enforce you to get vaccinated?
- **Role of media in shaping up perceptions and behaviors**
- How mainstream media encourages you to get vaccinated?
- Have you ever seen any content on social media which discourages you to accept vaccines?
- How much you get motivated after watching the highlights of COVID-19 on media?
- Did you ever feel scared after watching the increasing cases of corona and death rates on media?

Sociocultural barriers for the people

- Which type of hesitancy you feel for vaccination? Is it due to religious beliefs or social pressure?
- How traditional ideas and myths create resistance for vaccination?
- Have you ever get influenced by any myth against vaccination?
- Which type of myths and misconceptions you heard mostly?
- Do you feel doubt on the existence of COVID-19?
- What are the reasons of ambiguousness? Do you think it's a political propaganda?

Questions about conspiracy theories

- Do you think that COVID-19 has been deliberately spread among people?
- How much you believe on conspiracies against vaccination and COVID-19?
- Which idea of conspiracy theorists you believe the most and why?
- Have you ever experienced any serious illness after getting vaccinated?
- Are you vaccinated? If yes, then what/who motivated you to vaccinate yourself?
- Are you vaccinated? If no, then what is the reason behind it?

- Do you think everyone should have correct information for vaccination?
- Who would you prefer for having proper knowledge for vaccination?
Conspiracy theorists or who encourages it?
- Did you ever feel scared for getting any medical assistance during pandemic?

Questions from Ulemma

Age, gender, Area, and Sect will be asked

- What is your perception for COVID-19 vaccines?
- Is there any Fatwa formulated in your sect regarding COVID-19 vaccines?
- What does the *Shariah* Law say about vaccination?
- What does science say about vaccination according to your knowledge?
- What is your perception about scientific knowledge while considering religious teachings?
- Do you give any recommendation to combine both schools of thoughts and to satisfy people religiously and scientifically?
- Is there any guidance in religion to find a cure for any pandemic or epidemic?
- Is there any argument in religion against vaccination or vaccine is haram?
(Any Qur'anic verse or Hadees)
- Do you think people around you deliberately not getting vaccinated for their personal concerns on the name of religion?
- Are they following traditional ideas and myths and take them as religious constraints?
- What do you say about Governmental measures/SOPs to keep people protected from this virus?
- Do you think that social distancing should not be followed because it is affecting the people to pray as a group (*Baa Jamait*)?
- What is your opinion about the conspiracies against vaccination?

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