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Georgios Tsertekidis

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RESEARCH ARTICLE

"Vaccine? No, thank you!" Social Media, Right-Wing Political Orientation and COVID-19 Vaccination Hesitancy: The Case of Pieria, Greece

Georgios Tsertekidis
PhD Candidate, Department of Social Work, Democritus University of Thrace, Greece.

Abstract

This case study examines the situation of the regional unit Pieria (Greece) as a compelling instance of a regional unit with low vaccination coverage and a right-wing political orientation, depth, and historicity. Apart from the utilization of relevant literature, qualitative research was also conducted for the needs of this case study. A sample of 16 Greek citizens from Pieria, all of whom are voters of one of the three minor Greek right-wing parliamentary parties and have been vaccine hesitant and vocal on social media, is examined as an attempt to enhance our understanding on the role of social media and right-wing attitude regarding vaccine hesitancy within the context of this specific case.

Keywords: Anti-vaccine, COVID-19, Elections, Greece, Katerini, Pieria, Public Health, Right-wing politics, social media, vaccine hesitancy

Introduction

The pandemic caused by COVID-19 has changed the world in many ways. The economic, financial, social, cultural and political turbulence caused by this pandemic has been monitored, observed and researched by many scientists, researchers and scholars all around the globe. The COVID-19 pandemic has given prominence to the substantial role of vaccination in preventing diseases that threaten human life and improving global public health policies. For that reason, it is important for the global scientific community to investigate, explore, understand and address the concerns of the vaccine-hesitant individuals' health (Dubé & MacDonald, 2022).

In this study, the case of Pieria is examined as an interesting case in terms of vaccine hesitancy and refusal, right-wing political orientation, and the role of social media. The study utilizes relevant existing international literature about vaccine hesitancy in general, COVID-19 vaccine hesitancy in Greece, social media and vaccine hesitancy, and possible links between political orientation and vaccine hesitancy. Also, the case of the regional unit of Pieria is examined in terms of social, cultural and political issues that make up the unique nature of the case. Qualitative research is implemented

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through interviews with a sample of 16 voters of the three minor right-wing parliamentary parties (Spartiates, Elliniki Lisi-Kyriakos Velopoulos and Dimokratiko Patriotiko Kinima "NIKI") who have been vocal in social media about their vaccine hesitancy and/or refusal.

About Vaccine Hesitancy in General

A basal definition

The Strategic Advisory Group of Experts on Immunization (SAGE), which advises the World Health Organization on global immunization and health policies in general[1], has defined vaccine hesitancy as "*[…] delay in acceptance or refusal of vaccines despite availability of vaccination services. Vaccine hesitancy is complex and context specific, varying across time, place and vaccines. It is influenced by factors such as complacency, convenience and confidence*" (SAGE, 2014, p.4).

Concerning the phenomenon itself

Vaccine hesitancy is a complex and multilevel phenomenon. Although it is not a new phenomenon, during the last decades it has been gaining ever-growing attention by researchers and academics globally, not only because of its potential to undermine public health policies[2], but also due to its various socio-political extensions of notable gravity. It can be observed in various populations and communities all around the globe (SAGE, 2014). According to the World Health Organization, people's propensity to receive a vaccine is, initially, based on the 3 Cs Model (SAGE, 2014). That model includes Confidence, Complacency and Convenience. Confidence is mostly realized as the trust in the safety and effectiveness of the vaccine, the vaccine delivery system and the policymakers who call for the population to get that vaccine (Attwell et al., 2022). Complacency refers to people's understanding concerning the risk of the vaccine-preventable disease to be lower than it actually is. Finally, Convenience is related to the easiness that people have to access vaccination in terms of geographical proximity, transportation capability, and affordability in general (Attwell et al., 2022). Another well-established model concerning vaccine uptake is that of 5 As. Those are: Access, Affordability, Awareness, Acceptance and Activation (Thomson et al., 2016).

