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Understanding COVID-19
Vaccine Hesitancy in Georgia:
A sociological analysis

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Abstract

The COVID-19 vaccination rollout is low in Georgia. Only 34% of the population is vaccinated with at least 2 doses and a booster. Previous research on vaccine hesitancy has indicated numerous underlying factors such as education, age, and controversial or paranoid beliefs. The goal of this thesis is to determine and analyze the prevalent underlying factors of vaccine hesitancy in Georgia and if the possible reasons draw on religion and mistrust. Based on a review of literature about vaccine hesitancy during COVID-19 in other countries and Georgian articles on the activities of the Georgian Orthodox Church and the Georgian medical personnel during the Pandemic, interviews were conducted with anti-vaxxer and vaccine-hesitant individuals from Georgia. Respondents were evenly divided regarding gender, residence, and position toward the COVID-19 vaccination (anti-vaxxers or vaccine-hesitant). Analysis of the responses demonstrated that religion is a dominant factor among anti-vaxxers, whereas mistrust in the safety of the COVID-19 vaccines and fear of possible future side effects were identified by vaccine-hesitant individuals. Lower education and residing in rural areas are also related to stronger opposition to vaccination. The findings demonstrate that education and religion influence Georgian individuals' position toward the COVID-19 vaccines.

Abstrakt

Očkování proti COVID-19 je v Gruzii na nízké úrovni. Pouze 34 % populace je očkováno alespoň dvěma dávkami a posilovací dávkou. Předchozí výzkumy váhání s očkováním poukázaly na řadu základních faktorů, jako je vzdělání, věk a kontroverzní nebo paranoidní přesvědčení. Cílem této práce je zjistit a analyzovat převažující základní faktory váhavosti v očkování v Gruzii a zda možné důvody čerpají z náboženství a nedůvěry. Na základě rešerše literatury o váhání s očkováním během COVID-19 v jiných zemích a gruzínských článků o aktivitách gruzínské pravoslavné církve a gruzínského zdravotnického personálu během pandemie byly provedeny rozhovory s odpůrci očkování a osobami, které s očkováním váhají, z Gruzie. Respondenti byli rovnoměrně rozděleni z hlediska pohlaví, bydliště a postoje k očkování proti COVID-19 (odpůrci nebo příznivci očkování). Analýza odpovědí ukázala, že u antivaxerů je dominantním faktorem náboženství, zatímco u jedinců, kteří s očkováním váhají, byla identifikována nedůvěra v bezpečnost vakcíny COVID-19 a strach z možných budoucích nežádoucích účinků. Se silnějším odporem k očkování

souvisí také nižší vzdělání a bydliště ve venkovských oblastech. Zjištění ukazují, že vzdělání a náboženství ovlivňují postoj gruzínských jedinců k vakcínám COVID-19.

Keywords

COVID-19, vaccine-hesitancy, vaccination, anti-vaxxer, religion, the Georgian Orthodox Church, Georgia.

Klíčová slova

COVID-19, váhání s očkováním, očkování, anti-vaxxer, náboženství, Gruzínská pravoslavná církev, Gruzie.

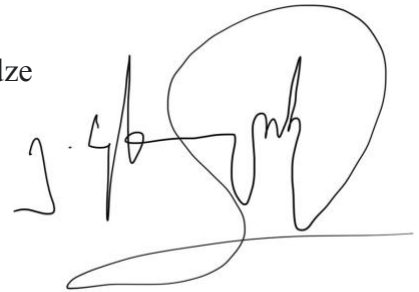
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Declaration of Authorship

1. The author hereby declares that he compiled this thesis independently, using only the listed resources and literature.
2. The author hereby declares that all the sources and literature used have been properly cited.
3. The author hereby declares that the thesis has not been used to obtain a different or the same degree.

Prague, April 25, 2023

Erekle Khurtsidze

A handwritten signature in black ink, consisting of stylized, cursive letters. The signature is written over a horizontal line that extends across the width of the signature.

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Introduction

The COVID-19 pandemic originated in Wuhan, China in December 2019 and became a world crisis shortly after. It is an understatement to say that COVID-19 took the world by surprise. Most countries quickly passed drastic measures to fight the unknown virus; the most prevalent measures included lockdown of airways, restriction of movement, and stoppage of businesses such as restaurants, clubs, gyms, etc (Borowy, 2021). Concisely, everything that was not necessary and essential for 'survival' was closed for an indefinite period. Some countries, such as France even restricted movement in the streets without temporary passes; these passes were granted for several reasons, for example: going to the supermarket or pharmacy, walking a pet, emergency situations, etc (Or et al., 2022). Especially during the first year of the outbreak, the pandemic took a significant toll on human life; the number of deaths officially reported during the first year of the outbreak is around 1.8 million, but it is estimated that additional 1.2 million deaths were caused by the unreported COVID-19 cases (WHO, n.d.).

However, as time passed and researchers throughout the world worked hours and gained more information about COVID-19 variants, they started working on developing vaccines. The world's number one priority right from the outbreak of the virus was to create an effective treatment - a vaccine to fight the virus successfully. Even though the first successful vaccine was developed in December 2020, people started discussing the topic much earlier; a lot of people developed strong opinions and different groups arose in terms of looking forward, opposing, or being hesitant about the idea of being vaccinated against COVID-19. After researchers announced that vaccines were effective and ready to use, national governments began ordering huge amounts of doses hoping that the majority of people would get vaccinated. According to the website of Our World in Data, some countries such as Israel managed to vaccinate 65% of their population with all required doses (and additionally, 6% with at least 1 dose), and some, such as Georgia, could not manage it and only 34% of Georgians are fully vaccinated (additional 10% with at least 1 dose) (Our World in Data, October 13, 2022).

In Georgia, only 34% of the population is vaccinated with sufficient doses and 10% have incomplete (less than 2 doses and a booster) doses (Our World in Data, October 13, 2022). The main goal of the thesis is to find out, understand, and analyze a) the reasons behind the low rates (34%) of vaccination and b) attitudes and beliefs towards vaccination in Georgia. The thesis aims to understand the socio-cultural factors affecting the low vaccine uptake in Georgia. In order to achieve this objective, the thesis draws on semi-structured interviews with Georgians who are hesitant to get vaccinated, who have not been vaccinated or have incomplete doses (less than 2 and a booster), or who are anti-vaxxers.

More specifically, the thesis will discuss Georgian citizens' attitudes and opinions. There are many opinions on why vaccination is ineffective, unnecessary, and fraudulent. Numerous controversial theories exist about vaccines and these theories have a wide range of followers (Sichinava, 2021). Especially in the rural areas of Georgia, many people do not have a high educational level, access to the Internet and/or information, and time or wish to watch television and follow national and international news. Some people started opposing vaccination because of the lack of information and widespread controversial theories; according to the Moscow Times (2020), in May 2020, a Russian Communist Leader Gennady Zyuganov linked COVID-19 vaccination with Western countries putting tracking devices via vaccine in the organism of patients to obtain information.

Particular attention will be given to religiosity considering that Georgia is a highly religious country, with 80% of the population being Orthodox Christian believers and highly trusting the Georgian Orthodox Church as an institution (BBC, 2013). Georgian citizens who did not get vaccinated often cited the Orthodox Church as a cause even though the Georgian Orthodox Church (GOC) and the Georgian religious leader - Patriarch Ilia II have never given official statements or suggested that the vaccines are sacrilegious and that vaccination goes against the Orthodox Church; this could have resulted due to the conflict between GOC and the Georgian government which began during Easter 2020 when numerous priests decided to conduct liturgy and the sacrament despite new regulations and recommendations from the Georgian Public Health Ministry and the Georgian government (Metreveli, 2022). There have been countless different versions unofficially released by priests or civilians of why vaccination is against religion and all are based on personal opinions. Furthermore, many priests and bishops have given personal

statements against the COVID-19 vaccination independently; these priests go against the fundamentals of the GOC and use their positions to speak out their opinions ‘in the name of religion’. Numerous Georgian anti-vaxxer priests preach against vaccination and teach their parish to avoid COVID-19 vaccines. For instance, some priests have given statements that the vaccine is a mark of the antichrist or that true believers would not get infected by the virus (Lomsadze, 2022. Metreveli, 2022).

The thesis will be organized as follows. In the first chapter, I will discuss the existing academic literature and theories that could possibly explain low vaccine hesitancy; the section will begin with the foreign academic literature investigating the phenomenon of COVID-19 vaccine hesitancy in general and will be followed by a narrowed discussion of the Georgian sources, such as academic articles and official surveys. The second chapter will present the research questions and the methodology for data collection and data analysis. The next chapter will be the analysis of data. Finally, I will draw conclusions and summarize the findings of the thesis.

