

COVID-19 VACCINE HESITANCY AMONG PEOPLE  
IN PAKISTAN: AN EXPLORATORY STUDY



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To my parents, brother and friends

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## ABSTRACT

Despite covid vaccine being accessible to millions of people around the world and efforts being made by governments to ensure vaccination of their population, certain barriers have hindered this process. One of the most difficult barriers is hesitancy towards covid vaccine. The present study explores phenomenon of vaccine hesitancy in individuals who chose to remain covid unvaccinated amidst the deadly covid pandemic. In order to delve into the beliefs, experiences and opinions of vaccine hesitant people, an interview guide was developed and in-depth, semi-structured interviews were conducted. Data was organized using interpretative phenomenological analysis which included; opinions of covid unvaccinated people about covid vaccine, reasons for not getting vaccinated against covid, reasons for people to get covid vaccine according to unvaccinated individuals, Pakistani government urging people for covid vaccine, acceptance of covid vaccine in unvaccinated individual's locality, experiences being covid unvaccinated during covid pandemic, skepticism and confusion regarding covid vaccine and role of covid vaccine in ending corona virus pandemic. Findings of this research can be used as a reference in policy making regarding public health decisions by various health organizations. Such researches can not only contribute to current work but also help shape policies related to vaccination in future endemics and pandemics.



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**LIST OF ABBREVIATIONS**

<b>APA</b>	American Psychological Association
<b>WHO</b>	World Health Organization
<b>CDC</b>	Center for Disease Prevention and Control
<b>FDA</b>	U.S. Food and Drug Administration

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## CHAPTER 1

### INTRODUCTION

#### 1.1 Background

The corona virus pandemic is arguably one of the greatest and most difficult health crises of 21st century. According to The Center for Systems Science and Engineering at John Hopkins University (2020), since its arrival, corona virus has resulted in approximately 219 million infections and 4.5 million deaths around the globe, as of September 2021. They also reported that this rate of infections and casualties is only increasing as time passes by. As of 2022, multiple countries have experienced multiple waves of covid as it continues to mutate (Wassenaar et. al., 2022) and government policies dealing with the pandemic shift (Hale. et. al., 2021), each wave causing varying degrees of infections and deaths.

World Health Organization (2021) reported that almost half billion people in the world have become poor due to immense amount of money they had to spend on Covid related health costs. According to World Bank (2020), several countries are in danger of experiencing recession due to Covid-19 related national lockdowns and limited international economic trade.



Hospitals and medical facilities are experiencing capacity issues and shortage of medical supplies (Grimm, 2020). Geven and Hasan (2020) reported that school closures are costing students their education, learning and ultimately, future careers. Many people's mental health has suffered as the sudden onset of pandemic, uncertain prognosis of the virus and preventive measures such as social isolation have caused people to become lonely, depressed, fearful and anxious (Pedrosa et. al., 2020).

The virus, that has caused such chaos in most facets of life in a brief span of two years, was first reported in the city of Wuhan, China, in December of 2019 (World Health Organization, 2020a). By the end of December 2019, China had reported 44 cases of infections to World Health Organization (World Health Organization, 2020b). While the number of cases increased, the causing agent of the novel virus remained undetected. According to a study by Zheng (2020), in the initial detected cases, laboratory tests revealed that the novel virus presented common symptoms associated with pneumonia such as damage to lungs, cough and difficulty breathing. Other common symptoms included fever, flu and body aches.

Li et. al. (2020) reported that in early January of 2020, Chinese investigation teams and medical scientists isolated and identified the virus strain as Novel Corona-virus Infected Pneumonia (NCIP). The virus was later recognized as part of Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV), a group of viruses that had previously caused two global outbreaks. Between years 2002 to 2004, Severe Acute Respiratory Syndrome (SARS) outbreak occurred and caused about 800 deaths worldwide (Carvalho et. al., 2021). Middle East Respiratory Syndrome (MERS) outbreak started in 2012 and

continuing at present has caused approximately 900 deaths (Zhang et. al., 2021). However, the third and recent outbreak of SARS-Cov virus i.e. SARS-Cov2 has proven to be the deadliest yet based on global mortality rate and the scale at which it has spread (Feehan, 2021).

By the beginning of March of 2020, China had already reported 2,761 deaths according to the 41st WHO situation report (World Health Organization, 2020c). The virus had quickly begun spreading to other countries with number of infections crossing 1,000 people in some regions. By March of 2020, Italy reported 10,149 total cases, Iran reported 8,042 cases, Republic of Korea reported 7,755 cases, France reported 1,774 cases, Spain reported 1,639 cases and Germany reported 1,296 cases according to 51st WHO situation report (World Health Organization, 2020d). By 11 March, 2020, the epidemic only causing concern in some regions of Asia had been declared a pandemic by WHO (Cucinotta & Vanelli, 2020).

With the virus now declare a pandemic, many countries began taking strict measures to minimize the spread of virus. These measures included maintaining social distance of 6 feet, wearing masks, and avoiding public gatherings (United Nations Children's Fund, 2020). Even more tough and intense measures were taken by countries to prevent the virus from entering their realm. Sharun et. al. (2020) report that cross-border transportation of virus via international flights aided the spread of Covid. Thus, international flights were banned, and borders were closed for cross-country travelling. Apart from international travel restrictions, curfews and limitations on movement of citizens within cities and countries was also implemented with much strictness (Perra, 2021).

These restrictions led many sectors of society to experience risks and losses. Countries going into full and partial lockdowns risked threat to businesses. According to a report by International Trade Center (2020) about 55% of the small business holders responding in the report experienced difficulty in their business due to Covid. Education was also impacted especially in developing and underdeveloped regions where they had to switch to online mode of learning with limited resources and lack of training (Schleicher, 2020).

Tourism was another major industry which suffered at the hands of the pandemic restrictions as travel bans and general fear of infection caused people to avoid travelling (Ugur & Akbiyik, 2020). People's mental health was also influenced as in a study conducted by Aragona et. al. (2020) reduction in number of people accessing mental health services was observed during the pandemic as people were stuck in their homes. These are only a few examples of how covid related restrictions caused influence on a larger scale as well as individual level.

However, these preventive measures, including travel bans and social distancing, were necessary to contain the spread of pandemic. But, they were only temporary and preventive solutions. A durable solution was needed to ensure that future waves of infections could be prevented. According to the European Centre for Disease Prevention and Control (2021), the long-term solution to reduce spreading of virus was to conduct mass vaccination and ultimately develop herd immunity among the population against covid-19 virus.

According to Desai and Majumder (2020), herd immunity is the point when a significant part of the population becomes immune such that the chances of disease

spreading are reduced. At what point herd immunity is achieved depends on the type of virus. According to Randolph and Barreiro (2020), about 67% of the population in each country needs to be vaccinated in order to reach herd immunity for corona virus.

Frederiksen et. al. (2020) opine that with development of covid-19 vaccination, mass vaccination can be conducted and goal of reaching herd immunity can be obtained at a faster pace.

World health organization set the goal of achieving 70% of vaccination rate in all countries by June, 2022. However, only 52 out of 142 countries were able to achieve the milestone by May, 2022 (Oxfam International, 2022). This may be ascribed to barriers that may pose a threat to vaccination efforts. In a study conducted by Pablo et. al. (2022), 60% of the sample in the study attributed refusal to get vaccine to Covid vaccine hesitancy. Gerretsen et. al. (2021) also identified vaccine hesitancy as a major barrier in vaccination of minorities in America. Crawshaw et. al. (2021) identified vaccine hesitancy as one of such barriers. Covid vaccine hesitancy has caused hinderance in vaccination efforts which has ultimately led to delay in achieving mass immunity against the pandemic (Saied et. al., 2021).

Vaccine hesitancy is defined as “*The reluctance of people to receive safe and recommended available vaccines*” (Machingaidze & Wiysonge, 2021). Vaccine hesitancy differs from concept of anti-vaccine beliefs as vaccine hesitant individuals, at some point, may choose to reconsider their decision to remain unvaccinated (Dube & McDonald, 2022). Vaccine hesitancy has been considered a major barrier in Covid-19 vaccination among population and ultimately inability to prevent Covid-19 related infections and deaths (Nossier, 2021). In a study conducted by Harapan et. al. (2021) on vaccine

hesitancy in different countries, Pakistan was found to be the country with highest rate of vaccine hesitancy. Among Pakistanis, vaccine hesitancy is influenced by faulty beliefs and myths (Muhammad et. al., 2022).

The concept of beliefs influencing health related decisions can be discussed in the light of models such as Health Belief Model developed by Rosenstock et. al. (1966). According to the model, the beliefs and perception regarding diseases and its preventive methods influence our health-related behaviours. According to Limbu et. al. (2022), people's beliefs about Covid-19 vaccination may influence motivation to receive vaccination with irrational beliefs increasing motivation to remain unvaccinated. These irrational beliefs among other factors have been explored in this research. Another model that explains role of beliefs in vaccine hesitancy is 5C Psychological Antecedents of Vaccination Model by Betsch et. al. (2018). According to the model factors such as confidence in vaccine's effectivity in preventing disease can influence our decision to get vaccinated. These model have been used as guide for developing interview questions for this study.

## **1.2 Research Gap/ Rationale**

This study aimed to explore the psychological beliefs of people who refuse to get vaccinated. Despite numerous social restrictions, deathly nature of virus and open and free accessibility to Covid-19 vaccination, the refusal and the hesitancy of some parts of the population regarding immunization is a cause of concern. While some researches have surveyed factors that can contribute to anti-vaccination and vaccine hesitancy beliefs, there exploration in detail, especially the nature of such beliefs, there origin and the factors maintaining them require detailed exploration.

### ***1.2.1 Theoretical Gap***

In previous researches, Health belief model developed by Rosenstock (1966), has been frequently used to explain health related behaviours including vaccine acceptance and hesitancy. Since its development in 1966, it is being used to explore and explain various activities and intentions related to diseases. The model has gained popularity in Covid-19 related researches as well. Ruqia et. al. (2021) used health belief model to explain community safety behaviour in Pakistan. In a research by Tesema et. al. (2021) health belief model was used to study preventive behaviours regarding Covid-19 in Ethiopian students. Health belief model was also used to determine Covid-19 related preventive behaviours among Iranian population (Mirzei et. al., 2021).

Despite its popularity, the model has some limitations. According to LaMorte (2019), “*health belief model is more descriptive than explanatory*”. It may incorporate factors such as perceptual components, psychological components and barriers related vaccination but these components are not discussed in detail.

These limitations are addressed by comparatively contemporary theoretical models in research such as 5C Psychological Antecedents of Vaccination Model by Betsch et. al. (2018). According to a research conducted by Hossain et. al. (2021), 5C model had a slightly better predictive value in determining vaccine hesitancy compared to health belief model.

The 5C model categorizes five factors in determining how and why vaccine hesitancy exists among populations. These include confidence in vaccine, complacency, constraints, calculation and collective responsibility. According to Maxwell (2013), theories used in qualitative researches can bring into limelight points that a researcher may

miss otherwise. By using the 5C model as a guiding compass, richer and proper analysis of the interviews obtained from participants will be conducted.

In literature it was observed that more researches still rely on using Health Belief Model as reference as 5C model is still relatively new. In order to overcome this gap, along with Health Belief Mode, 5C model will also be used as a guide for developing interview questions.

### *1.2.2 Contextual Gap/Analysis*

With the use of models tailored to explore phenomena of vaccine acceptance and hesitancy, it provided a better understanding of questions that painted the contextual picture including how, why, when and who of vaccine hesitancy. It is evident through the literature review that answers to some of these questions were yet to be explored. In a research conducted by Neff et. al. (2021), 100 articles between 2000 to 2020 addressing vaccine hesitancy on online platforms were reviewed. It was found that only 3% of the researches were concerning the people who held vaccine hesitancy beliefs and attitudes. This is an important question that was addressed in this research by using interviewing individuals who held vaccine hesitant beliefs and analyzing their data using Interpretative phenomenological approach to understand the concept of vaccine hesitancy from their perspective.

Research on Covid-19 vaccine hesitancy in the context of Pakistani culture is also lacking in literature. In their paper titled 'COVID-19 Vaccine Hesitancy in Pakistan: A Mini Review of the Published Discourse', Khalid et. al. (2022) shared that there is a lack of research especially in-depth research into the phenomenon of Covid-19 vaccine

hesitancy in Pakistan. This contextual gap has been addressed in this study by using in-depth interviews for data collection and IPA for analysis.

### ***1.2.3 Methodological Gap/Analysis***

Since advent of the pandemic, many researches have attempted to explore factors that contribute to vaccine hesitancy. For example a research by Hafizh et. al. (2021) determined factors related to vaccine hesitancy in Qatar's population. Similarly, in a research on factors related to vaccine hesitancy among Turkish population conducted by Ikliisik et. al. (2021), a questionnaire was developed to collect data. According to Tremblay et. al. (2021), qualitative researches make up only a small portion of researches on Covid. Among the social distancing and lockdowns, the lack of qualitative researches is understandable. However, only relying upon quantitative methods including surveys and questionnaires limits discovery of new causes and themes that may contribute to vaccine hesitancy (Aw et. al., 2021).

The current research addressed this gap by using qualitative research method as a mode of data collection. IPA was used to extract new themes regarding the phenomenon that can not only contribute to the literature but will also add positively to the contextual understanding of this the concept of vaccine hesitancy.

## **1.3 Problem Statement**

The purpose of this research was to explore, in detail, the multiple factors including demographics, beliefs, attitudes, barriers and cultural norms that influence people to accept risky behaviours such as vaccine hesitancy over life-saving behaviours including vaccination and immunization.