Taking all of the above into consideration, there has to be a series of factors that nurture vaccine hesitancy. Those underlying factors that contribute to vaccine hesitancy can be identified as being individual, social, cultural, and systemic in nature.

[1] https://www.who.int/groups/strategic-advisory-group-of-experts-on-immunization/working-groups (Accessed 6 August 2023).
[2] Especially, it poses a significant challenge to the achievement of herd immunity and the control of vaccine-preventable diseases (SAGE, 2014).

Individual factors

Some major factors can be individual perceptions of vaccine safety and efficacy, mistrust of healthcare institutions and providers, along with possible beliefs in alternative forms of medicine, pseudoscience or natural immunity (Larson et al., 2014). In addition, when some diseases are arbitrarily perceived as less severe and dangerous, individuals may become complacent about vaccination under the arbitrary assumption that they are not at risk of infection and sickness (Betsch et al., 2015). In a parallel manner, the fear of potential adverse effects is a major factor that fuels the phenomenon. Misinformation is also of great importance as anti-vaccine groups that expand their influence and impact through social media, frequently propagate unscientific claims without providing scientific evidence, and trigger or reinforce possible already existing hesitancy (Kata, 2010).

Social factors

According to relevant scholarship, vaccine hesitancy can also be linked to a lack of knowledge concerning health issues (Yaqub et al., 2014). At this level, the various social and educational inequalities, not only internationally but also within the same societies, play an evident role. Various barriers in access to vaccination, including geographical distance to vaccination centers, inconvenient clinic hours, transportation or financial obstacles, can also exacerbate vaccine hesitancy among economically marginalized populations (Benjamin et al., 2018).

Cultural factors

Cultural factors also contribute to vaccine hesitancy. Cultural beliefs, religious beliefs, para-religious ideologies and relevant social norms can boost prejudices against vaccination and reinforce vaccine hesitancy. For instance, some religious or para-religious groups feature vaccine hesitancy as a religious doctrine and others have their reservations about vaccine ingredients that could possibly be in conflict with their religion-based dietary restrictions (Omer et al., 2009).

COVID-19 Vaccine Hesitancy and Refusal in Greece

A very interesting characteristic of all the research projects that are cited in this section are the levels of the response rate. In every one of the surveys that are cited in this section the response rate expands from 9% to roughly 14.5%, providing the surveys have made the response rates available. These some notably low response rates according to literature (Holtom et al., 2022), a fact that can be open to interpretation and evaluation.

Going through relevant literature on PubMed, Google Scholar and ResearchGate, some of the most influential research projects that were reviewed during the study process for this paper, are displayed

in three categories according to their target populations. Healthcare workers', school teachers' and general population' attitudes toward COVID-19 vaccines were mostly studied using relevant scholarship concerning Greece. Some of the leading research projects for each of these categories were chosen to be reviewed for the needs of this article. Scientists have placed particular interest and emphasis on healthcare workers and school teachers, which can be explained by the high transmutability of COVID-19, not only in hospitals but in schools as well (Moisoglou et al., 2023).

Vaccine hesitancy among healthcare workers

An online cross-sectional survey that took place at the end of 2020 involved 340 healthcare workers (174 males and 166 females). Those who did not accept to get vaccinated against COVID-19 were 18% of the male participants and the 25% of the female participants. Hence, it appears that females are more hesitant against the COVID-19 vaccine in comparison to males. The main reasons for refusing vaccination were fear of side effects and a belief that not enough time was spent developing the vaccines (Papagiannis et al., 2021).

In another online cross-sectional survey during 2021, which had a sample comprising of (n=885) healthcare workers, only 8.5% (n=75) said "No" to being vaccinated with the COVID-19 vaccine. From those 75 participants, most of them (n=37) expressed their concerns about safety and effectiveness issues, others referred to the side effects of the vaccines (n=13), while others did not want to get vaccinated because they had a previous COVID-19 diagnosis (n=9), and some females (n=7) refused vaccination because of their efforts to get pregnant. The participants showed more trust in family doctors and scientists rather than official authorities (Galanis et al., 2022a).