1. Theories Explaining Vaccine Hesitancy

The COVID-19 pandemic has caused crises and panic worldwide, yet the vaccine development for covid has been the fastest in history (Glassman et al, 2022). Even though the world had been awaiting a successful treatment for COVID-19 since the beginning of the pandemic, the uptake of the vaccine was low (Troiano & Nardi, 2021). A lot of people were scared by the fast pace of the development of vaccines (Machingaidze & Wiysonge, 2021), the controversial theories surrounding it, and the possible side effects no one knew due to the lack of pre-testing (Archard, 2020). Numerous studies explore possible underlying factors for vaccine hesitancy during COVID-19; there are many other academic articles conducted before COVID-19 that explore the phenomenon in general. According to Noni MacDonald (2015), labeling and defining vaccine hesitancy is a difficult task; firstly, ‘hesitancy’ has a negative connotation and creates a stigma around the term. Vaccine hesitancy is not always as simple as ‘being hesitant to get vaccinated’, it could also imply that a person has concerns about the safety and reliability of a specific vaccine,

not all vaccines (MacDonald, 2015). Consequently, COVID-19 vaccine hesitancy and childhood vaccine hesitancy can differ.

The possibilities behind the term are abundant, thus creating a universal definition is difficult. Nonetheless, the thesis follows the definition of vaccine hesitancy as "... [a] delay in acceptance or refusal of vaccination despite the availability of vaccination services. Vaccine hesitancy is complex and context-specific, varying across time, place and vaccines." (MacDonald, p.4163, 2015). According to Dave Archard's article following the first successful COVID-19 vaccination in December 2020, vaccine hesitancy existed long before COVID-19 vaccines were developed; the hesitancy was based on several different aspects such as futile controversial theories, the fast pace and procedures of developing vaccines (insufficient time for the testing of vaccines on humans), and fears of unknown and unexpected future effects (Archard, 2020). One of the underlying factors for vaccine hesitancy is the fear of vaccines not being safe and reliable (Glassman et al, 2022).

Social media is one of the most widely applicable tools of disinformation; it can be used to reach millions of people in a matter of seconds. It has been noted that a great deal of Covid-related disinformation has been pushed out by Russian bots and troll farms, such as "... [COVID-19] was an American-developed weapon or caused by 5G cellular networks..." (Wilson & Wiysonge, p.2, 2020). Furthermore, Russian disinformation did not remain on social media only; political leaders, entertainers, and public speakers used every opportunity to blame the West for bioengineering a weapon intentionally to target the enemies while being broadcast to millions on television (Mackinnon, 2020). Spreading such information hurts the overall reliability of covid vaccines; it increases the number and severity of the controversial theories and ideas people base their opinions on (Wilson & Wiysongee, 2020). As highlighted by Machingaidze and Wiysonge (2021), technology, the internet, and social media platforms can be seen as positive tools for supporting a good cause, but in terms of covid, there is more negative and untrue or incomplete information being spread across the internet about the covid vaccines than helpful and reliable facts (p.1339).

In addition to social media disinformation, numerous factors can play a significant role in vaccine hesitancy. A comparative study conducted by Gianmarco Troiano and Alessandra Nardi (2021)

analyzed 49 peer-reviewed published articles on COVID-19 vaccine hesitancy in different countries and social groups. The results of each article were analyzed and 12 categories were created of possible underlying factors influencing the low vaccine intake: ethnicity, working status, personal belief, religiosity, politics, gender, education, age, income, COVID-19 infection, concern about COVID-19, and working in healthcare settings (Troiano & Nardi, 2021). There are numerous predisposing factors different research papers manifest. Age, gender, social and working status, religiosity, and education are factors that will be considered in the thesis. Troiano and Nardi (2021) have highlighted that unemployed or low-income individuals had a lower acceptance rate of the COVID-19 vaccines; investigating education as a factor yielded conflicting results but reliably suggested that individuals with insufficient education (i.e. no high school or undergraduate diploma) also had lower acceptance rates; in terms of gender, the study concluded that women had lower acceptance of COVID-19 vaccination.

A similar study done by Jamie Murphy and colleagues (2021) in the UK and Ireland has also found that women are more likely to be vaccine-hesitant than men (p.5). Both studies confirmed that lower age correlated with higher vaccine hesitancy; middle age has been highlighted to be the most prevalent age group in hesitancy (Troiano & Nardi, 2021. Murphy et al, 2021). Gianmarco Troiano and Alessandra Nardi (2021) did not find any correlation between religion and vaccine hesitancy (pp.246-249), but the countries included in the research were France, USA, UK, Turkey, Italy, Israel, Malta, China, Canada, Japan, Spain, Switzerland, none of which are Orthodox Christian. This is also why specific analytical attention will be given to religion due to its relevance in the targeted country.

Last but not least, the focus on conspiratorial, religious, or even paranoid beliefs has been given in some psychological accounts, including the work of Jamie Murphy and colleagues (2021) which explores psychological characteristics accompanying vaccine-hesitancy and vaccine-hesitant individuals. Furthermore, despite variation in social backgrounds (social and economic status, political orientation, etc), all vaccine-hesitant individuals had similar psychological backgrounds, such as strong religious and/or conspiratorial beliefs, and extensive distrust of experts (i.e. scientists) (Murphy et al, 2021). Age, gender, social and economic status, religious beliefs, and

education are the predisposing factors numerous studies have highlighted and that the thesis will explore focusing on Georgia.

1.2. Georgia and Vaccine Hesitancy

The hesitancy of vaccination is frequent in a small developing country with a population of 3.9, almost 4, million (Worldometer, n.d.) - Georgia. According to Our World in Data, only 44% of the population is vaccinated fully or at least with one dose in total in Georgia (Our World in Data, October 13, 2022). Even though empirical data on predisposing factors of vaccine hesitancy is lacking in terms of Georgia, many non-governmental organizations or media outlets have published articles backed up with statistical data about vaccine hesitancy in Georgia. There are a few articles by Georgian authors concentrating on vaccine hesitancy from different perspectives. This chapter provides a brief overview of the existing literature with Georgian provenience to contextualize the forthcoming analysis by existing accounts of vaccine hesitancy in Georgia.

The vaccination process began in March 2021; initially, the priority was to vaccinate healthcare workers as they were the first respondents and more susceptible to the virus, but only 10% of the group was scheduled for the vaccination (Aladashvili et al., 2022). A Georgian author Giorgi Lomsadze (2022) discusses one of the anti-vaxxer groups (and plausibly most surprising) - healthcare workers. As Lomsadze underlines, the data published by the National Center for Disease Control and Public Health (NCDC) concludes that almost a third of working medical personnel were not vaccinated at the beginning of 2022. Certainly, the latter complicates the effectiveness of positive campaigns to boost and support vaccination in the country. According to Sarah Tyler for World Health Organization (2022), vaccinated healthcare workers positively affect vaccination rollout due to the trust patients have in them. Additionally, unvaccinated healthcare workers are more susceptible to the virus since they are more exposed to it while caring for infected individuals, and they are much more likely to spread the virus and infect weakened patients (Sarah Tyler, WHO, 2022). As Tyler (WHO, 2022) noted, according to the National Center for Disease Control and Public Health of Georgia (NCDC) in the 2020/21 season 60-80% of Georgian healthcare workers were vaccinated with 2 primary doses, and only 18% with additional third dose

- booster. Lomsadze also highlights that medical personnel and generally, people from rural areas are more hesitant and strongly opinionated (2022); citizens who had been infected and had recovered are advocating for their rights not to get vaccinated, since they already have antibodies for Covid.

According to a study conducted before the COVID-19 pandemic, communication can be one of the effective tools to support vaccination and prevent hesitancy (MacDonald, 2015). When in March 2021 vaccination process began in Georgia and it was not successful, the government altered the strategy to increase the vaccination rollout; information campaigns about the safety and effectiveness of vaccines, positive propaganda on mass media and social media platforms, and monetary incentives for vaccinated individuals were developed to motivate and encourage unvaccinated and hesitant citizens (Aladashvili et al., 2022). The vaccination rollout did not exceed 35% of the total population by the end of early 2022 (Aladashvili et al., 2022), and currently, the number stands at 44% (Our World in Data, October 13, 2022); all efforts were futile for several reasons: numerous high-ranking politicians and religious representatives were openly advocating against vaccination (Aladashvili et al., 2022) and a great fraction of medical personnel were neglecting vaccines evoking mistrust from the general population (Lomsadze, 2022). To reformulate, the low rollout of vaccination in medical personnel not only influenced patients' decisions to neglect vaccination but also invoked mistrust toward healthcare workers (Aladashvili et al., 2022).

