



ORIGINAL ARTICLE

COVID-19 vaccine hesitancy and negative attitudes perceived by individuals who do not accept COVID-19 vaccines: A qualitative study

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Abstract

Objective: It has been noted that in different parts of the world there are a considerable number of people who have a negative attitude to coronavirus vaccines. Therefore, the possible causes of hesitancy and rejection towards COVID-19 vaccine have been found to be worth investigating. In this process, where fierce discussions have been raised, perceptions of marginalization of unvaccinated individuals were also evaluated.

Methods: Study data were collected between November, 2021 and February, 2022. Participants were reached via social media. Within the scope of the study, semi-structured interviews were conducted with 14 participants. Interviews were conducted online or face-to-face. The data were analyzed by the method of inductive thematic analysis.

Result: As a result of the analysis, it was found that the participants thought COVID-19 vaccines unnecessary, ineffective and/or risky. A number of participants have stated that COVID-19 vaccines may be part of larger goals. However, some participants reported that they felt pressure from their social environment and perceived negative attitudes.

Conclusion: Considering vaccines unnecessary, ineffective and risky results in refusal to be vaccinated. It is seen that some of the participants have perceived of marginalization. It is recommended to provide accurate information about the disease and vaccination, to be transparent and to show an empathetic approach to these individuals.

Keywords: Vaccine Hesitancy, Vaccine Refusal, Vaccine Acceptance, COVID-19 Vaccines, Qualitative Study

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INTRODUCTION

Coronavirus (COVID-19) cases have affected the whole world over time after they first appeared in December 2019¹. Vaccine development studies have yielded their results over time, and WHO-approved, effective and safe vaccines against the COVID-19 virus have been made available.² However, after the introduction of the developed vaccines, discussions about the safety, effectiveness and necessity of vaccines arose around the world, and it was found that there were individuals who were hesitant to get COVID-19 vaccines or refused to get vaccinated.

Vaccination is the most effective method known to provide collective immunity. Vaccines have been used in the fight against many infectious agents that humanity has faced, and positive results have been obtained.³ However, there seem to be concerns about the safety and effectiveness of vaccines. This situation, together with the rejection of COVID-19 vaccines, creates an obstacle to the provision of community immunity and paves the way for a global health crisis.⁴

WHO defines "vaccine hesitancy" as a delay in accepting or refusing the administration of certain vaccines despite the availability of vaccination services. "Vaccine refusal" is considered to be the case of not receiving any vaccine at all. Vaccine hesitation is explained as a concept that varies according to time, place and vaccine, affected by factors such as trust (not trusting the vaccine or the provider), complacency (not perceiving the need for a vaccine, not valuing the vaccine). As a result, anti-vaccination, hesitation or refusal express a dynamic process as concepts that should not be considered alone.²

Literature studies reveal that factors such as gender, age, education level, ethnicity, socioeconomic level affect the intention to be vaccinated.^{5,6} In addition, there are studies showing that various variables such as COVID-19 risk perception, trust in COVID-19 vaccine, knowledge level about COVID-19, trust in the government and pharmaceutical companies, religious belief and political opinion play a role in vaccine acceptance.⁷⁻⁹ It is believed that the role of conspiracy theories generated about the COVID-19 virus and its vaccines also affects the intention to get vaccinated.^{10,11} Discussions that started after the development of COVID 19 vaccines continue fiercely in many parts of the world. In particular, it is observed that people are polarized on social media platforms, being almost pro and anti-vaccine.^{12,13} In order to ensure herd immunity, governments in different parts of the world have provided for various degrees of sanctions against individuals who have not been vaccinated and have implemented some of these sanctions. This situation has caused various reactions in individuals who have not been vaccinated. It is also a matter of curiosity how individuals who have not received the COVID-19 vaccine have been affected by these fierce discussions. In this context, when the relevant literature is examined, it is seen that the possible stigma towards individuals who have not been vaccinated is discussed and it remains unclear how unvaccinated individuals are affected by this process.^{14,15} As a result, it seems that there are an underestimated number of people who do not want to get COVID-19 vaccinations, and the issue of COVID-19 vaccine hesitancy remains relevant. For this reason, it is thought that it is important why unvaccinated individuals do not get their COVID-19 vaccines despite all the diffi-