Vaccine hesitancy among school teachers

An online cross-sectional survey conducted in 2020 about people's attitude toward influenza and COVID-19 vaccines had a sample of 399 elementary and kindergarten school teachers in the area of Western Greece. Going through the results of the aforesaid survey, it is clear that women were less likely than men to get the COVID-19 vaccine when it was made available. Also, teachers who had no children were less likely to get vaccinated in comparison to those who did (Gentzi et al., 2021).

At the end of 2021, another online cross-sectional survey was conducted with a convenience sample of 513 school teachers in Greece. According to that survey, 14.2% (n=73) of the teachers were not vaccinated at the time the research took place. The concerns about safety, effectiveness and the side effects of the vaccines were once again the most important reasons for the teachers' refusal to have the COVID-19 vaccine. Also, their personal belief that they would not be infected at all, or that vaccination would be useless for them due to their previous diagnosis with the virus, were also two of the most

statistically significant reasons for the decline in vaccination numbers. Moreover, age was a variable; younger age was related to a lesser vaccine uptake contrary to older age and the cohabitation with elder people, two variables that were related to greater probability of vaccine acceptance (Moisoglou et al., 2023).

Vaccine hesitancy among general population

Cross-sectional research conducted online in Greece back in 2020 regarding vaccine acceptance prior to COVID-19 vaccines being available, showed that gender and educational levels seemed to play a role in vaccine hesitancy. A sample of 538 participants (419 females and 119 males) from the general population showed that women and less educated people were more likely to be hesitant against the new vaccine (Holeva et al., 2021).

Another major research project included four repeated cross-sectional phone surveys with approximately 1,200 participants in each survey. It was a nationally representative sample of Greek adults. The research project, using multi-variable analysis, made it apparent that unwillingness and/or uncertainty towards the COVID-19 vaccine was associated with young age, the female gender, a lower educational level, and living with a child ≤12 years old. Among those who were vaccine hesitant, men reported concerns about the effectiveness of the vaccine more frequently, while safety concerns were reported more often by women (Sypsa et al., 2022).

In another cross-sectional online research in 2021 with a sample comprising of participants from the general population (n=1959), 12.2% of the sample did not get vaccinated against COVID-19, while 43.8% (n=102) had doubts about the safety and effectiveness of the vaccines, 22.7% (n=53) were afraid of possible side effects, 10.7% (n=25) had already been diagnosed with COVID-19 and thought that the vaccine would not be beneficial to them, 8.2% (n=19) were trying to get pregnant and thought the vaccine was not a safe choice, and 4.7% (n=11) were afraid because they were already pregnant (Galanis et al., 2022b).

Social Media and Vaccine Hesitancy

As early as 2010, anti-vaccination rhetoric has become part of a mainstream public dialogue about childhood vaccination (Smith & Graham, 2017) and vaccination in general. In their effort to map the anti-vaccination movement on Facebook, Smith and Graham (2017) came to the leading conclusion that social media has become a convenient cyberspace to host, facilitate, popularize, and boost anti-vaccination discourses. They also made some other notable realizations. The anti-vaccination movement's presence and interaction on Facebook "suggests a popular and active community" (Smith

& Graham, 2017, p. 14). Concerning the themes of anti-vaccination discourses and narratives, moral outrage and indignation, as well as feelings of constructional oppression by governments and the media often suggest a conspiracy-style mentality. Also, anti-vaccination pages on Facebook evince a movement dominated mostly by females, something that could be explained by the culturally gendered role of parenting; for instance, mothers have historically been the ones to make decisions regarding childhood vaccination (Durbach, 2005). Lastly, social media have been recognized as playing a vital role in the diffusion and propagation of anti-vaccination ideas while also making the anti-vaccination movement more resilient globally (Smith & Graham, 2017).