1.2.1 Georgian Orthodox Church

Georgian Orthodox Church (GOC) is an ancient and one of the most highly valued and trusted institutions in Georgia (Britannica, 2015) with around 80% of the total population being a member of GOC (U.S. Department of State, n.d.); positions and statements of GOC are highly influential and important to the followers. GOC played a significant role in vaccine-hesitancy and the wastage of the treatment vials; even though initially the institution conveyed an overall neutral position towards vaccination, there were numerous "... individual priests and bishops who expressed their strongly negative attitude toward COVID-19 vaccines..." (Aladashvili et al., p.3, 2022). Every priest and bishop under the GOC has its own devotees and supporters; they attend liturgy and

divine services every week and listen to their priests/bishops preach. The priests and bishops who were openly against vaccination included their positions and justified it wrongfully in religious terms and motives in front of crowds (Metreveli, p.14, 2022). Afterward, a lot of representative members of GOC openly supported a continuation of the religious services, such as liturgies and communions, and traditions, such as sipping sacred wine from the same spoon during the communion even though the latter was strictly against the new restrictions of the pandemic (Metreveli, p.12, 2022).

1.2.2 Education and Social & Economic Status

A public opinion survey conducted in Georgia on behalf of the “Center for Insights in Survey Research” from 2 to 26 February 2021 explores and presents statistics for residence, gender, age, occupation, opinions and attitudes towards vaccination, etc (2021). According to the survey, 20% of participants from all around Georgia responded that they would get vaccinated as soon as possible, and 39% would not get vaccinated. Religion is not included in the survey as a factor, which further affirms that there is a gap in research on the relationship between religion and vaccine hesitancy in Georgia. As David Sichinava affirms in a datablog (2021), according to a CRRC Omnibus survey conducted in Georgia and published in January 2021 men are more likely to get vaccinated than women (52% and 45% respectively); furthermore, individuals with higher education were more likely to get vaccinated than people with incomplete or lower education (53% and 46% respectively) (Sichinava, 2021). The final report of a series of surveys conducted by the Caucasus Research Resource Center (2020) in Georgia during the pandemic, explores the relationship between Religion and attitudes toward COVID-19 vaccination; as the report notes, in order “to understand public opinion on the issue, the first wave of the survey included questions on whether respondents attended Easter liturgy and attitudes towards the use of the communion spoon in the church.” (CRRC, p.43, 2020). Only 4% of the Christian participants attended Easter liturgy in 2020; 33% approved, 21% were uncertain and 43% disapproved of the use of a communal spoon (CRCC, 2020). The survey did not include other influential factors of GOC on the participants.

2. Methodology

In order to gain deep insights and results for the topic of the thesis, it is essential to understand it as qualitative research instead of quantitative. The core element of the qualitative study is interpretation; a researcher attempts to explore the meanings participants assign to their thoughts, answers, behaviors, experiences, etc (Aspers & Corte, 2019). The thesis utilizes empirical data from other similar developing countries undergoing more or less the same obstacles in terms of vaccination; it references numerous academic articles and cross-cultural surveys on possible underlying factors for vaccine hesitancy. Moreover, official Georgian websites and resources, such as the website of the Ministry of Health are used to support the analysis with statistical data. Official surveys of the Caucasus Research Resource Center are utilized to provide reliable statistical data on Georgia. Furthermore, to gain first-hand data on this specific and hardly researched topic, online oral interviews will be conducted with Georgian citizens from both **urban** and **rural** areas of Georgia. Semi-structured interviews were carried out and included biographical and specific, Covid-related questions to understand respondents' backgrounds, religious affiliations, etc., and probable underlying factors for their positions. The research sample will include Georgians who are vaccinated with insufficient doses (i.e. 1 or 2 without a booster), who were/are hesitant to get vaccinated, and anti-vaxxers.

2.1 Research Questions

The thesis will cover two important parts: a) Are the reasons for vaccine hesitancy drawing on religion, mistrust, or global sources? (considering conspiracy theories regarding “the West”) and b) How is vaccine hesitancy related to education, residence (urban or rural), and the religion and Georgian Orthodox Church? The paper aims to find out the main underlying factors and beliefs of Georgians who are hesitant to get vaccinated, if residence (urban/rural) and education level affect their positions, what controversial theories exist and which are the most prevalent and why, and the attitudes and opinions of different categories of citizens, such as insufficiently vaccinated people, people who are hesitant to get the vaccine, and anti-vaxxers.

2.2 Research Sample

Considering the specificity of the research sample made of vaccine-hesitant Georgian citizens, this qualitative study is based on convenience sampling; the latter suggests that the sample for qualitative research is hand-picked to represent a social group that is aimed to be studied (Ritchie et al., 2003). The thesis will have prescribed selection criteria; participants must be above 18 years old due to legal issues, they must have insufficient doses of COVID-19 vaccines, be hesitant to get vaccinated or be anti-vaxxers, the sample should include both genders and different age categories, and must be an adequate representation of both rural and urban areas. The research sample sizes are generally small in qualitative studies. At some point, increasing the sample size no longer issues new evidence or features. Thus, the sample size for the thesis will be around 10 individuals representing different desired social groups.

The aim was to increase the heterogeneity of the sample in terms of gender and age as much as possible; as mentioned above, numerous international and Georgian studies and surveys have concluded that women are more likely to be hesitant or against vaccination than men (Sichinava, 2021) and that the younger a person is more likely he/she is to be against vaccination (Troiano & Nardi, 2021. Murphy et al, 2021). Furthermore, the type of residence (rural or urban) in Georgia has not been identified as a factor in any of the Georgian academic literature. Thus, the type of residence and education could potentially play a significant role in positions and attitudes toward vaccination and was considered as part of the sampling.

The respondents will be acquired through the author's acquaintances and will be contacted online. Before contacting the participants, their vaccination history (the number of vaccines they got) or their attitudes towards covid vaccination (their hesitancy or strong opposition to vaccination) will be confirmed with a mutual acquaintance; it will be verified at the end of the interviews. The respondents will be provided with the necessary information about the purpose of the interview and will be notified of their rights before agreeing to participate.

2.3 Interviews

Conducting an oral interview is one of the most beneficial and popular methods of gathering data for qualitative research. The goal of the thesis is to find out patterns and characteristics that could potentially affect vaccine hesitancy among Georgian individuals. Individual details (age, gender, etc) and attitudes toward COVID-19 vaccination need to be discovered through the interviews. Since the thesis aims to understand the factors that play a role in vaccine hesitancy, separate interviews will be very unique as individuals will be representative of different social groups with similar attitudes.

Interviews were semi-structured, instead of fully scripted, to maintain the natural progression. The interviews will have 6 pre-created themes (Appendix 1). A few questions will be prepared for each theme but not necessarily used since individual interviews require different approaches and progressions. For instance, questions for the theme “the COVID-19 vaccine-related beliefs and attitudes” are a) What are your thoughts about vaccination? How do you feel about Covid vaccination?; b) How do you think vaccines work?; c) Did anyone you know experience adverse side effects?; According to Robin Legard and colleagues (2003), if a participant is not providing detailed answers the researcher can ask ‘perspective-widening questions’; these types of questions encourage respondents to look at the issue from different perspectives and give multi-dimensional answers (Legard et al., 2003). Furthermore, avoiding leading questions in the interviews is generally highly essential; especially in research that has forecasted possible influential factors (Legard et al., 2003). Depending on the development of the first few themes, the third theme could need to be altered. If a person is not a believer or a strong devotee, religion will not be underlying extensively and it will exchange positions with other factors that could influence a person’s position. Furthermore, it is not necessary to cover the themes chronologically; it will be essential to start with the general background questions but the following sections will be predisposed and naturally decided by the individual respondents as their narrative will lead the course. It is important to have most of the themes covered at the end of the interview.

2.4 Ethical Considerations

The ethical guidelines provided by Siti Roshaidai Mohd Arifin (2018) were followed as part of the research study. Respondents were informed about their rights and will have sufficient time to ask questions. Participants' personal details will be kept anonymous (Mohd Arifin, 2018). The author of the thesis will take into consideration the sensitivity of the topic and will communicate with the respondents with respect nonetheless of their opinions and attitudes towards vaccination. Additionally, the author understands the importance of honoring colleagues' work and will use academic resources coherently.

2.5 Data Analysis

The data for the thesis will be gathered through interviews, and thematic analysis will be used extensively to point out and investigate patterns that arise. Thematic analysis is a data analysis "...method for identifying, analyzing, and reporting patterns (themes) within data." (Braun et al., p.6, 2014). A thematic analysis will enable the thesis to evolve in numerous directions, enabling interpretations and possibilities (Braun et al., 2014). Looking in-between the lines of transcripts and comparing the backgrounds' of respondents will produce one or several patterns that could explain the phenomenon. Considering the aim of the thesis and the complex nature of the topic, the inductive approach is suitable to investigate and explore predisposing characteristics for vaccine-hesitancy among Georgians. The inductive approach (also known as 'bottom-up') is based on concentrating on the new and raw data. The inductive approach does not concentrate on or consider preconceptions about the outcomes; the patterns emerge after gathering and exploring data (Braun et al., 2014). The theories are created and progress as the data and coded transcripts evolve. The inductive approach allows the researcher to follow numerous unforeseen courses of development and come up with different interpretations. The thesis discusses possible factors that could affect vaccine hesitancy in Georgia and aims to understand elements that influence hesitancy of vaccination and if the discovery is comparable to the existing literature.

