

## Exploring COVID-19 Vaccine Hesitancy Among Heads of the Household in Dir Lower, Pakistan

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### Abstract

Since the beginning of the Covid-19 pandemic, efforts have been underway for the prevention of this disease. The vaccine is one of the ways to protect people from this pandemic but vaccine hesitancy among people is creating hurdles in attaining herd immunity against Covid-19. Vaccine hesitancy varies by socio-cultural and demographic factors among countries. Thus, the decision of the head of the household may have a significant role in successful immunization against this disease. Thus, the purpose of this study is to explore factors described by the head of the household associated with vaccine hesitancy in Dir Lower, Pakistan. A qualitative methodology is used, such as interviewing the male head of the household through a purposive sampling technique. Overall, 17 persons were interviewed. In-person interviews were conducted with each participant. Collected qualitative interviews were analyzed thematically. Results indicate two main factors: Mistrust of state and global COVID-19 preventive measures with the perception of mass killing and denial of COVID-19 as a pandemic by providing the alternative perspective that it is a normal flu, not a fatal disease and the belief of a fixed time of death comes to one.

**Keywords:** Socio-Cultural Factors Covid-19 pandemic, disease, Qualitative, vaccine.

## Introduction

Refusing vaccines is one of the significant health threats in this era (World Health Organization, 2019). In the same way, Covid-19 vaccine hesitancy and refusal is big health jeopardy. In addition to that developing countries with diverse socio-cultural contexts make this behavior more complex and permanent. In comparison to developed countries where vaccine refusal is slightest and temporary (Chevallier et al., 2021). Historically Pakistan has not succeeded in the implementation of mass vaccination (Jamal et al., 2020) and confusion and a high number of refusal reported in vaccination programs for fatal diseases. Likewise, there is uncertainty in the use of the Covid-19 vaccine among the local masses which may cause low vaccination (Y. H. Khan et al., 2020; Malik et al., 2021)

There are wide differences in the perception of local people in Pakistan about Covid-19 as a disease. Studies report that people perception of Covid-19 is highly affected by their age, gender, education, and profession. Whereas only a highly educated and female population were founded to be the most knowledgeable about the covid-19 (Ladiwala et al., 2021), but majority exaggerate the situation and consider Covid-19 the most deadly virus (Mubeen et al., 2020). A very dim picture of the actual situation has been explored because the underprivileged rural masses have the very least opportunity to participate in studies dependent on modern online technologies for data collection. Similarly, the well-educated and front line professionals were found ill-prepared for facing the pandemic (S. Khan et al., 2020). This shows widespread lack of awareness about the Covid-19 pandemic (Hayat et al., 2020). The majority of these unaware masses are prone to miss information. This lack of awareness is broadened when mixed with conspiracy theories. People feel hesitant to test for the virus and to be vaccinated (Gillani, 2020; Zehmisch, 2020). As in the early cases of polio vaccination, Pakistan becomes a victim of a conspiracy narrative. Hindering states ability to deal with the Covid-19 epidemic effectively (Y. H. Khan et al., 2020).

Vaccine acceptance is dynamic within different regions. The majority of studies report a high number of refusal (Yigit et al., 2021) and an acceptance rate of below 60% which is a risk for the prevention of this Covid-19 pandemic (Sallam, 2021). The major reason for refusal was founded safety and effectiveness of the vaccine (Callaghan et al., 2021). Though, a research study found in France that Covid-19 vaccine acceptance widely dependent on the nature and strategy of vaccination (Schwarzinger et al., 2021), vaccine hesitancy is only high for some ethnic minorities.

The main cause of their vaccine intake includes lack of trust and long term side effects on health (Razai et al., 2021; Troiano & Nardi, 2021) in addition, some studies reported that respondents believe that precautionary measures are enough for Covid-19 Prevention (Wang et al., 2021). Similarly false beliefs, lack of awareness and mistrust of health care measures negatively affecting vaccination campaigns (Lorenz & Khalid, 2012).