Through their study, Thelwall at al. (2021) made an effort to shed light on the content shared by vaccine hesitant individuals on Twitter. For the needs of their research project, they conducted content analysis to 446 random vaccine hesitant tweets which were written in English and posted from March through December in 2020. The main themes that occurred through their analysis were conspiracies related to vaccine development speed and vaccine safety. According to their research, 79% of those expressing vaccine hesitant views within their tweets also expressed right-wing opinions, fear of "deep state", and conspiracy theories (Thelwall et al., 2021). Vaccination is identified as a partly political issue. The main association between vaccine hesitancy and political ideologies is exhibited by the libertarians (ibid) and the so-called "alternative right", both of which raise concerns and fears about vaccination being used as a means to impose state control.

A 2022 cross-platform analysis of Polish social media content (Wawrzuta et al., 2022) gathered a sum of 53,671 comments on COVID-19 vaccination from four major social media platforms (Facebook, Twitter, Instagram and TikTok) so that the users' attitudes could be made clear in comparison. Those comments were published between August 2021 and February 2022. According to the frequency of occurrence, 14 categories of anti-vaccine arguments were identified in those social media platforms. The frequency of these categories, however, varied across platforms. Vaccine hesitant users on Facebook and Tweeter had a common attitude which included expressions of distrust for the government and imputations of vaccine safety and effectiveness. At the same time, many Instagram users who encouraged vaccination faced criticism that vaccination is a matter of privacy and issues concerning it should not be made public. On the other hand, TikTok users that expressed vaccine hesitant views, mostly focused on the matter of personal freedom and freedom of choice (ibid).

Political Orientation and Vaccine Hesitancy

Interest for research on vaccine hesitancy has skyrocketed during the last three years due to the COVID-19 pandemic, while the noteworthy levels of vaccine hesitancy that have been observed have

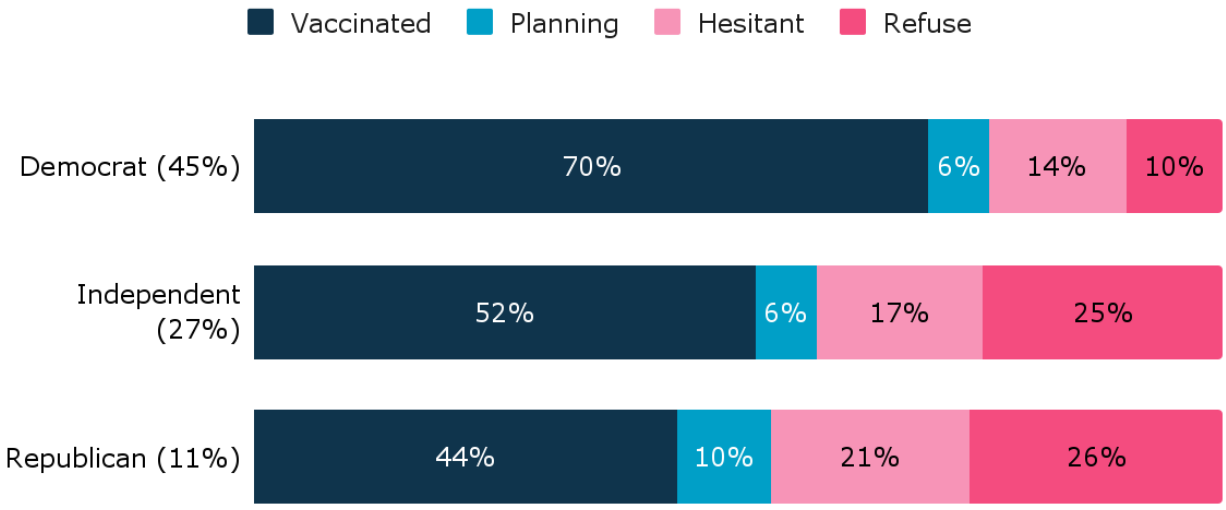
been monitored by, probably, every country of the world. According to the Web of Science, the proportion of papers with 'vaccine' or 'vaccination' in the title that also mention 'hesitancy' rose from 3.3% in 2019 to 8.3% in 2021 (Attwell et al., 2022). Even though it is a globally observed phenomenon, it is clear that it varies from country to country and from one socio-demographic group to another (ibid).