Acquired voice recordings of the interviews will be transcribed and thematically coded using the free coding software ‘taguette’ (taguette.com). The interviews will be coded with the possibility that new separate codes could emerge in any interview. Coded transcripts will be analyzed exploring possible **intersecting** ideas, background characteristics, attitudes, and possible influential factors; the results will be interpreted in the analysis part of the thesis and the outcomes will be discussed in the remainder of the paper. In the first steps of the data analysis process respondents’ attitudes, ideas, beliefs, experiences, and behavior will be highlighted through thematic coding - exploring their answers (what they say and how they say it) and reading in-between the lines will aid in understanding their thoughts and **them** as individuals. Subsequently, individual respondents’ answers and coded transcripts will be analyzed to find themes (ideas that could be prevalent across all interviews); looking at the interview transcripts altogether will bring out a recurring pattern(s) that can be pointed out in more than one interview (Braun et al., 2014). The emerging patterns will be further analyzed taking into account participants’ backgrounds to understand if age, gender, the type of residence (urban or rural), and social factors influence, forecast, and explain individuals’ positions on the COVID-19 vaccination.

3. Analysis

COVID-19 vaccination rollout had been low since the first hundreds of vaccines arrived in Georgia. The discussion of COVID-19 vaccination began on the Georgian talk shows, television news, and during everyday conversations before the creation of vaccines; the votes were split between civilians who were eagerly awaiting vaccines, who were hesitant and scared of the new treatment, and who were strongly opposing the idea. Nowadays, more than half of Georgian citizens are unvaccinated (Our World in Data, October 13, 2022). The reasons behind the low vaccine acceptance could be religion, education, and the belief system of individuals as theorized by a few Georgian authors cited in previous sections (Lomsadze 2022., Aladashvili et al., 2022., Metreveli, 2022).

Ten semi-structured interviews were conducted with five male and five female Georgian citizens; the youngest respondent was 21, and the oldest was 75. Five participants reside in rural areas of

Georgia and only one has a university degree; the other five live in cities and all have university degrees. Respondents were identified as anti-vaxxers if they are strongly opposed to the COVID-19 vaccination. Five out of ten individuals are anti-vaxxers, and others are/were hesitant to get vaccinated. Furthermore, four out of five anti-vaxxers reside in rural areas, and only two have university degrees. Four out of five vaccine-hesitant individuals live in cities. Only one vaccine-hesitant respondent does not have a university degree and lives in a rural area (see Table 1 for further details below). Three out of five anti-vaxxers indicated religion as a reason for opposing COVID-19 vaccination, one indicated mistrust of the COVID-19 vaccines as the main reason; the last one stated that the reason for his position was that COVID-19 was an artificially created virus to reduce the human population. In addition to all anti-vaxxers, all five vaccine-hesitant individuals revealed mistrust of COVID-19 vaccines due to the fast pace of creation. Four respondents highlighted their age and the good condition of their immune system as a reason to avoid COVID-19 vaccination; in their beliefs, their organism would defeat the virus itself without any artificial additive. Out of these four respondents, two are anti-vaxxers.

Nickname	Gender	Residence	Education	Age	Position	Religion	doses
Tsira	F	Urban	University	73	Anti-vaxxer	Strongly religious	0
Tina	F	Rural	School	49	Anti-vaxxer	Strongly religious	0
Zura	M	Rural	School	36	Anti-vaxxer	Strongly religious	0
Shorena	F	Rural	University	38	Anti-vaxxer	Religious	0
Dodo	F	Urban	University	63	Hesitant	Religious	1
Lasha	M	Urban	University	21	Hesitant	Religious	2
Mariam	F	Rural	School	26	Hesitant	Religious	0
Revaz	M	Urban	University	30	Hesitant	Religious	1
Zaza	M	Urban	University	35	Hesitant	Religious	0
Gia	M	Rural	School	75	Anti-vaxxer	Religious	0

Table 1: *Details of the respondents.*

3.1 Underlying Reasons for Vaccine-hesitancy

The analysis of the interviews unveiled four main reasons for vaccine hesitancy: a) the fast pace of development, insufficient human testing and unforeseen future effects of the COVID-19 vaccines, b) contradictory and constantly changing information about the vaccines and necessary doses, c) exaggerated effectiveness and necessity of the vaccines for young and healthy individuals, and d) the suspicions caused by the medical personnel opposing and avoiding vaccination.

Firstly, anti-vaxxers as well as vaccine-hesitant individuals expressed their doubts about the effectiveness and safety of the COVID-19 vaccines. All ten respondents noted the unprecedented fast pace of the vaccine development and unknown possible side effects as fuel for suspicion and mistrust. Most participants highlighted the lack of time for sufficiently testing vaccines on humans before releasing them to countries. Some also noted that trustworthy vaccines need years to be advanced and released for public use. Moreover, respondents cited different side effects they believed could be caused by the COVID-19 vaccines: the possible side effects mentioned during the interviews include blood clotting and anaphylactic shock as immediate effects, and impotency and reproductive health problems as future and long-term effects. As cited in the previous sections of the thesis, numerous foreign academic articles highlighted the fast pace and probable side effects of the COVID-19 vaccines as the most prevailing factor in vaccine hesitancy (Machingaidze & Wiysonge, 2021., Archard, 2020).

Secondly, vaccine hesitancy and suspicions were strengthened by the opposing statements on the Internet and contradictory news being broadcasted on different channels on national television. Respondents highlighted how confusing and undependable the information was. A respondent highlighted that if she had trusted the official information that was released regarding the COVID-19 vaccination, she would get vaccinated. Contradictory information appears to be one of the crucial factors in vaccine hesitancy in Georgia. Opposing information released by the officials or media channels fueled suspicions about the reliability of the COVID-19 vaccines; for instance, increasing the number of doses necessary to strengthen the immune system against COVID-19 decreased respondents' trust: "They were first saying that after one dose you would be free and

safe, then they said that two doses were necessary, then three... And all this caused suspicions and mistrust on people's side.”

According to participants, initially, it was stated that one dose would be sufficient to avoid the virus. After a short time, it was stated that not one, but two doses were necessary to develop immunity against the virus. However, when vaccinated and COVID-positive individuals got severely sick, the information was altered to indicate that the vaccine would not guarantee avoidance of the virus but would aid in recovery and the severeness of one's condition. It appears that COVID-19 vaccine hesitancy resulted from mistrust in the information provided by the officials, the fast pace of development of the vaccines, possible and unexplored long-term side effects, medical personnel opposing the vaccines, and the rapidly increasing number of infected or deceased vaccinated individuals.

Thirdly, as Lasha stated that “...the COVID-19 vaccines are a lot less effective than was officially stated and advertised.” (Lasha, male, urban, religious). The COVID-19 vaccine seemed redundant and defective as the number of infected and deceased patients rapidly and steadily increased despite vaccination and despite advertising it as effective and beneficial: “When I see many people who got vaccinated a number of times are infected and even die, how can I believe that it is good for me?” Furthermore, Dodo said “I think people were opposing COVID-19 vaccines because none of the manufacturers took the responsibility for the side effects and effectiveness, it was very vague. People were scared and did not believe in the safety of the vaccines.” (Dodo, female, urban, religious). Most vaccine-hesitant individuals indicated that the COVID-19 vaccines were nonfunctional and flawed. Moreover, three anti-vaxxer respondents believe that the COVID-19 vaccines deteriorate patients' health instead of aiding in their recovery. These beliefs seem to be often fueled by the increasing statistics of the vaccinated deceased or infected individuals, and the changing information about the necessary doses:

“First, they were saying that vaccinated people would not be infected, then when vaccinated people got COVID-19 they changed the statements and said that vaccinated people would have mild symptoms and recover faster, but in the end, it appeared that the vaccines did not make any

difference. More people who got vaccinated multiple times got very sick and died.” (Gia, male, rural, religious)

Finally, almost half of the medical personnel did not get vaccinated and advocated for their rights to decline the mandatory vaccination in Georgia (Lomsadze, 2022); this further intensified the suspicions many civilians held towards COVID-19 vaccines. As many respondents noted, doctors and nurses opposing vaccination deepened mistrust and reliability in the safety and effectiveness of the COVID-19 vaccines; for instance, Zura said, “It is very odd when doctors are avoiding and opposing vaccination and at the same time, force you to get it. When you say that something is good, it is logical that you would want it for yourself.” (Zura, male, rural, strongly religious).