#### **1.4 Objectives**

- To explore beliefs possessed by Covid-19 unvaccinated people in the context of a global pandemic.
- To develop insight into reasons for Covid-19 vaccine hesitant people to hold such beliefs
- Explore the influence of such beliefs on attitude of Covid-19 unvaccinated people towards Covid-19 vaccination.

#### **1.5 Research Questions**

- What beliefs are possessed by people refusing to get Covid vaccine during a Covid-19 pandemic?
- What are the reasons for Covid-19 unvaccinated people to hold such beliefs?
- How these beliefs affect attitude of unvaccinated people towards covid-19 vaccination?

#### **1.6 Significance of the Study**

The study contributed to the understanding of maladaptive health behaviours such as vaccine hesitancy, which endanger the lives of both self and others and are crucial to overcome in order to fight the Covid-19 pandemic. In order to develop an effective and promising strategy, a thorough and vast understanding of the problem needs to be grasped. In countries such as Pakistan, vaccination is still subjected to myths, faulty beliefs and pseudoscience-as is evident from the fact that Pakistan is one of the only two countries unable to eradicate polio (Asghar, 2020).

In order to tackle such ideas, people who hold them and spread them need to be interviewed, their perspective needs to be understood as well as the factors that contributed them i.e. the root causes.

Findings obtained in this research will greatly contribute in policy making regarding public health decisions. By understanding the phenomenon of covid vaccine hesitancy from the perspective of those who experience it, policy makers can tackle the actual issues and root causes that contribute to and maintain vaccine hesitant beliefs.

Along with supporting policy making process in current pandemic, such researches can also be used as a guiding tool in developing policies related to future pandemics by predicting population behaviour and developing, beforehand, strategies to address them.

A significant role of studies such as this will be to shed light and normalize issues which are not openly addressed in our society. Multiple vaccine hesitant participants shared that they could not openly talk about their reservations regarding vaccination. Through such researches, efforts can be made to develop forums on which such issues and reasons for hesitancy can be discussed without judgment and appropriate guidance be provided.

The present study also highlights the lack of proper awareness and education regarding covid vaccination process, lack of forums where questions may be asked, lack of campaigns on vaccine education in offices and universities. By acknowledging this gap, action can be taken to bridge the gap especially by taking guidance from those who require and demand education regarding matters such as vaccination process, its dosage, its making among other things.

And finally, such studies can help social workers and health workers to gain better insight into why some people chose to remain unvaccinated. By developing this understanding the professionals can provide better care and support to their patients and clients.

## CHAPTER 2

### LITERATURE REVIEW/ THEORETICAL FRAMEWORK

#### 2.1 Literature Review

The sudden and unexpected advent of corona virus caused disorder and confusion across the globe. Many countries, developed and underdeveloped alike, struggled to contain and fight a virus of novel and unpredictable nature as death toll began to rise rapidly with each passing day (Jones & Strigul, 2021). Some countries adopted pre-established and tested policy models such as Whole of Society Approach for Influenza virus developed by World Health Organization (2009) in their document; Pandemic Influenza Preparedness and Response: A WHO Guidance Document.

Association for Progressive Communications (2020) defines that adopting a whole of society approach is; *“to consider engaging multi-sectoral stakeholders and facilitate their active participation in the decision-making process to take appropriate measures together”* (para. 4). According to WHO (2009), whole of society approach involves multiple departments of a country including health sectors, non-health sectors, government, NGOs, public, business etc. in collaboration to develop a well-rounded and broader understanding of the situation and develop policies to manage it accordingly.

According to Dubb's (2020) article on application of whole of society approach across globe for management of Covid-19, he identified that nine services that the approach can address including; "Health, Defence, Law & Order, Finance, Transport, Telecommunication, Energy, Food, and Water". Three concerns addressed in this approach regarding nine services are readiness, response and recovery.

Policy models and approaches, despite ensuring some levels of management and prevention, could not promise the effective and long-term solution to stop the spread of Covid. More rigorous and permanent solution was required such as development of vaccines.

In the previously mentioned WHO publication *Pandemic Influenza Preparedness and Response: A WHO Guidance Document*, concerns regarding development and production of vaccine was called the most critical step during pandemic response. (World Health Organization, 2009).

Efforts to develop a vaccine for Covid-19 virus had begun as early as January 2020 when SARS-CoV-2 genetic sequence was isolated and made available to the public on online forums such as GenBank (Thanh, 2020). In a race against time, pharmaceutical giants such as AstraZeneca, GlaxoSmithKline, Moderna etc. began working, competitively as well as collaboratively, to develop an effective vaccination against Covid-19 virus. Government lead initiatives such as Operation Warp Speed in America invested billions of dollars in research and production of Covid-19 vaccines (Kim et. al., 2021).

According to U.S. Food and Drug Administration the first step in developing any vaccine is research as reported by Center for Biologics Evaluation and Research (CBER, 2021). This step was overcome partially as, according to Weiss (2020) corona virus is

being studied in laboratories since 1930s. She has been studying corona virus and its variants since 1970s and detailed her findings in paper titled *Forty Years with Corona Virus* which was published in *Journal of Experimental Medicine*. She shared important details such as the genomic structure of Sar-Cov virus, various ways in which it has infected the population and how observations from two SARS-Cov instigated pandemics of SARS and MERS provided a good foundation for vaccine development (Weiss, 2020).

Next step in vaccine development involves pre-clinical trials of candidate vaccines on non-human subjects. In a pre-clinical trial study conducted by Corbett et. al. (2020) mice were injected with SARS-Cov2 mRNA sequence. Results showed production of antibodies that fought against infections of lungs and nose in the mice. After successful pre-clinical trials on animals, efficacy of vaccine in human subjects became the focal interest.

First phase of clinical trials involved testing vaccine on a small sample of population. A study conducted by Sadoff et. al. (2021) and funded by Johnson and Johnson studied the candidate vaccine, Ad26.COV2.S in 805 screened volunteers. The results indicated production of antibodies in 90% of candidates after administration of first dose. Side effects were of mild intensity and involved myalgia, headache, fever, fatigue, headache, nausea and pain at site of injection. Vaccines that successfully completed first phase of clinical trials continued further trials including more diverse populations.

Pfizer-BioNTech COVID-19 became the first vaccine to successfully complete all three phases of clinical trials, gaining FDA authorization for emergency use on 11 of December, 2020 (FDA, 2020). According to Covid 19 vaccine tracker, an organization run by McGill University, Canada which provides updates on Covid vaccine development, 70

vaccine candidates have entered phase 3 of clinical trials as of April 2022. 37 Covid vaccines have been approved including 10 approved by WHO for emergency use as of April 2022.

(Covid-19 vaccine tracker, 2022).

Despite accomplishing the remarkable feat of making multiple Covid-19 vaccinations available and accessible to the common man in most countries, the number of infections and deaths are increasing at an alarming rate having caused thirteen thousand deaths globally at the peak of the February wave in 2022 (Our World in Data, 2022). It is a question that bears asking that why the virus continues to spread at such rate even with restrictive and preventive measures have been imposed globally (United Nations Children's Fund, 2020) as well as availability of clinically tested and FDA and WHO approved vaccines (Covid-19 vaccine tracker, 2022).

One explanation for this is vaccine hesitancy among people regarding Covid vaccination. In a study conducted by Chaudhuri et. al. (2020) on ethnic and racial minorities in UK, it was found that they had higher Covid related mortality rate as well as higher rate of vaccine hesitancy among the British population. In another study conducted by Mesa et. al. (2022), it was found that countries with high vaccine hesitancy have a 7.6 higher mortality rate.

Sage Working Group on Vaccine Hesitancy defines it as: “*vaccine hesitancy refers to delay in acceptance or refusal of vaccination despite availability of vaccination services*” (MacDonald & Sage Working Group, 2015). Vaccine hesitancy has been considered one of the ten threats to global health in 2019 by WHO and a major barrier in

failure to control preventable diseases such as polio and measles (WHO, 2019). Vaccine hesitancy has also been considered a barrier in Covid vaccination among population and ultimately inability to prevent Covid-19 related infections and deaths (Nossier, 2021).

This behaviour is being observed around the globe. In a research conducted by Lazarus et. al. (2020) data related to acceptance of vaccine was collected from 19 countries.

While some countries, such as China, expressed high acceptance rate of more than 80%, some countries expressed alarmingly low rate of acceptance such as Russia where 40% of the population expressed hesitancy related to vaccination. In Finland, vaccination acceptance rate dropped from 70% to 64% between April and December, 2020 (Hammer et. al., 2021). In America, a poll conducted on May 2020 and involving 1056 participants, 31% of participants were not sure if they will get vaccinated while 20% completely refused to get vaccinated (Neergaard & Fingerhut, 2020). In Thailand, a study involving interviews with Thai senior citizens between June and July, 2021 revealed that 44.3% participants expressed vaccine hesitancy (Thanapluetiwigong et. al., 2021)

Vaccine hesitancy and vaccine acceptance among population can be attributed to the beliefs they hold about vaccines (Magadmi & Kamel, 2021). According to the Health Belief Model developed by Rosenstock (1966), our beliefs influence health related behaviours in two ways: the beliefs held regarding how threatening the virus is; and the beliefs held regarding how effective the proposed health behaviour e.g. vaccine is against the disease (LaMorte, 2019)

One belief causing skepticism about proposed health behaviour in fighting corona virus is the belief if whether Covid vaccines are safe (Bacon & Taylor, 2021). According to



global weekly polls conducted by Morning Consult on November, 2021 and involving 15 countries, the fast pace at which clinical trials took place for Covid vaccine development is one of the top reasons people in many countries are hesitant to get vaccinated (Shelburne, 2021).

Despite multiple clinical trials taking place to ensure efficacy of Covid-19 vaccine, it has not been free from skepticism. Covid-19 vaccine is the vaccine developed in shortest span of time in the history of vaccine development (Cohen, 2020). This rapid production of Covid-19 vaccine has created doubts in public about its safety and side effects (Norton healthcare, 2021).

Besides the time duration of Covid vaccine development, the nature of origin of the virus is another factor contributing to vaccine hesitancy. In one study conducted by Salali and Uysal (2020) involving sample from UK and Turkey, vaccine hesitancy was associated with belief regarding origin of Covid-19 virus. People who believed the vaccine to have been originated in a lab tended to be more vaccine hesitant compared to participants who believed it to be of natural origin.

Factors independent of the virus or vaccination itself have also influenced vaccine hesitancy. These include social factors such as religiosity which has been also associated with vaccine hesitancy. Religious people often hesitate to get vaccinated, by virtue of being a product of scientific work, is unnatural and harmful to what God has already created. Such people hold belief that God will protect them based on their good morals rather than preventive measures and medicines. These are the kinds of beliefs Cocoran et. al. (2021) found among Christian nationalists in USA who refused to get vaccinated.

In countries like Pakistan, religious leaders are playing a persuasive role in causing vaccine hesitancy among the population by spreading beliefs such as the vaccine has been made by West to make Muslims impotent or that the vaccine is useless as God will protect who He wills (Kanozia & Arya, 2021). Along with religious leaders, other socially influential figures such as politicians have also caused Pakistanis to mistrust Covid-19 vaccines (Khan et. al., 2020).

Along with social factors, medical concerns are also making people vaccine hesitant. Some people hold the belief that vaccine may negatively affect the body's natural immune response (Center for Economic Research in Pakistan, 2021). Contributing to this myth was the observation of data which indicated that Corona virus infections were being reported at a higher rate in Western countries and South Asian countries appeared to be more immune to the infections. A research conducted by Gupta and Misra (2020) agreed with this observation but concluded that it may have more to do with genetics rather than immunity.

Misinformation through social media applications such as Twitter, Facebook and WhatsApp has also caused both literate as well as illiterate people in Pakistan to question the efficacy and safety of Covid-19 vaccine (Firdous, 2020). In general, illiterate people have been influenced more by misinformation. In a research conducted by Salman et. al. (2021) on Covid-19 awareness among illiterate population in Punjab region of Pakistan, it has been found that of 394 sample, about 52% people believed Covid-19 not to be a severe disease, 46.2% thought it was not necessary to consult medical professionals for treatment and 23.4% were of the opinion that they would not take Covid-19 vaccine even if it was available. In the same research, 214 participants believed that natural remedies and herbs can be used to treat Covid-19.

In Pakistan, such beliefs regarding vaccine hesitancy have caused only half of Pakistan's population i.e. 120 million out of 220 million to be vaccinated as of April, 2022 (NCOC, 2022). This is despite the fact that a year ago, Pakistan became the first country to receive vaccines from China in February, 2021 (Gul, 2021).

Pakistan's government had a rigorous approach towards ensuring mass immunization. Special organizations such as National Command and Operation Center (NCOC) have been established for the sole purpose of vaccinating as much of the population as possible. Strict restrictions have been imposed on access to basic necessities such as pension, pay, schooling, entrance to markets etc. for unvaccinated people (Sajid, 2021). Despite these strict restrictions, Pakistan has gone through five waves of Covid-19 infections resulting in a total of 29,000 deaths as of January, 2022 (Siddiqui & Junaidi, 2022).

As discussed previously by Chaudhuri et. al. (2020) and Mesa et. al. (2022), Covid vaccine hesitancy correlates with covid caused mortality rate. Thus, addressing vaccine hesitancy and the beliefs that promote it are a major cause of concern. This concern has been addressed in this study by directly discussing with covid unvaccinated individuals their beliefs, ideas, questions and psychosocial factors that have caused them to remain unvaccinated during a deadly pandemic.