The most generalizing reason for vaccine hesitancy was uncovered by early researchers but vaccine hesitancy is different by socio-demography of different regions in China where rural regions show higher vaccine hesitancy (Wagner et al., 2021). The majority of preliminary studies are survey or secondary data-based. Thus, it lacks an exploration of the causes behind people's hesitancy to Covid-19 vaccination. Likewise, there is a significant impact of parental vaccine hesitancy on families immunization for infectious diseases (Khattak et al., 2021). Thus, this study set to answer the question: What causes COVID-19 vaccine hesitancy among the heads of households in Dir lower, Pakistan? Therefore, this comprehensive study will help all stakeholders to base on their vaccination strategies.

## Materials and methods

To explore the answer to the question: what causes COVID-19 vaccine hesitancy among the head of the households in Dir Lower, Pakistan? Therefore qualitative methodology was used. Researchers agree that qualitative methodology is useful when the research problem is about knowing the experiences and perspectives from the standpoint of the participant. When their population is unidentified (Creswell, 2014; Hammarberg et al., 2016). Thus, the universe of the study was district Dir lower in Khyber Pakhtunkhwa province of Pakistan, by including the head of the household as the study population.

Since COVID-19 vaccine hesitancy factors are not yet studied in great depth in this universe. Therefore, this study uses the purposive sampling technique. This technique is useful in medical research when a homogenous and criteria-based sampling is required (Kitto et al., 2008). Therefore, the researcher included a participant who was head of the household and refused to get vaccinated. In-depth interviews were conducted with 17 male respondents only. The culture of the universe is a patriarchal system (Tainter & Macgregor, 2011), so all the heads of households

are male. Saturation is considered a reliable factor for sample size determination (Bowen, 2008; Francis et al., 2010; Mason, 2010). This sample size was thought to be enough because at this point the researcher noted enough saturation of data. The average interview lasted for 20 minutes and was audio-recorded. The recorded interviews were intelligent verbatim transcribed and analysed thematically.

### Discussion

Studies reported that people are well aware of Covid-19 disease (Ashiq et al., 2020; Hayat et al., 2020; Ladiwala et al., 2021) but the limitation of their methodologies did not allow them to report unaware segments of the rural population. The people in this complex socio-cultural context perceived Covid-19 as like the normal flu virus. Many of them thought that governments and organizations were extraordinarily panicky about it. This flu existed from early times and sometimes the flu virus was mismanaged in the early days and it became permanent as the people call it now Corona. However, in the early days, it was known as *Pakhwala* and people recovered from it with Indigenous medicines with a long time duration:

*“We called it Pakhwala and the symptoms were coughing and sneezing frequently. A patient takes a year to recover”*

They believe that it is a game. The COVID-19 virus is considered a weapon of world power by them. This belief is more justified among them whenever they hear about some biological weapons. One of the participants explains:

*“Corona existed and it is time for biological things use in indirect war to destroy each other”*

Their beliefs are strengthened by further information on the destruction of developing countries, especially Muslims. For them, the main target is Muslim countries by the cooperation of Israel and Western countries:

*“Corona was made for the destruction of Muslims but it becomes out of control”*

The majority of people's beliefs about Covid-19 are shaped by dangerous conspiracy theories (Gillani, 2020). The existence of such beliefs of local masses in rural areas shows a lack of reliable and valid information circulation. Government communication is significantly effective in the awareness of the masses (Jabeen et al., 2020) but the results of this study provide space for a question on the state's role in the awareness of its masses. Studies reported even in most urban areas like Karachi people are not aware of the actual situation of Covid-19 (Mubeen et al., 2020).

Intentionally ignoring COVID-19 preventive protocols is common among people in Pakistan when they are knowledgeable about it (Ladiwala et al., 2021; Zehmis, 2020). The researcher noted widespread confusion among the respondents on the spread of Corona through personal contact and following preventive protocols. They think it is a pandemic but were perceive it does not spread through personal contact. However, describing some historical cough as pandemic which they named *Pakhwala*. They believe that the disease was spread from personal contact but no one was left alone. The dead bodies were carried at home to the graveyard. They saw avoiding Covid-19 patients and following preventive protocols as weakness of belief in God: “Those who believe in God will not be infected and if you are not protected by your good deeds. How can Covid-19 precautionary measures protect you?”