3.1.1 Sociodemographic Factors Influencing the Positions toward the COVID-19 Vaccination

Troiano and Nardi (2021) concluded that younger individuals were more vaccine-hesitant (especially middle-aged), and people with higher education were more open to getting vaccinated. Possibly, individuals with higher education can perceive more benefits related to the vaccination and the return to normality, including their business/working aspirations or the possibility to travel abroad, often enhanced with the vaccination process. On the other hand, lower education can result in an inability to research and access adequate sources, verify trustworthiness, and understand the information about COVID-19 and its vaccines; the lack of academic skills or the language barrier can affect the extent and reliability of the accessed information and can lead to poor interpretation of the material. A few participants noted that they followed national and Russian TV channels and could not follow foreign (Western) sources due to the language barrier. As mentioned in the previous sections, Russian disinformation, controversial theories about the “West” and negative propaganda towards the COVID-19 vaccination was prevalent during the Pandemic (Wilson & Wiysonge, 2020., Mackinnon, 2020). Generally, most Georgians, especially the elderly, speak the Russian language almost as well as Georgian since Georgia was one of the members of the Soviet Union; following Russian TV channels and news is habitual for most Georgians. Consequently, the lack of education and skills noted above accompanied by the exposure to Russian TV channels

and possible disinformation and negative COVID-19 vaccination propaganda could be a potential factor in developing strong dislike, opposition, and mistrust of the COVID-19 vaccination.

Furthermore, due to the lack of resources, the quality of education in rural areas of Georgia is poor; the financial stability is also often lower in rural areas of Georgia and fewer citizens residing in rural areas attend universities as often they need to provide for their families and do not have time to attend classes. Furthermore, the lifestyle is also slightly different in rural and urban areas of Georgia; for instance, citizens, especially females, in rural areas tend to get married and have kids younger than citizens from urban areas (UNICEF, pg.246, 2018). Consequently, contrary to the study done by Troiano and Nardi (2021) the place of residence should be discussed along with education as a factor, since respondents who live in rural areas were less likely to have a university degree, whereas all participants who reside in urban areas obtained university degrees. It appears that more respondents residing in urban areas have university degrees contrary to only one respondent from rural areas having a degree. More vaccine-hesitant respondents are from urban areas, whereas more anti-vaxxers are from rural areas. Consequently, the lower level of education in rural areas could also be a factor in forming strong opposing attitudes towards the COVID-19 vaccines; however, to verify education and residence as factors influencing vaccine hesitancy in Georgia, further investigation and greater research samples are needed, which could not be feasible for the thesis due to the lack of resources, time, and limited length of the thesis.

The youngest anti-vaxxer individual interviewed for the thesis was 36, while the oldest was 75. The youngest vaccine-hesitant individual was 21, while the oldest was 63. Even though the lowest and the highest ages between the two groups are not extremely different, on average, anti-vaxxer individuals (36, 38, 49, 73, 75) were much older than vaccine-hesitant respondents (21, 26, 30, 35, 63). As discussed in the previous sections, younger individuals were more likely to note their age, and young and healthy organism (immune system) as a reason to avoid vaccination; younger respondents highlighted their age as a factor of hesitancy; they believe their immune system is young and will defeat the virus without vaccination. The COVID-19 vaccination seemed redundant for these individuals. In other words, younger individuals felt a lower risk of COVID-19 compared to older generations of respondents, but the older respondents did not cite the redundancy of the COVID-19 vaccines for their health as a cause for their attitudes; their strong positions could have

been influenced by untrustworthy information as the older generations are more vulnerable when it comes to disinformation. However, it is indefinite if the results of the interviews are coherent with the assumptions of Troiano and Nardi (2021) in terms of age since the article does not discuss the group of anti-vaxxers, but discusses only vaccine-hesitancy.

Studies cited in the previous sections of the thesis also highlighted gender as a factor; women were less likely to get vaccinated. However, the results of the interviews did not yield crucial differences between male and female respondents. 3 females and 2 males were anti-vaxxers, while 2 females and 3 males were vaccine-hesitant. The indefinite findings in terms of gender could be a result of excluding vaccinated individuals from the research sample and conducting a limited number of interviews.

3.2 Influence of Religion on Vaccine-hesitancy or Strong Opposition

Even though they did not force or suggest to their parish, numerous religious leaders made public statements that they did not trust the COVID-19 vaccines or desired to be vaccinated. As 80% of the Georgian population is Orthodox Christian and they hold strong trust in the religious leaders (BBC, 2013), one of the reasons behind the low vaccine rollout was religion. All 10 participants stated that they are Orthodox Christians; Three out of ten respondents are strongly religious and attend religious services, such as liturgy, systematically. These respondents expressed tremendous trust and confidence in GOC and their priests and stated that religion was one of the main reasons behind avoiding and opposing COVID-19 vaccination. Some followed the lead of their priests; these priests made a public statement opposing the COVID-19 vaccines, and even though they did not force their parish to avoid vaccination, their position and words had a great effect and influence on the members of the parish. Furthermore, as one of the vaccine-hesitant individuals affirmed during the interview, if religious leaders adopted a different approach and aligned their position with the government's, the vaccine rollout in Georgia would increase: "I believe that if religious leaders would have considered a different approach toward the issue of vaccination and lockdown, a lot more people would be vaccinated today. I think GOC should have made a statement supporting vaccination and or at least [statement] declining theories that the vaccines were

connected to the devil.” (Mariam, female, rural, religious). However, religious leaders were split between those who openly opposed vaccination and the restrictions adopted by the government, and those who stayed neutral and did not make statements.

The Georgian Patriarchate has never made an official statement regarding COVID-19 vaccination. When a religious anti-vaxxer respondent was asked about the latter, she noted that the official statement through national television was not necessary since “the Patriarch personally gave an order to the churches, and he stated that the churches would not close, and they did not close them on Easter.”; as Tsira further stated proudly, “Georgia is the only country where churches were not closed during the pandemic, not even on Easter.” (Tsira, female, urban, strongly religious). This could be explained by the power GOC holds and the majority of the population having greater trust in GOC than in government; as one respondent said: “Our Patriarch said no [to closing churches] and the government was either understanding or scared of civilians as for devotees the word of the Patriarch is supreme.” (Tsira, female, urban, strongly religious). Adopting anti-vaxxer beliefs or being hesitant to get vaccinated can be connected to religious beliefs based on some of the interviews. It was demonstrated during the interviews that some of the strongly religious respondents connect their position with their trust in God; according to them, if a person has a strong trust and is a faithful devotee, he/she will not need the COVID-19 vaccine to overcome and defeat the virus. As it was mentioned in the previous sections, the Easter liturgy was not canceled during the Pandemic. As Tsira explained, to avoid causing fear among the members of the parish, her priest disinfected the spoon after every individual during communion. She said “Our priest affirmed that the individuals receiving the Eucharist would get infected in no possible scenario. There is Christ’s sacred blood and flesh and even if the virus got in it, it [virus] would die, that is how powerful it is... After every person, when our priest had to disinfect the spoon, he apologized to God.” (Tsira, female, urban, strongly religious). Thus, strong religious beliefs do not necessarily indicate that the vaccination is against religion, rather it can be concluded after the interviews that strong religiousness can affect an individual’s belief that with the grace of God, he/she will overcome the sickness: “When you are an optimist and when you truly believe that God will not abandon you, you will be okay, you will survive the sickness.” (Tsira, female, urban, strongly religious). Furthermore, the conflict between the State and the GOC due to the Easter liturgy could

have negatively affected citizens' attitudes towards the State and the directions they gave in terms of COVID-19 vaccination.

An anti-vaxxer respondent who thinks that COVID-19 was created and released on purpose, connects it with religion and the biblical explanation of the rise of the antichrist. According to Tina, the bible forecasts several phases for the rise of the antichrist, and since she already knew that the virus and the vaccines were created on purpose and artificially, she and her family members believe that the Pandemic was one of the first phases of the rise of the antichrist. Interestingly, even though she connects her position towards the COVID-19 vaccination to religion, she did not ask her priest about his opinion. Rather, she listened to her boss who is strongly religious and, according to the respondent, has an immense knowledge of Orthodox Christianity and the bible.

3.3 Controversial Theories as the Basis of the Strong Opposition towards COVID-19 Vaccines

Three out of five anti-vaxxer respondents believe that COVID-19 and vaccines were created on purpose; however, the theories behind them are different. Gia (male, rural, school) strongly believes that COVID-19 was created to reduce the worldwide population. As he affirmed, he came across news around 2015 that the worldwide human population was rapidly increasing and that something had to be done to avoid overcrowding. After COVID-19 started and the death rates increased, Gia confirmed that he instantly remembered the news he heard years back and connected the dots. Furthermore, the respondent listened to the statements made by some of the foreign doctors on television suggesting that it was an artificially created virus decades before the outbreak. Reading these articles strengthened the respondent's belief and position to oppose the COVID-19 vaccination. According to Machingaidze and Wiysonge (2021), disinformation about COVID-19 and vaccination was prevalent and frequent on the Internet and social media platforms. Another anti-vaxxer respondent who thinks that COVID-19 was created and released on purpose, connects it with religion and the biblical explanation of the rise of the antichrist. According to her, the bible forecasts several phases for the rise of the antichrist, and since she already knew that the

virus and the vaccines were created on purpose and artificially, she and her family members believe that the Pandemic was one of the first phases of the rise of the antichrist. Interestingly, even though she connects her position towards the COVID-19 vaccination to religion, she did not ask her priest about his opinion. Rather, she listened to her boss who is strongly religious and, according to the respondent, has an immense knowledge of Orthodox Christianity and the bible.