On the other hand, there is conflicting evidence that political views are related to vaccine hesitancy (Siani et al., 2022; Stoeckel et al., 2022). Thereby, an overwhelming proportion of relevant literature tend to assosiate mostly populist politics with vaccine hesitancy, as well as right-wing and left-wing populism with common anti-elite, anti-expert and anti-establishment views and narratives (Kennedy, 2019; Recio-Román et al., 2021; Stoeckel et al., 2022).

Taking this into account, it would be useful to make clear at this point that scientific empirical evidence which associate right-wing political orientation with vaccine hesitancy is being reviewed in the context of this paper, in an endeavor to explore this part of socio-political reality, especially in the case of the Pieria region and is socio-political milieu, but not in an effort to advocate for relevant association as there is no solid empirical evidence that could support analogous scientific consensus.

An online survey (Made to Save/YouGov, 2021) conducted in the United States of America during the August of 2021 brought to light a differentiation in vaccine acceptance among people of color. The participants were 1,505 people of color (including: Asian, Black, Hispanic, Middle Eastern, Multi-Race & Native American) and Figure 1 presents some notable results.[3]

Figure 1: Vaccination Status by Political Party in the US (among people of color, nationally)



Source: Made to Save/YouGov (2021).

[3] https://madetosave.org/wp-content/uploads/2021/09/toplines_mts-yg-1.pdf (Accessed 23 August 2023).

A clear differentiation can be observed in terms of political orientation. Those self-identifying as Republicans[4] exhibited vaccine hesitancy and a refusal to vaccinate at a rate which is double the rate of those who self-identified as Democrats.[5]

Another 2022 noteworthy research project (Rathje et al., 2022) from the USA and the UK was comprised by two studies. Study 1 had a sample of 464 Twitter users and study 2 a sample of 1,600 Twitter users. In Study 1 it was found that following accounts of US Republican politicians and "hyper-partisan/low quality news sites were associated with lower confidence in the COVID-19 vaccine" (ibid, p.1). In the same way, users that followed specific US right-wing influencers were among those with the lowest confidence in the vaccine. Also, within the USA, right-wing accounts had a significant association with vaccine hesitancy, a phenomenon that was not replicated in the respective community in the UK. In general, evidence from both studies of that research project suggest significant association between "following, sharing, and interacting with low-quality information online" (ibid, p.1) and vaccine hesitancy. Furthermore, conservative users within the USA seem to be more likely to be vaccine hesitant. Network analysis conducted in the context of the specific project also suggested that those with the highest and those with the lowest confidence in vaccines were separated into two distinct groups which resulted in the creation of "echo champers".[6]

Another research project in Norway relied on a survey that was carried out in two waves, one in October/November 2020 and one in May 2021. The survey was a "web-based panel survey on citizens' trust in, and reactions to, public policies during the COVID-19 pandemic in Norway" (Wollebæk et al., 2022, p. 260) which included a sample of 50,000 internet users. It was found that refusal to vaccinate against COVID-19 was associated with right-wing ideological constraint. During the data analysis Wollebæk et al. (2022) it was made clear that those with right-wing ideological constraint did not simply appear to be vaccine hesitant but rather exhibited a vaccine refusal as a political act, thus politicizing their stance against the COVID-19 vaccine.

Partly Mandatory Vaccinations against COVID-19 in Greece

Only a few countries in the world made vaccination against COVID-19 mandatory or partially mandatory. Less than 20 countries[7] globally proceeded with the implementation of such measures and

[4] The Republican Party in the USA is one of the two major political parties and the one that mainly expresses American Conservatism, Centrism, Neo-Conservatism and Christian Right in the USA politics.
[5] The Democratic Party in the USA is one of the two major political parties and the one that mainly expresses Modern American Liberalism, Progressivism, Centrism and Social Democracy in the USA politics.
[6] Echo chamber is a social phenomenon concerning people's selectively exposure to information, news and ideas that reflect their beliefs (Cinelli, 2021).
[7] https://www.statista.com/chart/25326/obligatory-vaccination-against-covid-19/ (Accessed 8 August 2023).

only six EU members-states, including Greece, made it partly mandatory (Rachaniotis et al., 2022). This action taken by the Greek government concerning healthcare workers, caretakers of the elderly and for people over the age of 60, raised many controversies within the Greek society, however the fiercest controversies though took place online, on social media like Facebook and Twitter[8].