culties that they may face in everyday life and despite the vaccine incentive policies implemented by governments. It is observed that the studies examining the attitudes towards COVID-19 vaccination in the literature were conducted mainly by quantitative method.¹⁶⁻¹⁸ However, qualitative studies conducted on this issue may reveal in detail the variables that play a role in the negative attitudes of individuals towards vaccination. In addition, how individuals who have not been vaccinated are affected by this polarizing process will fill an important gap in the literature. As a result, this qualitative study aims to understand the reasons for the negative attitudes of individuals who are hesitant about getting the COVID-19 vaccine or who refuse to get the vaccine, and to reveal how they are affected by this process in which there are vaccine discussions.

METHODS

Study Design

The study was conducted according to the case study pattern of the qualitative research method. The case study, which is one of the patterns of the qualitative research method, focuses on questions such as “how” and “why”, and deeply examines the phenomenon or event that the researcher cannot control within the framework of their own natural life.¹⁹ Considering that it is suitable for the purpose of the study, the case study pattern was used.

Recruitment

Ethics Committee Permission was obtained from the Erciyes University Social and Human Sciences Ethics Committee (Date: 28.09.2021, Number: 394). Throughout the study, the criteria of the Helsinki Declaration were taken into account. Purposive sampling is used in

qualitative studies that do not have the concern of generalizing the research results to the globe.²⁰ In this study, criterion sampling, which is one of the types of purposeful sampling, was used. In the criterion sampling, people who meet the criteria determined in accordance with the purpose of the study are included in the study.²¹ Inclusion criteria were determined as (a) being at least 18 years old, (b) not having had the COVID-19 vaccine yet, (c) being hesitant about getting the COVID-19 vaccine, or (d) refusing to get the COVID-19 vaccine. Exclusion criteria were (a) being vaccinated against COVID-19, and (b) having any psychiatric disorder that would prevent them from understanding the questions and impair their ability to assess reality.

In order to reach the participants, the announcement message was sent by the first researcher to anti-vaccine groups especially via social media platforms (Twitter, Instagram and Facebook) and an e-mail address was added for communication. First, 19 people wanted to receive information about the study by e-mail. However, 14 people indicated that they would like to participate in the study. Volunteers who contacted with their e-mail addresses were informed about the purpose of the research and how to do it, and they were given the opportunity to ask questions about the study. The participants were informed that they could skip the interview questions, pause the interview at any point, or withdraw from the interview. Verbal consent was obtained from the participants who participated online and their consent was recorded with a voice recorder. Written consent was obtained from those who participated face-to-face. Looking at the characteristics of the participants, it is seen that eight of them are women. The ages

of the participants are in the range of 24-45. Eight of the participants are undergraduate, one doctorate, one graduate, two high school graduates and two primary school graduates.

Data Collection Tool

A semi-structured interview form developed to collect data was used. The questions created by the researchers for the semi-structured interview were examined by four nurse academicians and revised in accordance with the recommendations.

Collection of Data

The data collection process carried out within the scope of the study covers the dates of November, 2021- February, 2022. In line with the preferences of the volunteers, five participants were interviewed face-to-face, and 9 participants were interviewed using Zoom application by the first researcher, who is a nurse academic. Face-to-face interviews were conducted in the participants' homes, in quiet rooms where only the researcher and participant were present. Two of the participants who participated online were connected to the Zoom application. An audio recording was taken during the interviews in accordance with the permission of all participants. The interviews lasted between 15 and 50 minutes. During the interview, the researcher took notes of what each participant said and repeated it to the participant. Then, each participant was asked if there was an answer they wanted to correct or a sentence they wanted to add. The data collection process was continued until the theoretical saturation was reached, and the interviews with 14 participants were concluded when it was seen that there were repetitive answers.