## **2.2 Theoretical Models**

### **2.2.1 Health Belief Model**

Health Belief Model was developed by Rosenstock (1966) to explore reasons as to why people take up or refuse to seek health related behaviours. According to the model, a

person's health related behaviour is determined by how they view the barriers and benefits of health behaviour.

The model lists six factors that influence health behaviour. These are: perceived susceptibility i.e. perceived risk of developing an illness, perceived severity i.e. perceived seriousness of an illness, perceived benefits i.e. pros of engaging in a health behaviour, perceived barriers i.e. perception of person regarding behaviours that may stop him from acquiring health behaviour, cue to action i.e. a specific trigger that can compel that person to take health action and self-efficacy i.e. person's perceived ability to perform the health related behaviour successfully. (LaMorte, 2019)

### ***2.2.2 5C Psychological Antecedents of Vaccination Model***

The 5C model was developed by Betsch et. al. (2018) in order to explain what factors cause people to accept vaccine or develop hesitant attitude towards them. The model is an extension of 3C model developed by SAGE Working Group on Vaccine Hesitancy in 2011. According to the 3C model, three factors i.e. complacency, confidence in vaccine and convenience influence vaccine hesitancy in a population (MacDonald & Sage Working Group, 2015). The 5C model added two more factors i.e. calculation and collective responsibility. In addition, the term 'convenience' has been replaced with 'constraints'.

According to MacDonald & Sage Working Group (2015), confidence in vaccine includes four factors: does the individual find vaccine to be safe, how much individual trusts the vaccine to be effective, is the system distributing vaccine trustworthy and trust regarding the policy makers who promote vaccines.

People with high confidence are more likely to engage in vaccine acceptance related behaviours.

Complacency is determined by how dangerous the virus is perceived to be by an individual. People with high complacency consider the virus as not dangerous and will be more hesitant to get vaccinated as they may deem it unnecessary to receive vaccine (Razai et. al., 2021).

Constraints involve physical barriers that are not in control of the individual such as difficulty accessing vaccine, geographical location, unavailability of vaccine in a location, language difference, unaffordability etc. (Wismans et. al., 2021).

Calculation is the interest an individual takes in learning and gaining education as well as comparing costs and benefits of getting vaccinated. High calculation can result in both vaccine hesitancy or vaccine acceptance depending on the type of content the individual has access to. Betsch et. al. (2018)

Collective responsibility is defined as the motivation of an individual to get vaccinated in order to protect others from the disease. Greater the sense of collective responsibility among a group of people, lesser will be the change of the virus spreading among the community. Betsch et. al. (2018)

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 Research Epistemology**

This study is based on an interpretive perspective as the main subject of this study is to explore how unvaccinated individuals interpret Covid vaccines and vaccination behaviour. This was explored using in-depth interviews to understand individual and subjective opinions and highlight various themes that exist related to the phenomena. As interpretive approach involves exploring subjective and individualistic experiences (Barbara & Kathleen, 2016), in-depth interviews were used as data collection source in the study.

#### **3.2 Research Approach**

The research approach for this study was inductive. In depth interviews were taken from the sample and the data was analyzed repetitively for observations. Interpretative phenomenological approach was used to develop themes, super-ordinate themes and

subthemes. Interpretative phenomenological approach was appropriate for this study as the aim was to explore, in detail, the beliefs and experiences of individuals who possess vaccine hesitancy and choose to remain unvaccinated in the context of a novel virus induced pandemic. According to Smith (2009):

The approach is phenomenological that involves detailed examination of the participant's experiences with a phenomenon; it attempts to explore personal experience and is concerned with an individual's perception or account of an object or event, as opposed to an attempt to produce an objective statement of the object or event itself (p. 53).

### **3.3 Research Strategy**

This study used exploratory strategy of investigation using the qualitative method. According to Merriam (2009), "*Qualitative researchers are interested in understanding the meaning people have constructed, that is, how people make sense of their world and the experiences they have in the world*". The objectives of this research required a design that had qualitative aspects as well as was exploratory in nature as it demanded a detailed exploration of the research questions. In this research, in-depth interviews were used to collect data.

In-depth interviews are used when detailed opinions, thoughts and experiences are required as part of the data for research (Boyce & Neale, 2006). The interview type used in this research was semi-structured. According to Mathers et. al. (2000), semi-structured interview is the most appropriate kind of interview for an exploratory research where rich information is required.

### **3.4 Population and Sampling**

Purposive sampling technique was used to determine sample for data collection. According to Stratton (2021) purposive sampling is often used in qualitative research. It involves collecting data from members of population that are accessible on the basis of e.g. geography, contacts etc. (Frey, 2018). Purposive sampling is suitable for exploratory studies where sample usually involves a specific subpopulation which may be difficult to find (DeCarlo, 2018). All accessible regions were approached for data through personal contacts in various cities and google forms providing information about purpose of study were distributed to individuals fulfilling sample criteria. No specific amount of sample size was considered for data collection as according to Malterud et. al. (2015) the goal in qualitative research is to reach a saturation point. Data saturation is the point in data collection when themes emerging in the data become repetitive and no more new concepts can be discovered (Faulkner & Trotter, 2017). According to Clarke (2010) this point can be reached anywhere from a sample of three for a master's level research to 4 to 10 for a doctorate level research. For this research a sample saturation point was reached at 6 participants.

In this study, saturation point was reached at 6 participants (n=6). Population median was (M=25.16) and standard deviation was (Sd= 4.6). Sample consisted of three males and three females and ages of sample ranged from 22 to 28 years.

#### **3.4.1 Inclusion Criteria**

Individuals who had intentionally not received a single dose of covid-19 vaccine of any company were selected for this study. The participant had to possess vaccine hesitant



beliefs that convinced them to not get vaccinated. Only adults aged 18 and above were selected for participation in the study as they were able to make informed decision.

### ***3.4.2 Exclusion Criteria***

Individuals who had received any dosage of covid-19 vaccine were not included in this study. Individuals who held accepting beliefs regarding covid vaccine were also not considered. and Infants and adolescents below the age of 18 years were not considered for sample as their decision to remain unvaccinated may have been influenced by parents/guardians or any other adult influential figure.

## **3.5 Research Measures**

### ***3.5.1 Consent Form***

A consent form was provided to the participants in accordance with the APA ethical guidelines (American Psychological Association, 2017). The form included briefing points regarding research. The form also included information such as that the participant could ask questions about research, participant could leave study whenever and without providing a reason, and that they can access information about research progress and results. Information regarding recording of interviews and the permission for consent was also mentioned on the form. The form required participant's signature or thumb print in case of illiteracy. The form was made available in the native language of Urdu for participant's convenient understanding.

### **3.5.2 Data Sheet**

A data sheet was given to the participants to fill in to collect data related to demographic variables. These variables have been selected based on previous researches done on Covid-19 vaccine hesitancy and include variables such as age, gender, education, socio-economic class and ethnicity, occupation and previous medical illness.

### **3.5.3 Interview Guide**

An interview guide was developed which involved open-ended questions to gather data for in-depth interviews. A pool of 20 to 30 questions was generated based on literature review as well as vaccine hesitancy related models such as the Health Belief Model by Rosenstock (1966) and 5 components of Psychological Antecedents of Vaccination Model which included factors related to vaccine confidence, complacency, constraints, calculation and collective responsibility (Betsch et. al., 2018). With guidance of the supervisor discussion and deliberation was done upon the pool of items and they were narrowed down to 9 semi-structured questions. the questions were formed in native language of Urdu for convenience of participants.

## **3.6 Data Collection and Procedure**

Data was collected in the form of semi-structured interviews. An interview guide was used to maintain consistency in interview and probing was done to illicit detailed data from participants. Data was collected via phone calls as after deliberation and reviewing CDC guidelines (Center for Disease Control and Prevention, 2022), it was found appropriate not to interact face to face with unvaccinated individuals as it posed danger to become infected with covid.

The procedure consisted of following four phases:

### ***3.6.1 Phase 1***

The study was reviewed by ethical committee in order to determine if it met ethical requirements of the university ethical board. After approval was given, study proceeded to the next phase.

### ***3.6.2 Phase 2***

In this phase, instruments for study were developed including consent form, demographic sheet and interview guide were developed. Consent form was developed in accordance with university's ethical guide. Demographic sheet was developed by reviewing previous researches conducted on Covid-19.

Interview guide was developed based on previous researches on Covid-19 as well as theoretical models related to vaccine hesitancy such as 3C model of vaccine hesitancy (MacDonald and Sage Working Group, 2015), Health Belief Model by Rosenstock (1966) and 5C Psychological Antecedents of Vaccination Model (Betsch et. al., 2018). The development process involved a pool of 30 semi-structured questions which were narrowed down and refined to 9 questions. The questions were semi-structured in order to ensure obtaining rich data for the study's exploratory nature. The guide was developed in Urdu language for better understanding of the participants. The guide was reviewed by a senior clinical psychologist to check for double barreled, biased or leading questions.

### ***3.6.3 Try out Phase***

Test interviews were conducted and changes were made to interview guide according to the data extracted from the interviews. Questions that didn't provide rich information or led to biased probing were removed from the guide.

### ***3.6.4 Phase 3***

Data collection was done in phase three of study. The process involved taking consent from participants and debriefing them about study using consent form and brief verbal debriefing session. Once consent was taken, their demographic information was obtained using demographic sheet. Then data collection began with conducting in-depth interviews with participants. Interviews were conducted via phone call as face to face interaction with unvaccinated individuals posed health risk according to CDC guidelines (Center for Disease Control and Prevention, 2022).

Interviews were recorded with participants' consent. Average length of interview was 60 to 120 minutes. Interviews concluded with expressing gratitude to participant for their participation. Afterwards, interviews were transcribed for data analysis.

### ***3.6.5 Phase 4***

The transcripts of in-depth interviews were analyzed using Interpretative Phenomenological Analysis. Steps of IPA by Smith et. al. (2012) were used as guide for IPA analysis. The procedure involved reading and rereading transcripts. Exploratory notes were added on side margin and refined into emergent themes which were then eventually developed in to super-ordinate themes.

### **3.7 Data Analysis**

The data collected from interviews was analyzed using Interpretative Phenomenological Analysis. According to Smith et. al. (2012), IPA involves five steps. In step one, researcher familiarizes themselves with the data which involves reading the transcript carefully and continuously. This process involves going over the transcript again and again with the intention of identifying significant data.

Step two involves highlighting important data relevant to the research questions and objectives. Step three involves writing interpretation of the extracted relevant information.

Step four involves developing emergent themes and super emergent themes across the data.

Step five comprises of developing connection between the established themes.

### **3.8 Research Ethics**

Research proposal was reviewed by the departmental ethical committee in order to ensure that it met ethical standards of the institute. During research, a consent form was signed by all the participants who were interviewed. The aim and objectives of research were debriefed to the participants and they were informed to ask any questions they had regarding the research before the researcher obtained their approval to participate. Names of all participants were changed to labels in order to maintain their privacy. The interview recordings were kept confidential and not shared with anyone except with supervisor for guidance regarding data analysis.

## **CHAPTER 4**

### **RESULT**

This study was conducted with purpose of exploring beliefs and experiences of individuals who declined to receive Covid-19 vaccine during time of Covid-19 pandemic. In this chapter the results obtained from detailed analysis of in-depth interviews taken from unvaccinated individuals are discussed. The results were attained using Interpretative Phenomenological Approach.

**Table 4.1**  
*Demographics of Participants*

<b>Characteristics of Participants</b>	<b>Categories</b>	<b>Frequency</b>	<b>%</b>	<b>M</b>	<b>SD</b>
Age				25.16	4.6
Gender	Male	3	50		
	Female	3	50		
Marital Status	Married	1	25		
	Unmarried	5	75		
Qualification	BBA	1	16.6		
	BS Psy.	1	16.6		
	MS clinical psy.	1	16.6		
	BS Maths	1	16.6		
	BS Economics	1	16.6		
	M.com	1	16.6		
Occupation	Student	4	66.6		
	Teacher	1	16.6		
	Housewife	1	16.6		
Socio-economic Status	Middle class	6	100		
Ethnicity	Punjabi	6	100		
Medical illness	None	3	50		
	Pollen Allergy	1	16.6		
	Eczema	1	16.6		
	Hypertension	1	16.6		



**Table 4.2**

*Table of Super-Ordinate, Sub-ordinate themes and Emergent Themes for All Participants*

<b>Super-ordinate themes</b>	<b>Sub-ordinate themes</b>	<b>Emergent themes</b>
Opinions of Covid unvaccinated people about Covid vaccine	<p>Covid vaccine unnecessary for corona prevention</p> <p>Conspiracy theories related to covid vaccine</p>	<ul style="list-style-type: none"> <li>• People are safe without getting vaccinated</li> <li>• People were surviving even before vaccine was developed</li> <li>• I got covid while unvaccinated but still survived</li> <li>• Did not vaccinate and didn't get corona</li> <li>• Made to reduce Pakistan's Muslims population</li> <li>• Chip planted inside mind through vaccine</li> <li>• To gain control of other nations</li> </ul>
Reasons for not getting vaccinated against covid	<p>Lack of confidence in Covid vaccines effectivity</p> <p>Covid vaccine has side effects</p>	<ul style="list-style-type: none"> <li>• People getting vaccinated were still getting covid</li> <li>• Vaccine's effectiveness is not convincing</li> <li>• Everyone getting vaccinated experienced side effects</li> <li>• People who got vaccinated</li> </ul>