Furthermore, another anti-vaxxer respondent noted that as soon as COVID-19 started, she came across reliable information that it was a bluff and was created artificially to procure vast monetary profits out of selling the vaccines and the medicine. Tsira further stated that the vaccines had negative effects on most individuals and that “it was discovered that most of the deceased people were actually vaccinated, and not once or twice but multiple times. So it is very suspicious, I see it as something was not right there.” (Tsira, female, urban, strongly religious). The belief that COVID-19 was created on purpose and that the officials were deceiving citizens was further strengthened when the Georgian Ministry of Health prohibited taking blood tests from deceased patients. The latter also created suspicions around the topic: “Why do you create a new rule and ban blood tests if you are sure that they died of Covid and that it is real?”(Tsira). Another anti-vaxxer respondent, Shorena, does not believe that COVID-19 exists and that the COVID-19 vaccine is an authentic medicine. She believes that COVID-19 was and is another seasonal flu and that the officials worldwide exaggerated the severity of the Pandemic. Thus, Shorena does not believe that vaccines are authentic. Furthermore, Zura believes that COVID-19 exists and is detrimental to health, but does not believe that the COVID-19 vaccines work. According to him, “I don’t think vaccines work, I think it just calms people down, it’s hope. There were many instances where vaccinated people were very sick and even died.” (Zura, male, rural, strongly religious). It appears that his beliefs are based on the high number of vaccinated people who were in severe conditions or who died. Indeed, high death rates of vaccinated people came up in all interviews with anti-vaxxer individuals; it downgrades the alleged effectiveness and safety of the COVID-19 vaccines for the anti-vaxxer individuals. All participants noted the controversial theory about “the West” inserting microchips via vaccine injections into patients, but none believe it.

Conclusion

The core goal of the thesis was to discover prevalent reasons for vaccine hesitancy in Georgia and to understand how the factors such as religion and sociodemographic details were connected to vaccine hesitancy. As stated in the beginning of the thesis, there is a gap in research on how religion affects vaccine hesitancy in Georgia. Considering the analysis of the interviews, the reasons for vaccine hesitancy in Georgia appear to be drawing on state religion and mistrust of the COVID-19 vaccines and the official information regarding the safety and reliability of vaccines; disagreement between the State and the GOC during the Easter 2020, several priests publicly opposing COVID-19 vaccination and regulations, the fast pace of development of the COVID-19 vaccines, possible unknown future side effects, and constantly changing information about the necessary doses to develop immunity against the virus are the reasons for the COVID-19 vaccine-hesitancy in Georgia. After analyzing interviews, religion seems to be an influential sociocultural factor impacting Georgian anti-vaxxers' beliefs toward the COVID-19 vaccination; as stated by the Georgian authors Aladashvili (2022) and Metreveli (2022) in their academic papers, numerous Georgian priests opposed the COVID-19 vaccination publicly and citizens followed their lead as religious representatives have a strong influence on their parish. The fast development of vaccines and possible future side effects have been repeatedly highlighted in the literature as an underlying factor for vaccine hesitancy (Machingaidze & Wiysonge, 2021) and all vaccine-hesitant respondents cited these as a base for their suspicions and doubts.

The findings suggest that education and the place of residence could be the sociodemographic factors influencing vaccine hesitancy; respondents from rural areas had lower education than the respondents from urban areas, which can be explained by the lack of resources and quality education in the rural areas of Georgia. Furthermore, the lack of education could influence respondents' capability to find, access, and interpret verified and reliable information about the COVID-19 vaccination due to the lack of academic skills and possible language barrier. The thesis demonstrates that religion, education, and residence could affect the extent of vaccine-opposing attitudes and mistrust, but it also brings into question the influence of "the West" and corresponding controversial theories (Wilson & Wiysonge, p.2, 2020) which could affect vaccine hesitancy in Georgia. Controversial theories about 'the West' were not cited or believed as much

as expected during the interviews. To explore the implications of these results, future research based on quantitative research design and focusing on a significantly robust research sample could further test this hypothesis. Moreover, further research could focus on the origins of the core sources participants followed for the information about the COVID-19 vaccination. The prevailing reasons behind the low vaccination rates in Georgia have never been researched. The thesis identified mistrust of the COVID-19 vaccines, religion, and controversial theories as prevalent underlying factors in opposing the COVID-19 vaccination in Georgia.

List of References

- Aladashvili, G., Nebieridze, A., Pkhakadze, G., & Nadareishvili, I. (2022). Recognizing vaccine wastage in Georgia. *Public Health Challenges*. <https://doi.org/10.1002/puh2.46>
- Archard, D. (2021). Let's Talk About Covid-19 Ethics. *Democracy in a Pandemic: Participation in Response to Crisis*, pp. 57-62. doi:10.2307/j.ctv1v3gqz6.12
- Aspers, P., & Corte, U. (2019). What is Qualitative in Qualitative Research. *Qualitative Sociology*, 42, pp. 139-160. <https://doi.org/10.1007/s11133-019-9413-7>
- BBC. (2013, July 2). Georgia's Mighty Orthodox Church. Retrieved on March 15 from <https://www.bbc.com/news/world-europe-23103853>
- Braun, V., Clarke, V., & Terry, G. (2014). Thematic Analysis. In P. Rohleder & A. Lyons (Eds.), *Qualitative Research in Clinical and Health Psychology*. Palgrave Macmillan. doi: [10.1007/978-1-137-29105-9_7](https://doi.org/10.1007/978-1-137-29105-9_7)
- Britannica, T. Editors of Encyclopaedia (2015, January 22). *Georgian Orthodox church*. Encyclopedia Britannica. Retrieved on April 1 from <https://www.britannica.com/topic/Georgian-Orthodox-church>
- Borowy, I. (2021). Perspectives on COVID-19 Vaccine: The Incredible Success Versus the Incredible Failure. *Historical Social Research/Historische Sozialforschung*, 33, pp. 147-172. Retrieved from <https://shibbolethsp.jstor.org/start?entityID=https%3A%2F%2Fcas.cuni.cz%2Fidp%2Fshibboleth&dest=https://www.jstor.org/stable/27087279&site=jstor>
- Caucasus Research Resource Center. (2020). *Understanding Public Opinion on the Coronavirus*. CRRC Georgia. [Final report https://caucasusbarometer.org/downloads/cv_19/Understanding%20Public%20Opinion%20on%20the%20Coronavirus%20in%20Georgia_ENG_2020.07.22.pdf](https://caucasusbarometer.org/downloads/cv_19/Understanding%20Public%20Opinion%20on%20the%20Coronavirus%20in%20Georgia_ENG_2020.07.22.pdf)
- Center for Insights in Survey Research. (2021). *Public Opinion Survey: Residents of Georgia*. International Republican Institute. https://www.iri.org/wp-content/uploads/legacy/iri.org/iri_poll_presentation-georgia_february_2021_1.pdf
- Gilbreath, D., & CRRC. (2020). *Analysis | Georgia has a vaccine misinformation problem*. OC Media. Retrieved on April 1 from <https://oc-media.org/features/analysis-georgia-has-a-vaccine-misinformation-problem/>

- Glassman, A., Kenny, C., & Yang, G. (2022). *COVID-19 Vaccine Development and Rollout in Historical Perspective*. Center for Global Development. Retrieved from <http://www.jstor.org/stable/resrep39990>
- doi:10.1371/currents.outbreaks.6844c80ff9f5b273f34c91f71b7fc289
- Legard, R., Keegan, J., & Ward, K. (2003). In-depth Interviews. In J. Ritchie & J. Lewis (Eds.), *Qualitative Research Practice: A Guide for Social Science Students and Researchers* (pp.138-169). SAGE Publications.
- Lomsadze, G. (2022). Georgia’s doctors on the vanguard of vaccine hesitancy. *Eurasianet*. Retrieved from <https://eurasianet.org/georgias-doctors-on-the-vanguard-of-vaccine-hesitancy> [Online Resource]
- MacDonald, N. E. (2015). Vaccine hesitancy: Definition, scope and determinants. *Vaccine*, 33(34), pp. 4161-4164. <https://doi.org/10.1016/j.vaccine.2015.04.036>
- Machingaidze, S., & Wiysonge, C. S. (2021). Understanding COVID-19 vaccine hesitancy. *Nature Medicine*, 27, pp.1338-1339. <https://doi.org/10.1038/s41591-021-01459-7>
- Mackinnon, A. (2020). Russia knows just who to blame for the coronavirus: America. *Foreign Policy*. Retrieved from <https://foreignpolicy.com/2020/02/14/russia-blame-america-coronavirus-conspiracy-theories-disinformation/>
- Metreveli, T. (Ed.). (2022). Impacts of the pandemic on the churches. *Euxeinos*, 12(33), pp.11-18. doi:10.55337/MKMI1166
- Mohd Arifin, S. R. (2018). Ethical Considerations in Qualitative Study. *International Journal of Care Scholars*, 1(2), pp. 30-33. doi: <https://doi.org/10.31436/ijcs.v1i2.82>
- UNICEF. (2018). *Multiple Indicator Cluster Survey 2018: Generating evidence to deliver for children*. Retrieved on April 25 from https://www.unicef.org/georgia/media/3501/file/Georgia_MICS_2018_en.pdf
- Murphy, J., Vallieres, F., Bentall, R. P., Shevlin, M., McBride, O., Hartmann, T. K., McKay, R., Bennett, K., Mason, L., Gibson-Miller, J., Levita, L., Martinez, A. P., Stocks, T. V. A., Karatzias, T., & Hyland, P. (2021). Psychological characteristics associated with COVID-19 vaccine hesitancy and resistance in Ireland and the United Kingdom. *Nature Communication*, 12(29). <https://doi.org/10.1038/s41467-020-20226-9>