Analysis of the Data

The interviews recorded were slowed down and carefully listened to and transcribed by the first researcher. The audio recordings and transcripts were checked by the second researcher.²⁰ For the analysis, the inductive thematic analysis method was adopted by following the six steps specified by Braun and Clarke (2006). Inductive analysis is a data coding process without trying to fit the data into a predetermined coding framework or the researcher's analytical biases. Such a thematic analysis is carried out entirely based on data.²² The analytical process started with re-reading the transcriptions and re-reading them until the dataset was mastered. Then, all the sub-themes and sentences supporting the sub-themes were noted down and possible themes were created within the framework of the sub-themes. The themes are simplified until a theme map that is consistent with the data set is created. The analyzes were conducted independently by two researchers, and then the two researchers compared the emerging sub-themes and themes. As a result of the interviews conducted, the two researchers reached a consensus on the sub-themes and themes and the final theme map was created.

RESULTS

Nine main themes were identified after the data analysis was conducted within the scope of the study. The findings supporting these main themes and themes are given below (Table 1).

Table 1. Themes and Sub-Themes

Themes	Sub-Themes
The exaggerated virus	Like the flu It's not scary
The virus as a fiction	The game of pharmaceutical companies Contradictions Artificial virus
Covid-19 vaccine as an unnecessary practice	Strengthening immunity Trusting the body Non-exposure to sanctions
Covid-19 vaccine as an ineffective practice	Those who have been vaccinated get sick Failure to stop the spread
Covid-19 vaccination as a risky practice	Side effects mRNA Technology Its content is ambiguous Scientists who are not vaccinated Fast production
Covid-19 vaccination as part of major goals	Fiction Fast production Conflicting messages Commercial purposes Distrust towards the government Distrust towards organizations Distrust towards vaccine companies Bias in science Non-production of vaccines for other diseases
Marginalizing attitudes	Workplace pressure State pressure Exclusion
Non-otherizing attitudes	Lack of pressure Lack of a negative attitude Advices given
Emotional reactions to negative attitudes	Worrying Ignoring Being isolated Anger-resentment

Opinions About the COVID-19 Virus

When we look at the opinions of the participants on the COVID-19 virus, it is seen that they think the effect of the virus is exaggera-

ted and that the virus is actually no different from the flu.

In general, I think it is exaggerated. I think we have been guided and manipulated a bit...

(Participant 1)

In addition, there are opinions of the participants that the COVID-19 virus is a fiction. Participants expressed their opinions about the virus being fiction, for different reasons. Seven of the participants declared that this virus is an artificial virus and therefore stated that it is fiction.

I think it's an artificial virus. Even if it came out naturally, I think it was spread artificially.

(Participant 3)

It is seen that the participants have opinions that the COVID-19 virus is a game of pharmaceutical companies. Participant 7 stated that the contradictions experienced during the pandemic process arouse suspicion.

I think it's like swine flu, bird flu and stuff like that. Animals were affected in them. But it turned out that they were a fake, a game of pharmaceutical companies. (Participant 5)

The disclosure of the COVID -19 process, the fact that we have come to this day from people dressed as white astronauts in China at first, to people who fell on the ground, contains many contradictions (Participant7)

The Reasons for Not Getting the COVID-19 Vaccine

4 main themes were determined for the reasons of the participants not to have the COVID-19 vaccine: (1) COVID-19 vaccine as Part of Greater Purposes, (2) COVID-19 Vaccine as an Unnecessary Practice, (3) COVID-19 Vaccine as an Ineffective Practice and (4) COVID-19 Vaccine as a Risky Practice.

COVID-19 Vaccination as Part of Major Goals

It is seen that the opinions of the participants

regarding the COVID-19 vaccines are an important justification for not getting vaccinated. It is noteworthy that the participants emphasize that, in general, COVID-19 vaccines serve great purposes.

Since the virus emerged with vaccines, I did not find these vaccine rumors to be very true. It was already one of the things that caused suspicion.

(Participant 3)

There are five participants who stated that the COVID-19 virus, and therefore the COVID-19 vaccine, is part of a fiction.