	<p>Alternatives to covid vaccine</p>	<p>reported body aches</p> <ul style="list-style-type: none"> <li>• Effect on menstruation</li> <li>• People getting vaccinated had fever</li> <li>• Experiencing weakness after getting vaccinated</li> <li>• Use of antibiotics against corona</li> <li>• Naturally having good immunity prevents from covid</li> <li>• Local sciences and traditions such as herbs, precious stones</li> </ul>
<p>Reasons for people to get Covid vaccine according to unvaccinated individuals</p>	<p>Avoid government regulations for unvaccinated people</p>	<ul style="list-style-type: none"> <li>• People got vaccinated to avoid government imposed restrictions</li> <li>• People got vaccinated due to issues with job, school and going to public places</li> </ul>
	<p>Other reasons for people getting vaccinated according to unvaccinated people</p>	<ul style="list-style-type: none"> <li>• People got vaccinated as a preventive measure against corona virus</li> <li>• People got vaccinated due to fear of death caused by Corona virus</li> <li>• People got vaccinated due to lack of access to</li> </ul>

alternative preventive  
measures

Pakistani government  
urging people for Covid  
vaccine

Reasons for  
government pushing  
people to get Covid  
vaccine

- Government pushed for vaccination in order to save country's economy
- To receive aid from WHO/ foreign countries
- For positive image building of country
- Don't agree with government restrictions
- Violation of right to make a decision myself regarding vaccination
- Apnee marzee honee chahye

Authoritarian approach  
of Pakistani  
government towards  
vaccination of public

Acceptance of Covid  
vaccine in unvaccinated  
individual's locality

- Community not in favour of vaccine
- People in my community are in favour of vaccine

Experiences being  
Covid unvaccinated  
during Covid pandemic

- Restrictions imposed
- Generated a fake certificate to avoid restrictions

	<ul style="list-style-type: none"> <li>• felt guilty for not being vaccinated</li> <li>• Feeling ethically obliged to tell people I am unvaccinated</li> <li>• Stigma associated with being unvaccinated</li> </ul>
<p>Skepticism and confusion regarding covid vaccine</p>	<ul style="list-style-type: none"> <li>• Many vaccines developed at the same time</li> <li>• Vaccine ingredients not known</li> <li>• How many doses of vaccine are effective</li> <li>• Vaccine came without testing or experimentation</li> </ul>
<p>Role of Covid vaccine in ending Corona virus pandemic</p>	<ul style="list-style-type: none"> <li>• Vaccine is somewhat effective in combating corona pandemic</li> <li>• Pandemic will end on its own</li> <li>• Vaccination will not end covid pandemic</li> </ul>

**Table 4.3**

*Table of Common/Recurrent Super-Ordinate Themes in All Participants*

Super-ordinate themes	P1	P2	P3	P4	P5	P6

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Opinions of Covid unvaccinated people about Covid vaccine	Yes	Yes	Yes	Yes	Yes	Yes
Reasons for not getting vaccinated against covid	Yes	Yes	Yes	Yes	Yes	Yes
Reasons for people to get Covid vaccine according to unvaccinated individuals	Yes	Yes	Yes	Yes	Yes	Yes
Pakistani government urging people for Covid vaccine	Yes	Yes	Yes	Yes	Yes	Yes
Acceptance Of Covid Vaccine In unvaccinated individual's locality	Yes	Yes	Yes	Yes	Yes	Yes
Experiences being Covid unvaccinated during Covid pandemic	Yes	Yes	Yes	Yes	Yes	Yes
Skepticism and confusion regarding covid vaccine	Yes	Yes	Yes	Yes	Yes	Yes
Role of Covid vaccine in ending Corona virus pandemic	Yes	Yes	Yes	Yes	Yes	No

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## 4.1 Themes

Analysis of transcripts of interviews produced various themes based on the participants' experiences and beliefs. eight super-ordinate themes and nine sub-ordinate themes were consistently mentioned in interviews of six participants. The super-ordinate themes include: opinions of Covid unvaccinated people about Covid vaccine, reasons for not getting vaccinated against covid, reasons for people to get Covid vaccine according to unvaccinated individuals, Pakistani government urging people for Covid vaccine, acceptance of Covid vaccine in unvaccinated individual's locality, experiences being Covid unvaccinated during Covid pandemic, skepticism and confusion regarding Covid vaccine and role Of Covid vaccine in ending Corona virus pandemic.

### 4.1.1 *Theme One: Opinions of Covid unvaccinated people about Covid vaccine*

The first theme details the views unvaccinated individuals held regarding Covid vaccine. Participants shared varying opinions. However, Participant 6 expressed that he did not hold any strong opinions regarding Covid vaccine due to lack of awareness which he attributes to Pakistan being a developing country:

"ویسے کوئی خاص رائے نہیں ہے اسکے بارے میں۔ خاص اتنا زیادہ تجربہ بھی نہیں ہے۔ ہو سکتا ہے یہ چیز اچھی ہو، ہو سکتا ہے یہ نقصان دہ ہو۔ ڈویلپنگ کنٹریز میں جیسے آپ جنتی ہیں لوگوں کے پاس اتنی زیادہ معلومات نہیں ہوتی تو اتنا زیادہ ایڈیا نہیں ہوتا۔ بیسیکلی میں طالق رکھتا ہوں جنوبی پنجاب سائیڈ سے، تو وہاں پر زیادہ تر ان پڑھ لوگ زیادہ ہیں۔ دیہات وغیرہ میں یہ چیزوں پر زیرو پرسنٹ بھی یقین نہیں کرتے۔"

Other participants' opinions that have been discussed under three sub-ordinate themes; Covid vaccine unnecessary for corona prevention and conspiracy theories related to covid vaccine.

#### 4.1.1.1 Covid Vaccine Unnecessary for Corona Prevention.

Unvaccinated individuals held the belief that vaccine was not necessary for survival based on their own experiences being unvaccinated during covid pandemic.

Participant 2 shared their experience with being unvaccinated and not being affected by their family all of whom had covid:

"جنہوں نے لگوائی تھی انکو بھی کوویڈ ہو رہا تھا میرے نہ لگوانے کے باوجود بھی کوویڈ ہوا سب کو۔ گھر میں لکن مجھے تب بھی نہیں ہوا تھا حالانکہ میں انکے ساتھ انٹریکٹ کر رہی تھی، کھاتی پیتی انکے ساتھ تھی۔ ما ما کوکورونا تھا وہ کھانا بنا رہی ہوتی تھیں اور انکے ہاتھ کا بنا ہوا کھانا کھا رہے ہوتے تھے، ساتھ بیٹھتے ہوتے تھے مگر پھر بھی نہیں ہوا۔ میرا چھوٹا بھائی جسکو کوویڈ تھا میرے ساتھ سوتا تھا مجھے تب بھی نہیں ہوا تھا۔"

Participant 3 shared that:

"بہت ٹائم بعد ویکسینیشن آئی تو پتہ ہے ایک پیک پر جا کے کورونا کم بھی ہو گیا۔ اور ویکسینیشن اس وقت تک ڈویلپ نہیں ہوئی جب بہت زیادہ ضرورت تھی، وہ بہت بعد میں آئی۔ اس وقت تک بہت سارے لوگوں نے اس چیز سے بہت سیکھ بھی لیا اور سروائیو بھی کر لیا کسی اور طرح۔ یہ بھی دیکھ لیا کہ اس چیز سے بچنے کے لیے جو اہم کردار ہے وہ کس چیز کا ہے (امیو ٹیٹی)۔ تو پھر یہاں سے میرے ذہن میں آیا کہ پھر ویکسینیشن کا مین رول نہیں ہے اور ابھی تک بھی سروائیو کرتی آئی ہوں تو آگے بھی کر لوں گی اس سے کوئی خاص فرق نہیں پڑتا۔"

Participant 4 shared their experience with being unvaccinated and getting covid:

میں نے ٹیسٹ کرایا جا کے لیکن پھر بھی میں تین چار دن بعد ٹھیک ہو گیا مطلب کوئی "دو دفا مجھے کوویڈ ہوا مسئلہ نہیں تھا مجھے، پھر میں کیوں ویکسین NIH سے ایسا لگواتا۔"

#### 4.1.1.2 Conspiracy Theories Related to Covid Vaccine.

Themes of conspiracy theories were discussed by participants and involved varying opinions. Some participants mentioned that they were aware of the theories but did not believe them.

Participant 2 mentions that such theories were discussed in their home:

"وہ گھر والے ڈسکس کر رہے ہیں ہوتے تھے لیکن اس سے کوئی فرق نہیں پڑتا لوگ ایسی باتیں تو کرتے رہتے ہیں۔ ایک تو تھی کے ویکسین لگوانے کے بعد ایک جو بے کے پہلے سے ہی یہ پروپیگنڈہ ہے پر بیرونی ممالک کا، فرسٹ ورلڈ ممالک کا کہ وہ ختم کرنا چاہ رہے ہیں ہماری آبادی کو۔"

Participant 4 believed this theory to be true. They said:

"آب و بات ایسی ہے کے باقی لوگ تو اسکو مزاق ہی سمجھیں گے لیکن جہاں تک میرا اپنا خیال ہے میں تو یہی سمجھتا ہوں کہ یہ سادیش ہے..... مطلب مسلمان اتنے زیادہ ہیں ہ پاکستان میں بھی باہر مملک میں بھی تو ختم کرنے کے لیے سادیش کی جا رہی ہے۔ کیونکہ دیکھیں اسرائیل یہودی جتنے بھی ہیں جو بھی ہیں تو مطلب کون ہوگا؟ وہی لوگ ہیں۔ مطلب انکو اس چیز کے جنگ تو نہیں ہے نہ کے مطلب پیسے کے جنگ ہو۔ وو چیز تو ختم ہو چکی ہے۔ اب تو جنگ اسی چیز کی ہے نہ کے لوگوں کو ختم کیا جائے بیسیکلی۔ پیسہ وہ چیزیں تو انکے پاس اتنی زیادہ ہیں کے وو انکو فرق ہی نہیں پڑھتا اس چیز سے۔"

Participant 5 talked about general perception regarding covid vaccine:

"ایک تو جنرل رائے ہے کے کچھ ممالک میں بیسیکلی ویکسین کو اپنا باقی ملک پر کنٹرول بڑھانے کے لیے نیکلا گیا یہ اسکو اس طرح سے استعمال کیا گیا ہے۔"

Client 6 shared the theory that some people believe Covid vaccination is an experiment by WHO:

میرے والد کے کالیگ نے بتایا کے ڈبلیو ایچ او کی کوئی چیز چل رہی ہے پوری دنیا میں۔ یہ انکی ایک ریسرچ وغیرہ ہے تو ہمارے اوپر کوئی ٹیسٹ وغیرہ کرنا چاہ رہے



ہیں۔ یہ ایک ایکسپیریمینٹ ہے وو دیکھنا چاہ رہے ہیں کے مستقبل میں یہ ویکسین موثر ”سابط ہو سکتی ہے یا نہیں“

#### **4.1.2 Theme Two: Reasons for Not Getting Vaccinated Against Covid**

In theme two, motives for why participants chose not to get vaccinated have been discussed. The reasons have been broadly categorized under three subordinate-themes; Covid vaccine did not prevent from getting covid, Covid vaccine has side effects and alternatives to covid vaccine. These have been discussed below:

##### **4.1.2.1 Lack of Confidence in Covid Vaccines Effectivity.**

Participants interviewed in this study were of the opinion that vaccine was not effective in preventing against covid.

Participant 1 said:

"میں نے ویکسین اس لیے نہیں لگوائی کی شورٹی نہیں دے رہے تھے کے اسکے بعد کورونا نہیں ہوگا۔ یہ ڈر تھا کے ویکسین لگوا لوں پھر کوویڈ ہو جائے۔"

They further added:

"ویکسینیشن اتھارٹی والوں نے خود ہی یہ بات کی ہے کہ اس سے 10 فیصد چانس ہے کہ آپ کو دوبارا کورونا نہیں ہو سکتا۔ تو میرے خیال میں یہ پرسنٹیج بہت کم تھی کسی کو مطمئن کرنے کے لیے۔"

Participant 2 shared their observation:

"ہمارے سامنے نیوز میں بھی آیا تھا کے لوگوں نے ویکسینیشن کروائی تو اتنے دنوں بعد بھی ان میں کورونا کی تشخص ہو رہی تھی۔ تو وہ بھی الگ کونٹرورسی بن گئی تھی کے یہ کیسی ویکسینیشن ہے۔ کچھ وقت بھی لگتا ہے میڈیکیشن کا اثر کرنے میں وہ جیسے ہماری کوئی نفسیاتی دوائیں ہیں جنہیں اثر کرنے میں دو ہفتے لگتے ہیں مہینہ بھی لگ جاتا ہے۔ لیکن پھر بھی اسکا یہ تھا کے کچھ ایسے کیسز بھی آئے تھے کے لوگ ویکسینیٹڈ تھے اور انہیں پھر بھی کورونا ہوا تھا۔"

According to participant 3, getting covid despite being vaccinated caused fear in people:

"لوگ تو ڈر گئے نا اس چیز سے کے ویکسین لگوانے کے بعد بھی کورونا ہو رہا ہے ویکسین لگواتے ساتھ بھی کچھ لوگ مرے ہیں تو اس چیز سے لوگ ڈرنا شروع ہو گئے تھے پھر۔"

Most participants were of the opinion that they did not found the vaccine to be effective. This was supported by the observation that people who got vaccinated were still getting Covid.