The ignorance and violation are preventive measures are similar in both rural and urban areas. The well-educated and professional are not in compliance with Covid-19 precautions (S. Khan et al., 2020). The acceptance of the Covid-19 vaccine is different in different countries (Sallam, 2021). Studies based on surveys show a significant level of willingness to vaccine globally (Ehde et al., 2021; Sonawane et al., 2021; Yigit et al., 2021) and regionally (Malik et al., 2021). However, providing equal representation of the whole population in these studies is a challenge during this pandemic. Therefore vaccine hesitancy existed and it is a major factor in ending this pandemic (Sallam, 2021).

This study suggests that wide mistrust among the people on the government were one of the main elements in vaccine hesitancy. People feel uncertain about the role of government in the Covid-19. They consider all the measures of government including the vaccination as a conspiracy against them. They thought it is a government game and no one knows about it. A participant commented:

“Why not the government send free utility items for us. They are sending vaccine to kill us. I will never vaccinate myself”

Lack of trust in governments is common phenomena globally (Chevallier et al., 2021; Razai et al., 2021; Sonawane et al., 2021). Likewise, people in Pakistan are facing poverty and the trust crises on government widen during this pandemic (N. Khan et al., 2020; Khattak et al., 2021; Troiano & Nardi, 2021; Zehmis, 2020). For them, it was clear that the government was an actor of a game

on the direction of foreign powers. Some believe that our government is always working for the happiness of western countries. So that it was a common belief that the government is exaggerating the disease and death. Counting every death in Covid-19 for the foreign aid. In this way the government hospital was perceived as a death zone and doctors as homicide agents:

“We could not believe in this government. If we become ill we do not go to the hospital. Doctors are killing people by some injection because every dead body counts as a dollar”

Thus, the mistrust among the public on their government and health care system is the main factor. The vaccine is perceived as a death tool by some. As the vaccination started from 60 and above age in Pakistan, many consider this is a game for the killing of children and elders. **The vaccine is a type of suicide, a participant elaborates:**

“One of my friends told me in the mosque that he would not visit their son house in Karachi this winter. Government authorities are vaccinating people there and this vaccine is premature death. The government want dead bodies of old people. I do not want to kill myself”

Denying the reality of Covid-19 with some belief for justification is another main factor in vaccine hesitancy (Troiano & Nardi, 2021). Lack of knowledge and some beliefs turning efforts of prevention from Covid-19 (Poland et al., 2021). Similarly denying the reality of the disease is through justification is from early polio vaccination (Lorenz & Khalid, 2012) and now in Covid-19 (Zehmisch, 2020). The people have more rely on some beliefs and the role of belief in the daily lives of rural people is a common phenomenon. Thus, many thought that we believe in God and will therefore be protected from Covid-19 and there is no need for any vaccination. Many of the participant express that God has written every action for us. Thus they were hesitant about the role of vaccine for a healthy life. As expresses:

“Whenever the time comes no one can escape from death. We believe in a fixed time of death, if it is from Corona, Diarrhea, or anything you will die. A vaccine could not protect you from death”

Meanwhile, some studies provide an alternative explanation in other counters. They consider the fear from side effects of the Covid-19 vaccine as the main factor in hesitancy (Attwell et al., 2021). Some studies report that people believe preventive protocols is enough for them (Wang et al., 2021).



## Conclusion

As Covid-19 vaccine becomes increasingly central in the prevention of this pandemic. It is important to know why head of households refuse to get vaccinated. Exploring the factors responsible for the vaccine refusal, this study established that Covid-19 is perceived as a normal flu. There is significant mistrust on the government and all the preventive strategies of government is seen as conspiracy against local masses and mass killing. Besides this rejecting the facts of existence of Covid-19 as a pandemic and fatal disease also existed. This suggests that people provide alternative explanation like they believe that death are written for them on fixed time and Covid-19 could not affect their lives. Thus vaccine is not a meaningful protection among them. Future research in vaccine hesitancy should focus on why reliable information about vaccination do not spread effectively. Furthermore, while this study uncovers causes guiding public decision making in vaccination. Studies are required to provide more insight into why trust deficit among people on the government vaccination campaign.

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