How can people trust something that is found as an elixir in the continuation of a disease whose origin is already dubious. (Participant 6)

It has been stated by five participants that the conflicting messages given about COVID-19 vaccines are also a reason not to trust the vaccine.

Supposedly, two doses were enough. They've moved on to the third one now. (Participant 9)

It is seen that the participants' distrust of vaccine companies, government and organizations is also a reason for not getting vaccinated. Participant views that science may be biased and that what science says about vaccines may be questionable have drawn attention. In addition, there are participant opinions that there is no vaccine for other infectious diseases, but the presence of the COVID-19 vaccine is doubtful.

There has never been such an organization when an action was to be taken for the benefit of humanity... But it is doubtful that there is an international awareness that people are very important for this vaccine, we need to vaccinate them, we should not lose anyone. (Parti-

participant 3).

Where we are looking for scientificness, we have to say who is doing this work in the background. When you look behind some approved studies, there are pharmaceutical companies. (Participant 6)

Many people die because of other disease, too. I wonder why they couldn't find the HIV vaccine. (Participant 5)

COVID-19 Vaccine as an Unnecessary Practice

Some of the participants stated on different grounds that it is unnecessary to get vaccinated. Participant 3, who said that they were not subject to any sanction for not getting vaccinated, said the following on this subject:

I didn't get the vaccine because we didn't lose anything. But if I had suffered a loss, I would have had to. (Participant 3)

Participant 6, who stated that they preferred to strengthen their own immunity rather than get vaccinated, expressed their opinion as follows:

If immunity is what will protect me, then I develop it using other methods, not a method that I do not trust. (Participant 6)

Some of the participants said that they trusted their own body, so they did not need the vaccine. The 11th participant expressed her ideas as follows:

I don't need a vaccine. I think that the virulence potential of the virus is low, at least in young people at our age. (Participant 11)

COVID-19 Vaccine as an Ineffective Practice

The participants presented their opinion that the COVID-19 vaccine is ineffective. They sta-

ted their reasoning in this regard is that people who are vaccinated also get sick and that the vaccine does not stop the spread of the virus.

I think it is not effective. My mother was vaccinated and survived the virus twice. (Participant 12)

I think that even if the vaccine is working, it cannot stop the spread of a virus that spreads so quickly. (Participant 10)

COVID-19 Vaccination as a Risky Practice

The fact that the participants interviewed within the scope of the study found the COVID-19 vaccine risky was also an important reason for not vaccinating. There are opinions that mRNA vaccines, which is a new technology, are unsafe, the side effects and content of the vaccine are uncertain, and rapid production of the vaccine is risky. According to some participants, the presence of scientists who are not vaccinated supports the idea that vaccines can be risky.

We are talking about a method that is applied for the first time. It is produced by RNA technology and we don't know it. (Participant 6)

What is being done, now phase 1 study phase 2 study phase 3 study they call it. The fact is that some of them also received emergency use approval. Phase 3 is being tested on humans. (Participant 14).

I do not get myself shot with the vaccine whose content is not known. (Participant 2)

After a maximum of five years, the side effects of this vaccine will appear. (Participant 5)

Why haven't doctors been vaccinated. (Participant 10)

Attitudes Towards Individuals Who Have Not Been Vaccinated

While individuals who did not get vaccinated stated that they were subjected to pressure by the state, they also reported that they felt pressured by workplace managers and employees.

When we go to a cinema or a theater, or when I travel, I don't find it right to express this to the bus driver, the municipal toll booth or a second person with the HEPP code application. I think my constitutional right has been violated. (Participant 7)

I've been under a lot of pressure at work. They even threatened me with my job here. (Participant 14)

Still, a colleague of mine is even telling me that it's stupid that I haven't been vaccinated right now. (Participant 13)

Three participants (Participant 5, Participant 6, Participant 8) stated that they had not been subjected to any pressure.

I don't care if the people around me are pressuring me. And I haven't seen any pressure. Even if I see it, I will already make my statement. (Participant 8)

Participants who encountered negative attitudes spoke of feelings such as exclusion, indifference, anger. Although some participants took negative attitudes, they stated that they did not mind this situation.