Participant 1 shared her observation:

"میں نے بہت سارے لوگوں کو ، جنہوں نے ویکسینیشن کروائی ہوئی تھی ، انکو میں نے زیادہ دیکھا ہے کے انکا پتا چلتا تھا کے انکو ہوا ہے کورونا اور بہت سخت ہوا ہے ، ابھی ٹھیک ہوئے ہیں کچھ دن بعد پھر ہوجاتا۔ میری نند ہیں میرے دیور ہیں سب کو اسی طرح ہو رہا ہے اوپر نیچے۔ میرے شوہر کو ہو رہا ہے اوپر نیچے ، میری بہن کو اتنی دفا ہوا ہے اور وو بھی یہ شکایت کرتے ہیں کے ہڈیاں ٹوٹ رہی ہیں، وہ بردشت سے باہر ہے۔ تو پھر ویکسین کا تو میرے خیال میں فائدہ نہیں ہے۔ ابھی تو مجھے 100% یقین ہے کے میں نے نہیں لگوائی۔"

Participant 2 shared that:

"کووڈ کیوں کے میرے گھر میں سب کو ہوا جنہوں نے ویکسین نہیں لگوائی انکو بھی ہوا جنہوں نے لگوائی انکو بھی ہوا۔ تو مجھے نہیں لگتا کہ یہ خالی ویکسین کے اوپر ڈیپنڈ کرتا ہے۔ مجھے نہیں پتا یہ کس چیز پر ڈیپنڈ کرتا ہے لیکن ویکسین پر صرف ڈیپنڈ نہیں کرتا۔"

Participant 4 added;

دیکھے فائدے مند تو نہیں ہے کیونکہ کووڈ ویکسین استعمال کرنے کے بعد بھی "لوگوں کو کووڈ ہوا ہے۔"

#### 4.1.2.2 Covid Vaccine Has Side Effect.

Almost all participants reported that they witnessed other people who were getting vaccinated experience multiple side effects.

Participant 1 shared how their sister experienced side effects from being vaccinated:

"میری ایک بہن نے لگوائی تو اسکو بہت زیادہ ایفیکٹ ہوا تھا۔ سمجھیں کے اس دن تو بالکل ہاتھوں میں آگئی تھی بڑی مشکل سے ہم نے اسے سنبھالا تھا۔"

They further added:

"جنہوں نے ویکسین لگوائی وہ یہ بھی کہتے ہیں ہماری ہڈیاں بالکل ٹوٹ رہی ہیں۔ عیسا لگتا ہے کے جیسے کوئی کچھ مار رہا ہو کوئی چیز اور کمزوری بھی آ جاتی ہے۔"

Participant 2 shared that one of the reasons for not getting vaccinated is because they heard about side effects of covid vaccine in menstruation. She said:

"سارے یہی کہہ رہے تھے کہ اس سے جن لوگوں کی پریگننسی تھی انکا میس کیرج ہو گیا تھا اور پیرویوٹس میں مسئلہ جیسے کہ درد وگیرہ زیادہ ہو رہا تھا کچھ اس طرح سے تو وہ تھا کے کچھ زیادہ ایشو نہ ہو جائے اس کیس میں۔ اور پہلے ہی نہیں ہوتے مس ہوتے ہیں سائیکل میرے، اوپر نیچے ہوتے رہتے ہیں، اریگیولر رہتے ہیں تو اس وجہ سے میں نے کہا کہ اور ورسٹ ناہو جائے۔"

They also mentioned:

"لوگوں کے تجربات سے بھی یہ سنا کے اس سے لگوانے کے بعد پیرویوٹس کا درد ہوتا ہے، اس سے پیرویوٹس اریگیولر ہو جاتے ہیں کے مجھے اس سے ورسٹ مجھے پہلے ہی PCOS بھی ہیں تو I wouldn't prefer ہوجائیں۔"

Participant 3 also added to this concern:

"ایک سٹڈی سامنے آئی کہ ویکسین سے مینوسٹرل سائیکل خراب ہو رہا ہے۔ تو یہ میں نے پڑھا تھا کہ کچھ لوگوں کامینو مانڈ تھا لیکن انکو بلیڈنگ دوبارا سے شروع ہوگئی۔ یہ میں نے خود پڑھا تھا۔ دوسرہ بلیڈنگ بڑھ جاتی ہے یہ بھی تھا۔"

Participant 4 said that:

"جن جن لوگوں نے ویکسین لگوائی ہے انکا تجربہ بھی بالکل اچھا نہیں رہا وہ دو تین دن بیمار رہے ہیں اس ویکسین کو لگوانے کے بعد۔ بیوی ڈوز تھی اور اس وجہ سے بھی میں ڈر گیا تھا کہ کیوں بخار ہو رہا ہے دو تین دن۔"

Participant 6 shared that:

میں نے دیکھا ہے کہ جنہوں نے لگوائی ہے اسکے کچھ دن بعد، 3 سے 4 دن بعد، وہ بیمار پڑھ گئے، انہیں بخار ٹیمپریچر وغیرہ ہوا۔ ہو سکتا ہے کی ڈوز "اتنی بیوی تھی پتا نہیں کیا اسکے پیچھے وجہ ہو سکتی ہے۔"

#### 4.1.2.3 Alternatives To Covid Vaccine

Most participants discussed use of alternative medications either by self or others for prevention of covid.

Participant 1 discussed popular use of antibiotics to protect from covid:

"ویسے بھی ہماری امیونٹی بڑھ گئی ویسے ہی دوا لے لے کے یہ جو ازومیکس ہے اسکا بہت استعمال ہوا ہے۔ جب سے کورونا شروع ہوا تو ازومیکس لوگوں نے بے حساب کھائی ہے ڈر کے مارے۔ بغیر وجہ کے۔ ڈاکٹر کے پاس جایا نہیں جاتا تھا کہ وہ کورونا پازیٹو کر کے انسولیشن میں بھیج دیں گے۔ تو لوگ گھر میں ہی کھاتے رہے ہیں ازومیکس لے لے کے۔ ہر گھر میں ہی ڈھیر لگا ہوتا تھا۔"

Participant 3 discussed role of immunity as a way of protection against covid:

"آپکی ایمیونٹی سٹرانگ ہے نا تو آپکو اتنی ویکسینیشن کی بھی ضرورت نہیں ہے۔ اگر آپ اپنی ڈائٹیٹ وغیرہ سہی رکھو اسکے علاوہ جو ہے وہی چیز ہے کہ جو جو آپکی ایمیونٹی کو سٹرانگ کرتی ہے۔ اب جیسے ایک بار یہ چیز ہوگئی تو میں نے اس سے رکور کر لیا تو اس سے مجھے یہ پتا چلا کہ بغیر ویکسین اگر آپکی ایمیونٹی سٹرانگ ہے تو آپ سروائیو کر سکتے ہو۔"

Participant 5 laid emphasis on usage and promotion of alternative practices for protection against covid 19:

"میرے نزدیک جو جڑی بوٹیوں وغیرہ جو ہوتی ہیں جو حربس ہوتی ہیں میں کہوں گا کہ عام طور پر میرے ذاتی تجربے میں سب سے بہتر رہے ہیں کووید کے لیے۔"

They further discussed importance of alternatives:

"ایک اس میں یہ چیز آ جاتی ہے کہ یہی اگر مکامی علوم کو ہم لوگوں نے شروع سے فروغ دیا ہوتا تو لوگوں کو علم ہوتا کہ اگر ہمیں ویکسین نہیں مل رہی تو اسکے متبادل موجود ہیں جو ہم استعمال کر سکتے ہیں لیکن وہ آگاہی نہیں تھی۔ و و علم نہیں تھا تو ان علوم سے لوگوں نے سبق حاصل نہیں کیا لوگ ویکسین کے طرف گئے۔"

Participant 6 shared how good health can help prevent Covid:

"میرا یہ ہے کہ ایکسرس سائیز وغیرہ کرتا ہوں کہ جسکا ایمیون سسٹم سٹرانگ ہوگا وہ اگر کوویڈ ہے بھی صحیح تو اس کے خلاف لڑ کر مطلب کورونا کا اٹیک بھی نہیں ہوگا۔ بیسیکلی میری روٹین ہے میں کرکٹ، فٹ بال وغیرہ یہ چیزیں جسکی وجہ سے ہمارا ایمیون سسٹم سٹرانگ ہوتا ہے ورزش ہوگی، مارننگ والک ہوگی اور اسکے علاوہ صحت مند کھانے ہوگئے، جوس ہوگیا، تو میں نہ زیادہ تر شروع سے لیکر ابھی تک یہی روٹین فولو کرتا ہوں۔ اسکے علاوہ کوویڈ کے دوران ثنا مکھی کا لوگوں نے استعمال کیا میرے خاندان میں بھی ایمیونٹی بڑھانے کے لیے۔"

#### **4.1.3 Theme Three: Reasons For People To Get Covid Vaccine According To**

##### **Unvaccinated Individuals**

Different reasons were brought up by unvaccinated participants for as to why vaccinated individuals chose to vaccinate. These were discussed under the subordinate themes; avoid government regulations for unvaccinated people, Other reasons for people getting vaccinated according to unvaccinated people.

##### **4.1.3.1 Avoid Government Regulations for Unvaccinated People.**

Regarding this participant 1 said:

"میرے تو جو زیادہ جاننے والے ہیں انہوں نے فورس ہو کر لگوائی۔ کسی کی جو بات تھی، کسی کی پڑھائی تھی۔ تو اب جیسے میرا کزن ڈاکٹر ہے تو ہسپتال میں ظاہری بات ہے نوکری کر رہا تھا تو اگر وہ نہ بھی چاہتا تو اسے لگوانی پڑھتی کیوں کہ سب سے پہلے ہی ڈاکٹروں کو لگانی گئی۔ تو کچھ مجبوری میں بھی ہوتا ہے۔"

They also elaborated that:

"ابھی بھی بہت سارے لوگوں نے مجبور ہو کر لگوائی ہے۔ مطلب یونیورسٹی کے سٹوڈنٹس ہیں تو ظاہری بات ہے انکا کیریئر تھا، اور ایسی طرح آفسز میں پرائیویٹ جو لوگ جابز کرتے ہیں انکی نوکری کا مسئلہ تھا، اور جنہوں نے ملک سے باہر سفر کرنا تھا حج وغیرہ کے لیے بھی تو وہ ظاہری بات ہے لوگوں نے مجبور ہو کر ویکسینیشن کروائی ہے۔ بہت کم لوگ ایسے ہیں جنہوں نے اس چیز کو ایکسیپٹ کیا اور خوش ہو کے اور آگے ہو کے فوراً فوراً لگوائی ہے اور سیٹسفائے ہوئے ہیں۔ ایسے لوگ بہت کم ہیں۔ زیادہ تر لوگ یہی کہتے ہیں کہ ہماری تو مجبوری تھی تو ہمیں تو لگوانی پڑھی۔"

Participant 4 mentioned:

"وہ بس اسی وجہ سے لگوا رہے ہیں کہ جی ہر جگہ فورس کیا گیا نا کہ رجسٹریشن کرانی ہے۔ آپ اپنا ویکسین سرٹیفیکیٹ دکھائیں کسی جگہ جانا ہے تو۔ آپکی سمز بند کر رہے ہیں ویکسین دکھائیں۔ مطلب ان وجہوں کو لے کر انہوں نے ویکسین لگوائی ہے نا کہ کورونا سے ڈر کر ویکسین لگوائی ہے انہوں نے۔"

Participant 6 shared that restrictions at his university compelled students to get vaccinated:

جب پہلی ویو تھی تب یونیورسٹی میں ہدایات میں یہ لکھا ہوتا تھا اگر آپ کو ویکسین لگائی گئی ہے تو ہم آپ کو اجازت دیں گے آنے کی ورنہ آپ کو نہیں آنے دیا جائے گا "تو اس وجہ سے کافی لوگوں نے لگوائی۔"

#### 4.1.3.2 Other Reasons For People Getting Vaccinated according to

##### Unvaccinated People.

Participant 5 attributed interest of people to get vaccinated for following reasons:

"ڈومینو ایفیکٹ آجاتا ہے کہ جب ایک بندہ کنونسنڈ ہو جاتا ہے کسی میسج سے تو اپنے ساتھ والوں کو بھی کنونسن کرتا ہے۔ کرتے کرتے جب یہ عوام میں پھیل جاتی ہے تو جو اوٹلائڈ ہوتے ہیں جو اس چیز پر یقین نہیں کرتے انکے اوپر سوشل پریشر بہت زیادہ ہوتا ہے۔"

Participant 6 shared that people got Covid vaccine due to fear of developing health issues or even dying:

"کچھ لوگ ہوتے ہیں وہ سیریس لے لیتے ہیں کے جیسے کچھ لوگوں نے بتایا کے اگر آپ یہ نہیں لگوں تو آپ کے گردے وغیرہ فیل ہو جائیں گے، آپ کی موت ہو جائے گی۔ آپ کے لیے موثر ہے تو آپ یہ لگوا لیں۔ میرے جو کلوز دوست ہیں جنہوں نے لگوائی ہے انکا یہ بیلیف تھا کہ اگر آپ نہیں لگوں گے تو آپکی موت ہو جائے گی۔"

#### **4.1.4 Theme Four: Pakistani Government Urging People for Covid Vaccine**

Most participants were of the opinion that the government did urge the population to get Covid vaccine. Their opinions regarding this theme have been discussed under the sub-ordinate themes; reasons for government pushing people to get Covid vaccine, authoritarian approach of Pakistani government towards vaccination of public.

##### **4.1.4.1 Reasons for Government Pushing People to Get Covid Vaccine.**

Most participants discussed role of foreign influence in government's efforts to vaccinate as much of the population as possible.