- Or, Z., Gandré, C., Durand Zaleski, I., & Steffen, M. (2022). France's response to the Covid-19 pandemic: between a rock and a hard place. *Health economics, policy, and law*, 17(1), pp. 14–26. <https://doi.org/10.1017/S1744133121000165>
- Our World in Data. (2022). *Coronavirus (COVID-19) Vaccinations*. Updated on October 13, 2022. Retrieved on April 1, 2023 from https://ourworldindata.org/covid-vaccinations?country=OWID_WRL
- Ritchie, J., & Lewis, J. (Eds.). (2003). *Qualitative Research Practice: A Guide for Social Science Students and Researchers*. SAGE Publications. https://mthoyibi.files.wordpress.com/2011/10/qualitative-research-practice_a-guide-for-social-science-students-and-researchers_jane-ritchie-and-jane-lewis-eds_20031.pdf
- Ritchie, J., Lewis, J., & Elam, G. (2003). Designing and Selecting Samples. In J. Ritchie & J. Lewis (Eds.), *Qualitative Research Practice: A Guide for Social Science Students and Researchers* (pp.77-108). SAGE Publications.
- Sarah Tyler. (2022). *In Georgia, health workers prepare for busy winter season amid COVID-19 and influenza surge concerns*. World Health Organization. Retrieved on April 1 from <https://www.who.int/europe/news/item/21-11-2022-in-georgia--health-workers-prepare-for-busy-winter-season-amid-covid-19-and-influenza-surge-concerns>
- Sichinava, D., & The Caucasus Datablog. (2021). *Datablog | Georgia among worst in the world for vaccine hesitancy*. OC Media. Retrieved on April 1 from <https://oc-media.org/features/datablog-georgia-among-worst-in-the-world-for-vaccine-hesitancy/>
- The Moscow Times. (2020). *Russian Communist Leader Links Coronavirus Vaccine to Microchip Conspiracy Theory*. Retrieved on May 29 from <https://www.themoscowtimes.com/2020/05/27/russian-communist-leader-links-coronavirus-vaccine-to-microchip-conspiracy-theory-a70391>
- Troiano, G., & Nardi, A. (2021). Vaccine hesitancy in the era of COVID-19. *Public Health*, 194, pp.245-251. <https://doi.org/10.1016/j.puhe.2021.02.025>
- U.S. Department of State. (n.d.). *2018 Report on International Religious Freedom: Georgia*. Bureau of Democracy, Human Rights, and Labor. Retrieved on April 1 from <https://www.state.gov/reports/2018-report-on-international-religious-freedom/georgia/>
- Wilson, S. L., & Wiysonge, C. (2020). Social media and vaccine hesitancy. *BMJ Global Health*. doi:10.1136/bmjgh-2020-004206

- Worldometer. (n.d.). *Georgia Population*. Live statistics. Retrieved on April 1 from <https://www.worldometers.info/world-population/georgia-population/>
- World Health Organization. (n.d.). *The true death toll of COVID-19: estimating global excess mortality*. Retrieved on April 25 from <https://www.who.int/data/stories/the-true-death-toll-of-covid-19-estimating-global-excess-mortality>

List of Appendices

Appendix 1: Interview Themes and Questions

1. Perception of risks and benefits of the COVID-19 vaccination

- What has been your experience of COVID-19?
- Has anyone close to you or you personally suffered from the virus? What was your experience? What were your family members'/friends' experiences?

2. Sources of the COVID-19 vaccine information;

- Do you remember when you first heard about COVID-19 vaccines and what were your thoughts?
- Where do you get information about vaccines? How does it come that you use these resources? Do you trust these sources?

3. The COVID-19 vaccine-related beliefs and attitudes (conspiracy theories);

- What are your thoughts about vaccination? How do you feel about getting vaccinated?
- Have you or anyone you know experienced any negative side effects from the COVID-19 vaccines?
- How do you think vaccines work?
- What are some reasons why people might choose not to get vaccinated?
- Have your views on vaccination changed over time?
- Do you think the “West” influenced the COVID-19 vaccination process? Why and how?

4. Influence of religious beliefs on attitudes adopted towards the COVID-19 vaccination;

- Can you recall what information was released by the GOC and the Patriarch regarding the COVID-19 vaccination?
- Have you ever come across contradictory information about the COVID-19 vaccines from the GOC and the media? Or the GOC and the government?

- What was the position of your priest/bishop about vaccines and vaccination? Did you take into account your priest's suggestions about vaccination?

5. Trust in the Georgian Orthodox Church, the government, and the public health institutions;

- Do you trust the Georgian government and public health institutions to provide accurate vaccine information?
- Do you trust Georgian medical personnel?
- How do you feel about the government or public health officials? What do you think about the vaccine-related information they provide?

6. Background of respondents (age, gender, residence, education, religious beliefs, the COVID-19 vaccination);

- Age
- Gender
- Level of education
- Profession
- Residence
- Religion
- Number of doses (vaccination)

Appendix 2: Bachelor's Thesis Proposal

1. Low COVID-19 vaccine uptake in Georgia

The COVID-19 pandemic has been an ongoing crisis since December of 2019 originating from Wuhan, China. It is an understatement to say that COVID-19 took the world by a surprise. Most countries quickly passed drastic measures to fight the unknown virus; most prevalent measures included lockdown of airways, restriction of movement, and stoppage of businesses such as

restaurants, clubs, gyms, etc (Borowy, 2021). Concisely, everything that was not necessary and essential for 'survival' was closed for an indefinite period. Some countries, such as France even restricted movement in the streets without temporary passes; these passes were granted for several reasons, for example: going to the supermarket or pharmacy, walking a pet, emergency situations, etc (Or et al., 2022). Especially during the first year of the outbreak, the pandemic took a great toll on human life. Everything had to fit in the rules mentioned above, so jobs, schools, universities, and other institutions were forced to go online.

However, as the time passed and researchers throughout the world worked countless hours and gained more information about COVID-19 effects, variants, symptoms, etc, they started working on developing treatments and coping mechanisms - vaccines. The world's number one priority right from the outbreak of the virus was to create an effective treatment - a vaccine to fight the virus successfully. Even though the first successful vaccine was developed in December of 2020 people started discussing the topic much earlier; people developed strong opinions and were grouped together in terms of looking forward to or opposing the idea of being vaccinated against Covid. The reasons behind this are various and the thesis will discuss the most prevalent ones in the next sections. Nonetheless, for the people who believe in modern medicine and vaccines, developing vaccines for Covid was the first spark of hope that the pandemic would have been defeated soon. After researchers announced that vaccines were effective and ready to use, countries started to order huge amounts of doses hoping that the majority of people would get vaccinated. According to the official website of Our World in Data, some countries such as Israel managed to vaccinate 66% of their population with all required doses (and additionally, 6.1% with at least 1 dose) and some, such as Georgia, could not manage it and only 32% of Georgians are fully vaccinated (additional 9% with at least 1 dose) (Our World in Data, n.d.).

2. Religiosity & education

COVID-19 is a hot and novel issue in the world, thus the literature on the different aspects of the pandemic is abundant. Nonetheless, the academic literature and research papers on COVID-19 vaccination obstacles and issues in Georgia are scarce, to say the least. In Georgia, only 32% of

the population is vaccinated with sufficient doses and 9% have incomplete dosage (Our World in Data, n.d.). The main goal of the thesis is to find out, understand, and analyze a) the reasons behind the low rates (32%) of vaccination and b) attitudes and beliefs towards the practice in Georgia. Furthermore, the academic paper will cover and discuss various attitudes and opinions Georgian citizens have. There are many opinions on why the vaccination is ineffective, unnecessary, and fraud. Numerous controversial theories exist about vaccines and these theories have a wide range of followers (ref). Especially in the rural areas of Georgia, many people do not have a high educational level, do not have access to the Internet and/or information, and do not have time or wish to watch television and follow the national and international news. People started opposing vaccination because of the lack of information and widespread controversial theories, such as Western countries putting tracking devices via vaccine in the organism of patients to obtain information (The Moscow Times, 2020).