For example, our name is "anti-vaccine". Whatever anti-vaccine means. There isn't a vaccine out there. We're against what doesn't exist, so... they're making fun of us saying "they've seen the big picture". They polarize, they dissociate. We are anti-vaccines, they are pro-science. We

are bad, they are nice people. (Participant 4)

They upset us. Our friends here (at work) looked at the place like beasts. They take a few steps back, when you enter some environments, they ask "are you unvaccinated, ugh" they act as if we are beasts. (Participant 14)

The situation doesn't look good. At the moment, the situation has calmed down a bit, we don't actually hear much, but I am hearing very interesting things from Austria, for example. Frankly, we are afraid, we are worried, in case something like that one day you can't go there, you can't go out, you can't do this or that... (Participant 6)

I am very angry indeed. I can't make sense of some things. I don't understand why you're vaccinated. I am not asking you this. (Participant 10)

DISCUSSION

This study examined the opinions of individuals with negative attitudes about COVID-19 vaccines regarding the pandemic process and vaccines. The opinions of the participants that the virus is actually a fiction and that the COVID-19 vaccines are a part of this fiction drew attention. There are participants who stated that the pandemic process is a game of pharmaceutical companies, that this virus is an artificial virus and that the contradictions in the pandemic process arouse suspicion. Similarly, in the study conducted by Wonodi et al. (2022), participants' views on the fact that the COVID-19 virus is not real and that politicians gain economic benefits from the process were presented.²³ The positive relationship between having skeptical thoughts about the COVID-19 pandemic process and negative attitudes towards vaccines has been supported by relevant literature studies.²⁴ Oleksy In addi-

tion, the participants stated that their reasons for not getting vaccinated is that they do not trust the government, pharmaceutical companies and organizations, and that the vaccine is a part of commercial purposes.²⁵ When the relevant literature is examined, it is seen that there are similar results. In the study conducted by Moscardino et al. (2022), it was found that there is a positive relationship between having a fair government perception and vaccine acceptance.²⁶ In the study by Heyerdahl et al.(2022), it was stated that distrust of the authorities negatively affected the acceptance of the vaccine, while in the study of Dzieciolowska et al.(2021), it was stated as the distrust of the vaccine companies.^{27,28} Sturgis The opinions of the participants that there may be bias in science are also noteworthy. In the study of Sturgis et al. (2021), in which they discussed the survey data conducted with a very large sample in 126 countries, it was stated that there is a positive relationship between trust in science and trust in vaccines.²⁹

Participants stated that the effect of the virus was exaggerated. When evaluated within the framework of the Health Belief Model (HBM), perceived seriousness is effective in shaping a health behavior.³⁰ As a matter of fact, related literature studies reveal that high perceived severity level against virus infection is associated with the intention to vaccinate.^{31,32}

Participants find the vaccine application unnecessary. The finding of seeing vaccination as unnecessary, especially because they trust their own body, can be evaluated within the framework of HBM. According to HBM, when the risk perception for a disease increases, the probability of doing the health behavior increases. Related literature studies also support this finding.^{33,34} It is seen that one of the

reasons for seeing vaccines unnecessary is the belief that strengthening immunity with different methods will be effective against the virus. Hornsey and colleagues (2020) found that vaccine hesitancy was highly correlated with distrust of conventional medicine and weakly correlated with trust in alternative medicine.³⁵ Hornsey It is thought that individuals' distrust of traditional medicine may be a reason to turn to alternative medicine. As a matter of fact, some participants stated that their trust in modern medicine was shaken and they used methods such as cupping and herbal supplements. The participants also stated that they considered the vaccination unnecessary as they have not been subject to any sanctions in their workplace or social environment. This finding can be explained with the concept of negative reinforcement within the framework of Behavioral Theory. Negative reinforcement refers to the negative stimuli that cause a behavior.³⁶ In this sense, the fact that some unvaccinated participants were not exposed to a negative stimulus because they were not vaccinated in their daily lives seems to be effective in seeing vaccination unnecessary.