Participant 1 discussed that:

"و (حکومت) بھی انڈر پریشر ہو سکتے ہیں، یورپین ممالک جنکے انڈر پریشر ہو سکتے ہیں۔ دوسرا یہ بھی ہے نا کہ یہ بھی سننے میں آیا کہ ضروری نہیں ہے کہ جو بات ہو رہی ہے یہ 100% ٹھیک ہوگی لیکن یہ بھی سوشل میڈیا ہے ڈسکس کیا گیا ہے کے بارے میں ڈبلیو ایچ او جو فیورڈ دے رہا ہے ایسے ممالک کو جنکا لوگوں کو ڈر ہے کے ادھر زیادہ پھیل رہا ہے جو ویکسین بھی کر رہے ہیں تو انکو زیادہ فیور دے رہے ہیں۔ انکو ہیلپ اوٹ کر رہے ہیں تو اس وجہ سے بھی حکومت جو ہے وہ مطلب جو ہے وہ یہ کرتی ہیں کہ ٹھیک ہے کیسز ہیں تو اس طرح ہمارا بھی ہوا ہے لاک ڈاؤن تو ہم بھی اس کے لیے کچھ سٹرگل کر رہے ہیں۔ تو ڈبلیو ایچ او کا فیور لینے کے لیے بھی ہو سکتا ہے لیکن یہ ساری چیزیں سوشل میڈیا کے ہیں میری اپنی سوچ نہیں ہے۔"

Participant 2 discussed:

"اچھا میں وجہ تو مجھے ایسا ہی لگتا ہے کہ ظاہری بات ہے انہیں امداد چاہیے ہوتی ہے باہر سے۔ تو اس وجہ سے ویکسین لگواتے ہیں۔ کیونکہ میں اسکو ریشنلائز بھی ایسے ہی کروں گی کہ کیسز تب ہی ڈراپ ہونا شروع ہو جاتے ہیں جب امداد آجاتی ہے اور ملک کی حالت تھوری سٹیبلائیڈ ہو جاتی ہے اور

پھر کیس پھر ٹی وی کے اوپر سوشل میڈیا کے اوپر تب ہی یہ چیز زیادہ ہائپ ہونا شروع ہوتی ہے اور ایک نئی لہر آجاتی ہے کورونا کی جب ملک کے حالات بگڑ رہے ہوتے ہیں۔"

They also mentioned that government is trying to develop better image through such efforts:

"ظاہری بات ہے دنیا کے سامنے یہ تو نہیں دیکھانا کے بہت ہی ایک جاہل قسم " کی قوم ہے کیونکہ ایک کونوٹیشن اس کے ساتھ لگا جاتی ہے کہ اگر آپ ویکسین نہیں لگوا رہے تو وہی کے آپ بیک ورڈ مائینڈڈ ہو کے نہیں لگوانا چاہتے تو شاید اسوسیٹ نہیں کرنا چاہتے پاکستان کی سافٹ امیج دکھانا چاہتا ہے۔"

Participant 5 discussed how government is focusing on vaccination to maintain economy:

"بیسکلی اس میں پہلا تو پہلو یہ آتا ہے کہ دوبارہ کے یہ ایکونومی کو اپنا چلانا تھا جو مغرب میں بھی تھا اور یہاں پر بھی رہا ہے جو ہمارے بڑے بڑے سرمایہ کار بیٹھے تھے ، انڈرسٹریسٹ بیٹھے وہ معیشت کو چلانا رکھنا چاہتے تھے۔ اسکے لیے وہ نہیں چاہتے تھے کہ معیشت میں بڑی تباہی آئے تو انکا بھی ایک فیکٹر تھا۔ کیونکہ پاکستان میں خاص طور پر یہی لوگ حکومت میں بھی بیٹھے ہوتے ہیں، جو ہماری بڑی بڑی ملز بڑی بڑی انڈسٹریز ہیں وہ یہ جو پالیسی ڈیزائن کرتے ہیں اپنے پرافٹس کے لیے کرتے ہیں۔ تو حکومت کا میرے خیال میں اس وجہ سے بھی انفلوئنس تھا کہ

with saving the profits of the capitalists capitalists they also, I think at some level, genuinely tried to save lives in Pakistan."

Participant 6 agreed with the influence of foreign organizations as a factor in government urging for vaccination:

"کچھ نیوز میں جاننے والے ہیں اینکرز وغیرہ تو انہوں نے بتایا کہ سائید اسکے پیچھے ایک پالیسی ہے کہ پیچھے سے فنڈز ملیں گے۔ تو جتنا زیادہ آپ اسکو پھیلاؤ گے جتنا زیادہ لوگ لگوائیں گے اتنا زیادہ آپکو فنڈز ملیں گے۔"

#### 4.1.4.2 Authoritarian Approach of Pakistani Government Towards

##### Vaccination Of Public.



Another theme that was raised was the authoritarian approach of government in attempts of vaccinating the population. Most participants held the opinion that this approach was not appropriate.

Participant 1 said:

"اپنی مرزی ہونی چاہیے ہمیں پش نہیں کرنا چاہیے اور دوسری طرف یہ کہ ابھی بھی بہت سارے لوگوں نے مجبور ہو کر لگوائی ہیں ویکسین۔"

Participant 2 discussed that vaccination shouldn't be dealt with as a punishment:

"بیچ میں جو پابندیاں لگیں تھیں تو اگر دیکھا جائے تو امریکہ کے بھی حالات بہت خراب ہوئے تھے لیکن ابویسلی وہ فائینشلی سٹیبل ہیں لیکن انہوں نے پراپر طریقہ استعمال کیا تھا۔ انہوں نے انسینٹوز دیے تھے لیکن یہاں پہ صرف، کیا کہتے ہیں اسے، صرف پنیشنٹ کے طور پر ہی لگوائی جا رہی تھی۔ اس سے بہتر ہے آپ لوگوں کے اوپر اعتماد بلڈ کر دیں اور انکو ہی، مطلب سٹیک ہولڈرز ہیں نہ لوگ سارے، تو انکو سمجھادیں کہ کیا کرنا چاہیے کیوں لگوانی چاہیے پروپر انفورمیشن دیتے ہیں بجائے کنفیوزن کھڑی کرنے کے کہ یہ بھی آگئی ہے وہ بھی آگئی ہے۔۔۔۔۔ تو میں کہوں گی کہ یہ انسینٹوز جو تھے وہ دینے چاہیے تھے اور انسینٹوز نہیں دیے اور اس کی جگہ الٹا پابندیاں لگا کر اور سزا کے طور پر ویکسین لگوانا غلط ہے۔ اور ابویسلی ہر کسی کا اپنا فیصلہ ہوتا ہے، اپنی مرضی ہوتی ہے، اپنی ویلینگنس ہے۔ آپ کسی کو پنیشن کر کے دوا نہیں دے سکتے، کونسیٹ ہونا چاہیے۔"

Participant 4 stated:

"میں تو چاہ ہی نہیں رہا کہ وہ ایک چیز استعمال کریں جو ان پر فورس کیا جا رہا ہے۔ مطلب مجھے خود بھی تھا کی چیزیں بند کر دیں گے، میرے اوپر پابندیاں لگا دیں گے لیکن میں نے پھر بھی نہیں لگوائی۔ میں یونیورسٹی بھی جاتا رہا کسی نے نہیں پوچھا لگوائی ہے یہ نہیں لگوائی۔ ویسے بھی گورنمنٹ کی اتنی زیادہ سٹرکٹریس ہونا فعیر نہیں ہے۔ مطلب اگر کوئی ایک پراڈکٹ نہیں یوز کرنا چاہ رہا تو کیوں فورس کر رہے ہیں۔"

#### **4.1.5 Theme Five: Acceptance of Covid Vaccine in Unvaccinated Individual's Locality**

Participants were asked about their views and observations regarding acceptance of vaccine in the areas that they resided in. Some participants shared the opinions of their

neighbours while some also shared Covid vaccine acceptance and hesitancy in their native areas. Client gave mixed opinions regarding the matter, some discussed that it was accepted while some discussed that it was rejected in their locality.

Participant 2 shared observations from their workplace and university:

"ہاں رائے میں نے اساتذہ سے کام سپر ایک بار پوچھا تھا تو ان سب نے لگوائی ہوئی ہے لیکن انہوں نے ایس سچ کوئی اکسپریشن نہیں دیا تھا کہا بس ہانجی لگی ہوئی ہے بس ٹھیک ہے۔ اور یونیورسٹی میں بھی مینے ایسے دیکھا نہیں کہ کوئی اسکے خلاف ہے۔ سب نے لگوائی ہوئی تھی اپنی اپنی ڈوز۔"

Participant 3 shared the following observation:

"کافی بد تک ویکسین ایکسپٹنس ہے۔ میرے جیسے لوگ کم ہیں کے جو نہیں لگوا رہے۔ لیکن پھر میں بتاتی ہوں جو لوگ باتوں پہ جلدی یقین کر لیتے ہیں، جو افواہیں وغیرہ ہوتی ہیں تو ان میں آگاہی نہیں آتی۔ جیسے بہت سے لوگوں کو اس بات پر یقین ہے کے دو سال بعد مر جائینگے۔ تو لوگ مکس ملیں گے ہر جگہ پہ۔ لیکن پھر بھی وو کہیں آ کے نہ فیملی نے انکو بولا تو انہوں نے ویکسینیشن کروالی۔ زیادہ تر لوگ ویکسین کے حق میں ہیں۔"

Participant 4 shared the observation that vaccine acceptance varies with age groups:

"دیکھیں اگر میں اپنے فرینڈ سرکل کی بات کروں تو یہی کہا ہے کے کوویڈ ویکسین نہیں لگوانی چاہیے۔ وہی کے جو لگوا رہا ہے اسکی یہ تو کوئی مجبورے ہے کہ اس نے باہر جانا ہے یا اس نے کوئی گاڑی رجسٹر کرنی ہے۔ ہاں جو اولڈ لوگ ہیں 40 میں وہ جلدی اکیسیپٹ کر رہے ہیں اس چیز کو۔ ظاہر ہے بیمار ہوتے ہیں اور ان کی بیماری اس طرح جلدی ٹھیک نہیں ہوتی۔ ایک نوجوان بندہ ہے وہ دو تین دن بیماری کو برداشت بھی کر لیتا ہے اور پھر ٹھیک ہو جاتا ہے تو جو نوجوان بندے ہیں ان میں اکیسیپٹنس نہیں ہے۔ جو اولڈ ہیں 40، 50 میں وہ لوگ اکیسیپٹ کرتے ہیں اس چیز کو اور لگوا بھی رہے ہیں ویکسین۔"

Participant 5 shared that:

"میرے ایریا میں کوویڈ ویکسین کے بارے میں اٹیٹیوڈ زیادہ تر لوگوں کا پوسٹیو ہے۔ وکسین کے بارے میں نیگٹیو ایپینون کم ہیں۔"

Participant 6 shared that vaccine acceptance varies according to literacy level:

"جو تعلیم یافتہ لوگ ہیں وہاں پہ زیادہ لگوائی ہے ، جو ان پڑھ لوگ ہیں گاؤں کے لوگ ہیں ان میں سے 99% لوگوں نے نہیں لگوائی۔ جتنی زیادہ آپ کے پاس معلومات ہو گی اتنی زیادہ کوہ کعیر کریں کے اسکی۔"

#### 4.1.6 Theme Six: Experiences Being Covid Unvaccinated During Covid Pandemic

Participants discussed how being unvaccinated was associated with stigma. However most were of the opinion that with time people have become more accepting of unvaccinated individuals.

Participant 1 shared their experience as an unvaccinated individual during covid pandemic:

"میں کہوں گی کہ مینے نہیں لگوائی تو میں نے دیکھا ہے کہ اس سے سوشل ایکسیٹنس زیادہ ہوتی جنہوں نے ویکسین لگوائی ہوتی ہے۔ وقت کے ساتھ ویسے یہ چیز ختم ہو گئی ہے ایسی کوئی بات نہیں ہے کوئی فرق نہیں ہے لیکن شروع میں کافی زیادہ تھا۔ جنہوں نے ویکسین لگوائی تو ہانکے ساتھ ایسا تھا کہ ہاں یہ لوگ زیادہ صحیح ہیں ان سے ملنا چاہیے اور پھر شروع میں بھی آگیا تھا نہ کہ اگر اپنے ویکسین نہیں لگوائی تو یہ میرا رائٹ ہے کہ میں آپ سے کہہ دوں کہ آپ میرے سے دور بیٹھو۔ اور ٹویٹر پر اس طرح سے بہت چل رہا ہوتا تھا کہ اینٹی ویکسین موومنٹ یا پتہ نہیں جو ویکسین نہیں لگواتے انکے ساتھ یہ جاہلوں والا وہ ایسوسی ایٹ کر دیا تھا۔"

Participant 3 shared experiencing guilt in the beginning but overcoming it with time:

"ہاں اگر کوئی پوچھلے مجھ سے تو میں تو اسپیشل کعیر کرتی ہوں۔ میں اسپیشل گلٹ فیل کرتی ہوں کہ ہاں مینے ویکسینیشن نہیں کروائی لیکن میں سب کو بتانا ضروری نہیں سمجھتی کہ مجھے ویکسین لگی ہے یا نہیں لگی ہے۔ لیکن اب میں بتا بھی دیتی ہوں کہ ویکسینیشن نہیں ہوئی ہوئی۔ اب تو آہستہ آہستہ کامن ہو رہی ہے میرے لیے یہ چیز کے شروع میں یار اسنے ویکسینیشن نہیں کروائی، کیا یہ بندی ہے؟ کیا سوچیں لیکر بیٹھی ہوئی ہے؟ تھوڑا سا وہ ہو رہا تھا لیکن اب مینے کہہ ہے کہ نہیں لگوائی تو نہیں لگوائی۔"