Another reason is that Georgia is an extremely religious country, with 80% of the population being Orthodox Christian believers and highly trusting the Georgian Orthodox Church as an institution (BBC, 2013), and people who do not get vaccinated often blame it on the Orthodox Church, even though religion and religious leader - Patriarch Ilia II has never stated that the vaccines are sacrilegious and that vaccination goes against the Orthodox Church. In the 21st century, religion has become vague for some; since the internet has become so prevalent, it has become easier to spread truthful as well as wrong information rapidly.

Some extremists or devotees come up with some rules and state that the religion calls upon it, then some internet users believe the statement without double-checking (Zainul, 2020). There have been countless different versions of why vaccination is against religion and all based on personal opinions. Some priests go against the fundamentals of the Orthodox Church and use their positions to speak out their opinions 'in the name of religion'. Numerous Georgian anti-vaxxer priests preach against vaccination and teach their parish not to get a vaccine.

for instance, many priests have come out stating that the vaccine is a mark of the antichrist (Lomsadze, 2022). Nonetheless, these ideas and opinions are quickly spread and followed by the crowd.

3. Theories explaining low vaccine hesitancy

COVID-19 pandemic has caused crisis and panic throughout the world, yet the vaccine development for Covid has been the fastest in history (Glassman et al, 2022). Some of the underlying factors for vaccine hesitancy are the social media disinformation, the lack of interest for various reasons, and the fear of vaccines not being safe and reliable (Glassman et al, 2022). According to Dave Archard's article following the first successful vaccination in December 2020, vaccine hesitancy existed long before COVID-19 vaccines were developed; the hesitancy was based on several different aspects such as futile controversial theories, such as the fast pace and procedures of developing vaccines (insufficient time for the testing of vaccines on humans), and fears of unknown and unexpected side effects (Archard, 2020).

The hesitancy of vaccination is frequent in a developing country - Georgia. According to Our World in Data only 41% of the population is vaccinated fully or at least with one dose in total in Georgia (Our World in Data, 2022). Even though empirical data on vaccination is lacking in terms of Georgia, there are many non-governmental organizations or media outlets that have published articles backed up with statistical data about vaccine hesitancy in Georgia; a Georgian author Giorgi Lomsadze (2022) discusses one of the anti-vaxxer groups (and plausibly most surprising) - health care workers. As Lomsadze underlines, the data published by the National Center for Disease Control (NCDC) concludes that almost a third of working medical personnel are not vaccinated. Certainly, the latter complicates the effectiveness of positive campaigns to boost and support vaccination in the country. Although, according to a study conducted prior to covid, communication can be one of the effective tools to support the vaccination and avoid the hesitancy (MacDonald, 2015) Lomsadze also highlights that medical personnel and generally, people from rural areas are more hesitant and strongly opinionated (2022); citizens who had been infected and had recovered are advocating for their rights not to get vaccinated, since they already have antibodies for Covid.

4. Research questions

As mentioned above, the academic paper will cover two important parts: a) Are the reasons for vaccine hesitancy drawing on Georgian or Global sources? and b) How is vaccine hesitancy related to social (social status & profession) and cultural (education & religion) factors? The paper aims to find out the main underlying factors and beliefs of Georgians who are hesitant to get vaccinated, what controversial theories exist - which are the most prevalent and why, and the attitudes and opinions of different categories of citizens, such as vaccinated people, people who are planning on getting the vaccine, anti-vaxxers...

5. Methods of data production & Methods of data analysis

The research paper will utilize empirical data from other similar developing countries undergoing more or less the same obstacles in terms of vaccination. Moreover, official Georgian websites and resources, such as the website of the Ministry of Health will be used to support the research paper with statistical data. Most importantly, the author will conduct oral interviews with Georgian citizens from urban and rural areas of Georgia to obtain more direct, rich, and raw data on this specific and hardly researched topic. The interviews will be semi-structured and will include biographical as well as specific, Covid-related questions to understand respondents' background, religious affiliations, other, and probable underlying factors. The research sample will include Georgians who are vaccinated with insufficient doses (i.e. 1 or 2 without a booster), who were/are hesitant to get vaccinated, and anti-vaxxers.

The paper will utilize thematic analysis extensively. Obtained interviews will be coded using the free coding software 'taguette' (taguette.com). Coded transcripts will be analyzed and interpreted in the analysis part and the results will be discussed in the remainder of the paper. Moreover, the arguments and literature review will be supported by respondents' answers and thoughts.

7. Ethical consideration

The author of this paper acknowledges that even though the treatment and the cure for COVID-19 already exists and the percentage of fully recovered infected patients increased compared to the beginning of the pandemic, some people are still suffering mentally and physically and/or have strong emotional responses to the topic due to the post-traumatic experiences or Covid related issues. The author will inform respondents about their rights and will ask for informed consent before starting the interview and will keep the respondents anonymous; he will take into consideration the sensitivity of the topic and will communicate with the respondents with respect and compassion nonetheless of their opinions and attitudes towards vaccination. The author will not be biased toward any positions and will not take respondents' words out of context; he will honor respondents' choices if they decide not to participate in the research. Additionally, the author understands the importance of honoring colleagues' work and will use academic resources coherently and will not use others' work and words out of context.

8. References

- Archard, D. (2021). Let's Talk About Covid-19 Ethics. *Democracy in a Pandemic: Participation in Response to Crisis*, pp. 57-62. doi:10.2307/j.ctv1v3gqz6.12
- Appel, C., Beltekian, D., Giattino, C., Hasell, J., Macdonald, B., Mathieu, E., Ortiz-Ospina, E., Ritchie, H., Rodés-Guirao, L., & Roser, M. (2020) - "Coronavirus Pandemic (COVID-19)". Published online at OurWorldInData.org. Retrieved from <https://ourworldindata.org/coronavirus> [Online Resource]
- BBC. (July 2, 2013). Georgia's Mighty Orthodox Church. Retrieved on March 15 from <https://www.bbc.com/news/world-europe-23103853>
- Borowy, I. (2021). Perspectives on COVID-19 Vaccine: The Incredible Success Versus the Incredible Failure. *Historical Social Research/Historische Sozialforschung*, 33, pp. 147-172. Retrieved from <https://shibbolethsp.jstor.org/start?entityID=https%3A%2F%2Fcas.cuni.cz%2Fidp%2Fshibboleth&dest=https://www.jstor.org/stable/27087279&site=jstor>
- Burki, T. (2020). The online anti-vaccine movement in the age of COVID-19. *The Lancet*

Digital Health, 2(10), pp. 504-505. doi:10.1016/S2589-7500(20)30227-2

- Glassman, A., Kenny, C., & Yang, G. (2022). COVID-19 Vaccine Development and Rollout in Historical Perspective. Center for Global Development. Retrieved from

<http://www.jstor.org/stable/resrep39990>

- Larson, H. J., Peretti-Watel, P., Schulz, W., Verger, P., & Ward, J. K. (2015). Vaccine hesitancy: clarifying a theoretical framework for an ambiguous notion. National Library of Medicine. doi:10.1371/currents.outbreaks.6844c80ff9f5b273f34c91f71b7fc289

- Lomsadze, G. (2022). Georgia's doctors on the vanguard of vaccine hesitancy. Eurasianet. Retrieved from <https://eurasianet.org/georgias-doctors-on-the-vanguard-of-vaccine-hesitancy> [Online Resource]

- MacDonald, N. E. (2015). Vaccine hesitancy: Definition, scope and determinants. *Vaccine*, 33(34), pp. 4161-4164. <https://doi.org/10.1016/j.vaccine.2015.04.036>

- Or, Z., Gandré, C., Durand Zaleski, I., & Steffen, M. (2022). France's response to the Covid-19 pandemic: between a rock and a hard place. *Health economics, policy, and law*, 17(1), pp. 14–26. <https://doi.org/10.1017/S1744133121000165>

- Our World in Data. (n.d.). Coronavirus (COVID-19) Vaccinations. Retrieved on May 29 from https://ourworldindata.org/covid-vaccinations?country=OWID_WRL

- The Moscow Times. (2020). Russian Communist Leader Links Coronavirus Vaccine to Microchip Conspiracy Theory. Retrieved on May 29 from <https://www.themoscowtimes.com/2020/05/27/russian-communist-leader-links-coronavirus-vaccine-to-microchip-conspiracy-theory-a70391>

- Zainul, H. (2020). Countering COVID-19 anti-vaccination propaganda. Institute of Strategic and International Studies. Retrieved from <http://www.jstor.org/stable/resrep29702>