The participants also expressed their opinion that the vaccines developed were ineffective. This finding is supported by relevant literature studies stating that individuals who trust the effect of the vaccine think positively about being vaccinated.³⁷ When viewed within the framework of HBM, the high perceived usefulness of a behavior for its possible consequences increases the probability of doing that behavior.³⁸

It was found that the participants' consideration of finding vaccination risky also negatively affected their intention to get vaccinated.

Considering the reasons put forward for finding the vaccines to be risky, individuals stated that they did not trust the content of the vaccines and mRNA technology, and that they were afraid of the side effects of the vaccine. In the relevant literature, conclusions similar to the findings of this study are observed. In a study conducted with physicians by Sirikal-yanpaiboon et al. (2021), it was stated that fear of side effects was an important factor in vaccine hesitancy.³⁹ The relevant literature also shows that perceptions about which vaccine has more side effects are effective in choosing COVID-19 vaccine options. Schwar- zinger et al. (2021), stated in their study that the Chinese vaccine is riskier in terms of side effects and therefore there is hesitancy about the vaccine.⁴⁰ Ofei-Dodoo et al. (2021), on the other hand, stated that mistrust in mRNA technology plays a role in vaccine hesitancy.⁴¹ In many previous studies, as in this study, it has been revealed that one of the most important factors in distrust against vaccines is rapid production.⁴² Participants also emphasized that the presence of unvaccinated scientists and healthcare professionals reduces trust in the vaccine.

It is seen that some participants perceive marginalization attitudes. Speaking about otherizing attitudes, the participants stated that they were pressured and excluded from their places of work and the state. It is seen that the participants describe different emotions in the face of the reactions they sense. While some participants stated that they did not care about negative reactions, others stated that they got angry, worried and felt excluded in the face of negative reactions they sense. Fierce debates between individuals who have and haven't had the COVID-19 vaccine can turn into accusatory and stigmatizing

statements. Although there are studies on childhood vaccines and stigma in the relevant literature, there seems to be a significant lack of literature on the stigma perceived by individuals who do not have COVID-19 vaccines. A limited number of literature studies on other vaccines have presented the perceptions of unvaccinated individuals and parents of unvaccinated children that they are subject to exclusion and marginalization.⁴³

Strengths and Weaknesses of the Study

Looking at the limited aspects of the current study, it is seen that individuals who have not been vaccinated have hesitation about participating in the study. Some people who responded to social media announcements expressed their opinion that the purpose of the study was to explore ways to force them to get vaccinated. On the other hand, there were concerns about the impartial presentation of the findings in the individuals participating in the study. Only individuals using social media were included in this study. This situation prevented the inclusion of individuals who do not use social media for different reasons such as age, education, and economic reasons. It is believed that the strong aspect of the current study is its detailed consideration of the opinions of individuals with negative attitudes towards COVID-19 vaccines. In this way, along with the analysis of the findings, a large number of themes and sub-themes have emerged.

CONCLUSION

It has been found that the idea that vaccines are unnecessary, ineffective and risky is an important factor in rejecting COVID 19 vaccines. It is seen that individuals have the idea that personal and institutional interests are

taken into account, not the benefit of society, in vaccination work. The results of this study are important to understand the negative attitude towards COVID-19 vaccines. Humanity may encounter other infectious diseases as well. That's why it's important to understand anti-vaccination. A study examining the perceived social response of individuals who have not received the COVID-19 vaccine has not been found in the relevant literature. In this sense, it is thought that this study indicates an important deficiency in the literature. It is seen that the perceived social reaction in individuals who do not have vaccination can lead to some negative emotions. For this reason, it is thought that especially qualitative studies that can be done on this subject may be useful.

In line with the results of the study, it is seen that it is necessary to be transparent about vaccine development studies and to provide accurate information about the necessity and effect of the vaccine. Awareness should be raised about the possible negative consequences of vaccine refusal. In order to prevent information pollution about the side effects of vaccines, scientific data should be communicated to the public through the media and social media. The public should be educated for media and social media literacy. Instead of marginalizing individuals who refuse vaccinations, an empathetic approach should be shown.

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