Participant 5 shared how they struggled with stigma as someone who believe in using local traditions for prevention of covid instead of covid vaccine:

"میں کہوں گا کہ کیونکہ جو یونیورسٹی میں بھی میں عام طور پر اس کے بارے میں نہیں بولتا، میرے دوستوں کو پتہ ہے۔ کیونکہ زرامیں سمجھ سکتا ہوں کہ ڈر

ہے لوگوں میں کیونکہ وہ بیلویو کرتے ہیں کہ ویکسین کے علاوہ باقی علوم کام نہیں کرتے تو ان کے لیے بے شک آپ کوئی بھی میٹر فولو نہیں کر رہے یا آپ کوئی لوکل ٹراڈیشن فولو کر رہے ہیں تو ان کے لیے سیم بات ہے۔ ان کے نزدیک بس صرف اتنا ہے کہ آپ کوئی پریونٹیو میٹرڈ نہیں لے رہے۔ تو ایک سٹیگما ہے ایک لیول پر جو مجھے بھی محسوس ہوا۔ اور میرے دوستوں سے اس بات پر میرے کافی بحث ہوئی ہے اور وہ اب بھی مجھے پسند نہیں کرتے ہیں لیکن انہوں نے اکسیپٹ کر لیا ہے کہ مجھے کوویڈ نہیں ہوا میری فیملی کو نہیں ہوا ہے تو

"-overtime they got used to it

They further discussed that:

"میرے قریبی دوستوں کو میں نے بتا دیا کیونکہ میری نزدیک ایک اخلاقی ذمہ داری تھی کہ اگر وہ لوگ میرے ساتھ اٹھ بیٹھ رہے ہیں تو انہیں پتا ہونا چاہیے کہ اگر کسی کو مسئلہ ہوتا ہے اس چیز سے

they don't want to sit with an unvaccinated person so that's a decision that they should know the information

کہ میرے اوپر یہ ایک اخلاقی ذمہ داری ہے کہ میں انکو مکمل معلومات فراہم کروں حالانکہ مجھے اس سے خود نقصان ہو رہا ہے۔"

Participant 6 shared that multiple restrictions caused him to make a fake certificate. Three more participants shared their experiences with dodging the vaccination certificate system but refused to speak directly about it. Participant 6 shared that:

"ابھی تک یہ سین ہے کہ جیسی حکومت کے طرف سے پابندیاں تھیں کہ آپ سفر نہیں کر سکتے، مال میں داخل نہیں ہو سکتے، مطلب پابندی لگائی ہوئی تھی تو اس میں یہ سین بنا ہوا تھا کہ میں نے اپنی تو ابھی تک ویکسینیشن کروائی نہیں ہے تو جو بھی معلومات ہے وہ میں نے درج کردی اور کارڈ وغیرہ میرا بنا ہوا ہے ویکسین کا تو میں آسانی سے چیکنگ ہوتی تھی مالز، ہسپتال، یونیورسٹیوں وغیرہ میں تو میں آرام سے چیک کرا دیتا تھا۔"

#### 4.1.7 Theme Seven: Skepticism and Confusion Regarding Covid Vaccine

Participants raised many questions expressing skepticism regarding various aspects of the covid vaccine. One emergent theme was the lack of proper experimentation of vaccine.

Participant 1 opined:

"ابھی کیونکہ اس چیز کو ایکسپیرینس سے نہیں لایا گیا جب بھی کوئی ویکسین آتی ہے اسکو ایکسپیریمینٹس کر کے پھر لایا جاتا ہے تو اسکا مطلب ہمارے پاس ابھی تک اتنا ٹائم نہیں ہے کہ اس پر ایکسپیریمینٹ کیا جائے۔ ہمیں یہ ریسک لینا ہوگا۔"

Participant 2 also shared their concern regarding this:

"تو یہاں تو کورونا ابھی آئے ہوئے دس سال بھی نہیں ہوئے ہیں تو اس سے پہلے مہینوں میں ہفتوں میں اسکی ویکسین بن کے آگئی۔ یہ پتہ نہیں کیا ریسرچ ہوئی تھی کیا نہیں تو اسکی ویلیڈٹی ریلٹیویٹی کے اوپر سوال آتا ہے۔ کیا یہ دوا ہمارے اوپر ایکسپیریمینٹ کر رہے ہیں اور ہمارے اوپر یہ عثرات دیکھیں گے۔"

Another skepticism was related to sudden emergence of multiple kinds of vaccine.

Participant 1 said:

"ویکسین کا یہ تھا کہ دو نمبر قسم کی آنا شروع ہوگئی کہ یہ تھوڑی کم پاور والی ہے تو یہ زیادہ پاور والی ہے مطلب ویکسینیشن کا کتنا ہونا چاہیے۔ مطلب ڈوز کا تو کوئی نہیں ہے کہ یہ ایک سینگل ڈوز ہے یہ بے بوسٹر کی ڈوز ہے اور یہ آپکو دو دفا لگوانی ہے وہ ایک الگ چیز ہے لیکن یہ بھی تھا کہ ایک کاکم ایفیکٹ ہے اور ایک کا زیادہ ہے۔ تو یہ بھی چیز نہیں ہونی چاہیے۔ ویکسینیشن ایک ہو سب کے لیے اور واضح ہو کہ یہ ٹھیک ہے کہ نہیں۔"

Participant 3 talked about this as well:

"آب دیکھیں پہلے تو ویکسینیشن بن بھی نہیں رہی تھی اتنا زیادہ کچھ کرنے کے بعد پھر اچانک سے پوری دنیا میں ایک چیز پھیل جاتی ہے۔ فلاں ملک بھی ویکسینیشن بنا رہا ہے اور فلاں ملک بھی بنا رہا ہے اور پھر وہ فرق بھی آ گیا جو رشیا کی تھی، اسکے علاوہ چائینا والی۔"

Participant 4 shared that this skepticism also influenced their decision to not get vaccinated:

"پہلی چیز تو یہی ہے کہ مطلب یہ ویکسین ایک تو بن گئی ہے کسی پر ٹیسٹ نہیں کی گئی تو یہ تو پہلے ہی بندہ اتناسپیشیس ہو جاتا ہے کہ ایک نئی چیز ہے بندہ لگاوائے پتا نہیں کیا ہوگا۔ اور دوسرہ پھر ویکسین اب پتہ نہیں کس کس طرح کی ہوگی کیا پروڈکٹس استعمال کیے ہوں گے اس میں تو میں نے تو اس لیے بھی لگاوائی ویکسین۔"

#### **4.1.8 Theme Eight: Role Of Covid Vaccine In Ending Corona Virus Pandemic**

Participants had varying opinions regarding role of covid vaccine in ending the pandemic. Most held the view that covid pandemic will take its time and end on its own.

Participant 1 expressed unsurity regarding role of covid vaccine in ending pandemic:

"نہیں میرا نہیں خیال کے یہ ختم کر رہی ہے۔ اسکو ٹائم لگے گا اس چیز کو مطلب ختم کرنے میں کے یہ واقعی ایفیکٹو ہے کے نہیں ہے۔ اب اتنے مختصر ٹائم میں بندہ نہیں کہہ سکتا کہ یہ ہمیں کووڈ سے بچا رکھ سکتی ہے یہ نہیں۔"

Participant 3 was of the opinion that:

"افادیت تو مجھے لگتا ہے ساتھ ساتھ چلتی ہے لیکن ایک چیز یہ ہے کہ جب ایک چیز پیک پر جاتی ہے تو اسکا ذوال خود بخود آتا ہے۔ مجھے لگتا ہے کہ یہ خود ہی ختم ہو جائے گا۔ مجھے نہیں معلوم مگر مجھے ایسا لگتا ہے۔"

Participant 5 discussed importance of covid vaccine in developing heard immunity:

"میرے خیال میں وو جو کانسیپٹ ہے کے، اسے کیا کہتے ہیں؟ ہرڈ پروٹیکشن؟ ہرڈ ایمونیٹی۔ میرے خیال میں یہ ایفیکٹو ہے کیونکہ وہ جب وباء کوئی بھی پھیلتی ہے۔ اس میں ڈومینو ایفیکٹ بہت زیادہ آتا ہے کے ایک کمپاؤنڈ ایفیکٹ ہو جاتا ہے کے اتنے زیادہ لوگوں کو ہو رہا ہے اتنی تیزی سے وہ پھیل رہا ہے۔ تو اگر آپ میجوریٹی لوگوں کو، 70 سے 80 فیصد آبادی کو امیون کروا دیتے ہیں، بیشک ویکسین کے ذریعے کریں بیشک کسی اور ٹراڈیشن کے ذریعے کریں، لیکن اگر آپ ایمیون کروا دیتے ہیں آبادی کو تو میرے خیال میں یہ بہت ایفیکٹو ہوگا وائرس کو کنٹرول کرنے میں۔"

## **CHAPTER 5**

### **DISCUSSION**

The current study explored the concept of vaccine hesitancy in individuals who refused to get covid vaccine administered during the on-going Covid pandemic. Individuals who actively and voluntarily choose to remain Covid unvaccinated during the Covid pandemic were approached for this study. The reason for staying unvaccinated during a pandemic caused by life threatening virus was the main point of interest in this exploratory study. Beliefs regarding the covid vaccine, beliefs regarding effectiveness of vaccine in preventing covid, opinions on covid vaccination campaigns, reservations regarding covid vaccine, reasons of vaccine acceptance and vaccine hesitancy among public in general and the participant specifically and experiences of participants being unvaccinated during covid pandemic were some of the topics explored in this study. Themes that were commonly shared by most participants will be discussed in the light of current literature review in this section.

#### **5.1 Theme One: Opinions of Covid unvaccinated people about Covid Vaccine**

Participants discussed varying viewpoints regarding the Covid vaccine. One common opinion shared by most participants was that Covid vaccine was unnecessary for

preventing Corona virus. Participants shared stories of their family members and friends, discussing how despite getting covid vaccine they were still getting covid virus. Though not described directly by any of the participants, this discourse exhibited an underlying faulty belief held by most participants that covid vaccine could completely prevent oneself from getting Covid. This belief may be existing due to an overly positive promotion of covid vaccine, as discussed by participant 3, who opined that they felt like the public was only being communicated pros of getting vaccinated but were misinformed about the cons and side effects. A quick search on the internet will confirm that but there are online blogs and articles dedicated to addressing side effects as well as misinformation and myths. *Centers for Disease Control and Prevention* have addressed the existence of covid infection in vaccinated population naming the phenomena 'breakthrough cases'. They explain that breakthrough cases can occur but the severity of infection is low and does not lead to hospitalization or death (CDC.gov, 2021).

Contrasting to this were the participants' own experiences with covid virus. Three participants had gotten covid virus and shared how despite being unvaccinated, they did not experience severe symptoms equating the whole experience to a regular flu. Various factors have been theorized to contribute to this phenomenon. Andreacos et. al. (2021) in their study hypothesized that genetics may play a role in making some individuals resistant to Covid virus. In another study by Kundu et. al (2022) revealed that people with high level of T cells were more immune to getting Covid virus despite being close to Covid infected people.

However, researches also suggest that remaining unvaccinated may increase chances of reinfection despite gaining immunity from being infected by Covid virus. In a study



conducted by Cavanaugh et. al. (2021) it was revealed that unvaccinated individuals infected with Corona virus are twice as likely to be infected again compared to people who got vaccinated.

Opinions that participants shared regarding Covid vaccine also involved discussions on conspiracy theories regarding Covid vaccine.

A common conspiracy theory that became popular in Muslim countries including Pakistan was that covid vaccine was developed to reduce the Muslim population and the agenda was being run either by Western nations or Israel. This theory has existed for decades especially in the regions of Pakistan with extremist populations. In an article by *Medical News Today*, it was reported that vaccine skepticism has its roots in actual incidents such as a fake vaccine campaign conducted by CIA in 2011 to collect DNA samples from a compound in Abbottabad. After the incident came to public light, Taliban used it to spread anti-vaccine messages and conspiracy theories one of which was that westerns wanted to reduce the Muslim population (Uildriks, 2021). Another conspiracy theory that gained traction was that covid vaccine was being used to insert microchips. The theory originated after Bill Gates, founder of Microsoft, gave his opinions on how vaccination status can be detected in the future using chip implants (Sriskandarajah, 2021).

Despite mentioning these conspiracy theories in the interviews, many participants discussed that they did not actually believe in these theories but found them to be discussed often by their families and friends, or they came across them on social media. One participant shared how on Facebook they would find people both supporting and rejecting such theories.

## **5.2 Theme Two: Reasons for Not Getting Vaccinated Against Covid**

One of the most important topic of discussion in the current study was reasons for unvaccinated individuals to remain unvaccinated. Many participants attributed this decision to lack of trust in effectiveness of Covid vaccine against Covid. Participants shared that due to lack of surity and confirmation about vaccine's effectiveness by authority, they lost confidence in effectivity of the vaccine.

This uncertainty is due to the fact that Covid vaccine was developed only one years ago in August, 2021 (Food and Drug Administration, 2021). By virtue of being a new product it's effectivity is bound to be questioned. In a survey conducted by Gallup (2020) on vaccine hesitancy, 7% Americans gave the reason for being unvaccinated that they were waiting to see if vaccine would be effective. However, more and more researches indicate that Covid vaccine is successful in preventing serious infections and death. According to a study conducted by Christie (2021) on delta variant, Covid vaccine was 90% effective in preventing Covid.

Another reason participants shared for not getting vaccinated was the side effects they saw vaccinated people experienced. These side effects ranged from temperature to issues with menstrual cycle. Side effects can occur after Covid vaccination. According to a study on Covid vaccine side effects in Pakistani population, these included flu like symptoms, fever, headache, gastric problems and swelling at the site of injection (Abbas et. al, 2021). Some side effects may be adverse including thrombosis with thrombocytopenia syndrome, anaphylaxis among others. However these are extremely rare according to Centers for Disease Control and Prevention (2022).

Some participants shared that they did not feel the need to take Covid vaccine as they can use alternatives. One of the most popular alternative remedies in Pakistan was use of

the herbal treatment Sana Makki (Kumar, 2020). Other alternatives reported by participants included using antibiotics, using homeopathic medicines, eating healthy and boosting immunity. According to Paudyal et. al. (2022) the demand for alternative medicines and treatments has become popular due to lack of pharmacological treatment options for Covid infections.

### **5.3 Theme Three: Reasons for People to Get Covid Vaccine According to Unvaccinated Individuals**

In order to gain participants' insight regarding the opposite side of the debate, they were asked to discuss reasons that have convinced some people to get Covid vaccine. These reasons included fear of catching Covid virus, fear of dying, peer pressure and government imposed restrictions. In a cross-sectional study conducted by Ahmed et. al. (2021), fear of getting Covid infection was listed as one of the leading factors that contributed to eliminate resistance towards vaccine. In a study conducted by Rogers et. al. (2021), peer values were found to correlate with vaccine acceptance and hesitancy. In a global study on effect of introducing vaccine certificates and vaccine uptake, Mills and Ruttenauer (2022) found that vaccine uptake increased.

### **5.4 Theme Four: Pakistani Government Urging People for Covid Vaccine**

Since Pakistani government has pursued the goal of vaccinating as much of the population as possible, it was important to take opinion of individuals who chose to remain unvaccinated and may be influenced by this goal. Most participants discussed how the government was either pressured by foreign forces to vaccinate the Pakistani population or wanting to receive aid.

Even though there is truth to the latter belief as according to USAID's website, their donations to promote Pakistan's vaccination effort reach 32 million (USAID, 2021). However, the website also states specific goals on which the amount will be spent including buying ventilators, promoting education during lockdown, lending loans to small businesses etc. (USAID, 2022). This dismissed the myth that selfish interest of government is involved in their efforts to vaccinate the country.

Other reasons shared by participants included improving image of country. According to a paper by Lee (2021), vaccine has been used by China for diplomatic ties with other countries and building a better image.

Participants also discussed the forceful approach of government towards vaccination and how they felt their right to make a decision for themselves was violated especially since their basic necessities and facilities were effected (Shah & Gillani, 2021).

### **5.5 Theme Five: Acceptance of Covid Vaccine In unvaccinated Individual's Locality**

Participants share varying opinions regarding vaccine acceptance in their locality ranging from 'complete lack of acceptance' to 'majority accepting the vaccine'. During the conversation on this theme, an interesting correlation was drawn between vaccine hesitancy, rural and urban region and literacy rate. Regarding this participant 5 mentioned that:

"میں چنیوٹ سے بیلونگ کرتا ہوں تو وہاں شہر کے زیادہ بہتر حالات ہیں وہاں ہائیر ایجوکیشن بھی زیادہ ہے۔ چنیوٹ سے باہر گاؤں والا علاقہ ہے ادھر ایجوکیشن کم ہوتی ہے۔ تو جن لوگوں کو ہم کم پڑھا لکھا کہہ سکتے ہیں ان میں ویکسین سکیپ ٹسسم زیادہ ہوتا ہے۔"

Participant 6 shared that:

"بکسیکلی میں بیلونگ کرتا ہوں جنوبی پنجاب سائیڈ سے، تو وہاں بے موستلی ایلٹریٹ لوگ زیادہ ہیں۔ دیہات وغیرہ میں یہ چیزوں پر وہاں لوگ ذیرو پرسنت بھی یقین نہیں کرتے۔"

This statement coincides with findings in a study conducted by Alcendor (2021) on vaccine hesitancy in state of Tennessee, vaccine hesitancy rate was found to be higher in rural communities with factors such as lack of health literacy and misinformation being one of the reasons. In a report published by University of Colorado on vaccine hesitancy in rural areas of America (Murphy & Hughes, 2022), 64% of the urban population was determined to be vaccinated while 50% of rural population was vaccinated by March, 2022.

### **5.6 Theme Six: Experiences Being Covid Unvaccinated During Covid Pandemic**

Many unvaccinated individuals who were approached for interview refused to give interviews due to stigma surrounding the decision to remain unvaccinated. Individuals who were willing to give interviews also shared experiencing a sense of guilt or humiliation over remaining unvaccinated and this has been discussed in the super-ordinate theme that was extracted from data titled 'experiences being unvaccinated during covid pandemic'.

Participants mentioned that they experienced guilt themselves or were demeaned by their peers for choosing to stay unvaccinated. Participant 1 shared that they experienced that being vaccinated increased social acceptance and those who were unvaccinated were treated as someone who others had to stay away from and that they were thought to be illiterate. Participant 5 shared that they got into arguments with their friends because of their decision to remain unvaccinated and also felt ethically obliged to inform peers about them being unvaccinated.

Unvaccinated individuals have faced discrimination either by their friends or at workplace. In a survey conducted of 900 American employees by MyPerfectResume (Paczka, 2022), 44% unvaccinated employees reported that they were subjected to discrimination because of refusing to vaccinate. Some organizations such as U.S. Equal Employment Opportunity Commission provides protection to unvaccinated employees in case they chose to remain unvaccinated due to health reasons, personal beliefs, religious reasons etc. (EEOC.gov, n.d.).

No such policies have been established by the Pakistani government. This concern was also raised by the participants of this study. It was discussed that instead of providing with alternative solutions, the government took an authoritarian stance and subjected unvaccinated individuals to restrictions. This experience of participants has been discussed in results under the theme ‘authoritarian approach of government towards vaccination of public’. Participant 2 discussed that they felt like they were being punished for being unvaccinated. They also mentioned that Pakistani government should learn from countries like America where people were provided incentives for getting vaccinated.

### **5.7 Theme Seven: Skepticism And Confusion Regarding Covid Vaccine**

Participants discussed that they had many questions and confusions regarding the vaccine. They attributed this confusion to the short time span in which vaccine was developed, continuously changing information regarding dosages, lack of information about composition of vaccine among other concerns. In a paper on covid vaccine skepticism by Boyd (2021), it is discussed that people have been subjected to confusion and incisiveness due to continuous advancements and changing policies. This has caused

people to view the scientific process of vaccine development as faulty and prone to errors rather than as something that is progressing.

Participants in this study have been of the opinion that if confusion arises, government should make efforts to properly educate the people about different steps in which vaccine is being made and distributed in order to gain public's trust.

### **5.8 Theme Eight: Role Of Covid Vaccine In Ending Corona Virus Pandemic**

This theme produced mixed responses from the participants but most participants were not certain attributing it to how both the Covid pandemic and the Covid vaccination are both recent events. However, studies are being done on the effect of Covid vaccine in ultimately ending Covid.

Whether the Covid pandemic will end depends on multiple factors ranging from country policies on managing Covid to development in Covid vaccines. Mukaigawara et. al. (2022) discussed in his paper three ways in which pandemic can end which includes locally producing vaccines, a good public health plan and protecting population that is most susceptible to get infected.

### **5.9 Limitations and Recommendations**

- Sample size could be increased to increase generalizability.
- More areas could be accessed for data to avail richer information regarding people's experiences with vaccine hesitancy.
- More demographic groups could be included such as people from different classes, older and younger age groups and different religions.
- Other data collection methods could be used such as Focus group discussions.

### **5.10 Implications**

- The study provides an insight in to issues related to vaccine acceptance. By bringing these issues in to limelight through such researches, they can be addressed through various measures in order to increase vaccine acceptance and reduce vaccine hesitancy.
- By gaining a deep insight in to the issues related to vaccine acceptance, more specialized steps can be taken to counter the barriers. For example many participants mentioned receiving information related to conspiracy theories from the internet. By tackling such misinformation many people can be prevented from accessing and being influenced by such hoaxes.
- Studies such as this one can help refine policies and campaigns that promote vaccine acceptance. By viewing the issue from the perspective of those experiencing barriers, whether external or internal, we can shape the policies and campaigns that specifically target such barriers.
- By studying vaccine hesitant attitude and beliefs from this pandemic, we can prepare ourselves for barriers that we might experience in future pandemics related to vaccine acceptance. This way by developing measures based on previous studies and experiences, we can better shape our policies and campaign efforts to tackle vaccine hesitancy.

### **5.11 Conclusion**

The present study was conducted with the goal of gaining better understanding of reasons for vaccine hesitancy from the perspective of individuals who chose to remain covid unvaccinated despite its availability and it being promoted as a lifesaving drug



during the covid pandemic. Exploratory study was conducted by taking detailed interviews from participants who were currently holding vaccine hesitant beliefs. The interview content was analyzed using interpretative phenomenological approach which involved extracting emergent themes and super-ordinate themes from the data.

Participants discussed how they did not trust covid vaccine to prevent from covid virus as they had observed their own family members who have been vaccinated, get covid infections. Lack of acceptance of covid vaccine and its significance was also based on the skepticism surrounding the short time period in which it was developed, the constant changes in dosage, lack of knowledge provided regarding content of covid vaccine etc. This skepticism went beyond genuine concern in some cases participants discussed conspiracy theories as one of the reasons for not being vaccinated. Participants also shared their experiences with restrictions from government and how they felt guilt or got in to arguments with their peers over their vaccination status.

Most studies conducted previously on covid vaccine hesitancy would only extract reasons for the hesitancy but how and why they occurred was rarely addressed. With this research paper, it is hoped that we can gain better insight in to the reasons for vaccine hesitancy among Pakistani population. Developing the understanding based on views and opinions shared by the effected can help positively impact policy making and campaigns dedicated to vaccine acceptance.

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## ANNEXURES

### پوسٹ گریجویٹ تھیسس کنسنٹ فارم

اس تحقیق کا مقصد تفصیل میں دریافت کرنا ہے 'غیر ویکسین شدہ لوگوں میں کوویڈ ویکسین نہ لگوانے کا عمل'۔ آپ کی شناخت ظاہر نہیں کی جائے گی اور آپ کی رائے اور ڈیٹا کا حوالہ لیبل کے تحت تھیسس میں دیا جائے گا۔ اس تحقیق میں آپ کی شرکت قابل قدر ہے اور آپ کی رائے بڑی حد تک مفید ثابت ہوگی جذباتی اظہار کے متعلق ادب میں، ایک ایسا موضوع جو بہت کم والد کے حوالے میں زیر بحث ہے۔

مندرجہ ذیل رضامندی کا فارم ہے جو اس تھیسس میں بطور شریک آپ کے اخلاقی حقوق کو یقینی بناتا ہے۔ براہ کرم تمام اشیاء کو احتیاط سے پڑھیں اور پھر خانوں کو چیک کریں۔ اگر آپ کے سوالات ہیں تو محقق سے پوچھیے۔

	میں تصدیق کرتا ہوں کہ تحقیق کے مقاصد مجھ پر واضح کر دیئے گئے ہیں
	میں تصدیق کرتا ہوں کہ مجھے تحقیق کے بارے میں استفسار کرنے کا موقع فراہم کیا گیا ہے اور میرے سوالات کا مناسب جواب دیا گیا ہے۔
	میں سمجھتا ہوں کہ میری شرکت رضاکارانہ ہے اور مجھے حق ہے کہ کسی بھی وقت بغیر کسی وجہ کے تحقیق سے دستبردار ہوں۔

	میں اپنے انٹرویو سے آڈیو ریکارڈ ہونے پر راضی ہوں۔
	میں اتفاق کرتا ہوں کہ، بغیر میری شناخت کو بے نقاب کیے، میرے انٹرویو کے کچھ حصوں کا حوالہ تحقیق میں دیا جائے گا۔
	میں اس تحقیق میں حصہ لینے پر راضی ہوں۔

تاریخ	شریک کے دستخط
تاریخ	محقق کے دستخط

### ڈیموگرافک شیٹ

عمر	
صنف	
تعلیم	
پیشہ	
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کوئی میڈیکل ایشو	
نسب/ نسل	
مذہب	

### انٹرویو گائیڈ

- 1- کوویڈ -19 ویکسین کے حوالے سے آپ کی کیا رائے ہے؟
- 2- آپ نے کوویڈ -19 ویکسین نہ لگوانے کا انتخاب کیوں کیا؟ اس کی کیا وجوہ تھی؟
- 3- آپ کے خیال میں لوگ کوویڈ -19 ویکسین کیوں لگوا رہے ہیں؟
- 4- آپ کے خیال میں حکومت کوویڈ -19 ویکسین کے لیے کیوں تاکید کر رہی ہے؟
- 5- کوویڈ -19 ویکسین کی افادیت اور تاثیر کے متعلق آپ کی کیا رائے ہے؟
- 6- آپ کے مطابق آپ کے علاقے میں کوویڈ -19 ویکسین کتنی قابل قبول ہے؟
- 7- کرونا وبائی مرض کے دوران ایک غیر ویکسین شدہ فرد کی حیثیت سے آپ کا کیا تجربہ رہا؟
- 8- کوویڈ -19 ویکسین سے متعلق آپ کے ذہن میں کیا سوالات اٹھتے ہیں؟

9- آپ کی رائے کے مطابق آبادی کی کوویڈ - 19 ویکسین کا کرونا وبائی مرض سے نمٹنے میں کتنا اہم کردار ہے؟



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