Evidence from a 2020 survey in Germany (Juen et al., 2023), which had a sample of 2,265 German participants, has showed that opposition to mandatory vaccinations was not a matter of right-left political orientation but rather the combination of right-wing attitudes and populism was the most influential factor in opposing the possibility of compulsory vaccinations against COVID-19.

The Case of Pieria

Some basic facts about Pieria

The regional unit of Piera is one of the 74 regional units of the Hellenic Republic. Its capital is the town of Katerini, one of the 13 most populated cities in Greece. Pieria is a part of the region of Central Macedonia located in northern Greece. Its resident population is 119,384 people, a number 5.1% lower than the resident population that was recorded in the previous census of 2011 whilst the general population of Greece is lower by 3.1%. The Pierian population is consisted of 51.1% women and 48.9% men, an identical sex ratio with the general population of Greece (Hellenic Statistical Authority, 2023). Additionally, Peria has been a reliable and contentious origin of Greek migrants who live all around the world, including the United States of America, Germany, the United Kingdom etc. During the last 14 years of the consecutive and continual crises, many young people have left Pieria in order to pursue better employment and career prospects abroad. This has led to the loss of very important human capital consisted of many young, educated and highly skilled people. In this way, Pieria has been leading the massive loss of highly skilled Greeks who are emigrating, a phenomenon which has come to be known throughout academic literature as “brain drain” (Labrianidis, 2014; Koniordos, 2017).

Religion in Pieria

Religion in Greece has played, and continues to play, a major role in terms of identity, culture and even social care (Polyzoidis, 2019; Mitropoulou et al., 2020). Religion has always played an eminent role in Pierian society as well. The vast majority of the religious Pierians are Greek-Orthodox Christians (most of them belonging to the Kitros, Katerini & Platamon Diocese of the Church of

[8] Twitter was renamed to “X” application during July 2023, but for the needs of this paper the initial name of the application will be used as it is referred to in that way throughout literature and because it was still used by all the participants of the empirical study as described below.

Greece, while some belong to minor communities of Old Calendarist Churches[9]). Another major religious community in Pieria is the Greek Evangelical Church of Katerini. There are also some other protestant churches of, relatively, less influence. Admittedly, both of the Diocese of Kitros, Katerini & Platamon (Mitropoulou et al., 2020) and the Greek Evangelical Church of Katerini, are two vivid communities and institutions with a series of spiritual, philanthropic, missionary, cultural and social activities with major impact in the local socio-cultural milieu.

Civil society in Pieria

Before the 2007-2008 global Financial Crisis hit Greece in 2009 as a colossal public dept crisis, civil society in Pieria was relatively small and weak in terms of influence, numbers and impact, mirroring as the rest of the country (Polyzoidis, 2008; 2009). That changed by the sudden and cosmogonic social, economic and political changes in the new context of a crisis-ridden Greece. So, in the context of the crisis, the role of the third economic sector changed in general, due to the deficiencies of the Greek state, and the increased needs for social care and social welfare services in general (Polyzoidis, 2016). A unique example of the third sector's new dynamic in Pieria is that of the Voluntary Action Group of Pieria "O topos mou" which, since its establishment in 2007, has developed various noteworthy and influential actions and initiatives concerning the refugee crisis, the natural environment, various social issues, economic inequalities and poverty, political transparency at a local, regional and national level, civil protection, culture, arts and solidarity economy. It would be fair to say that Pieria became one of the major theaters for the development of solidarity economy nationwide (Rakopoulos, 2014).

COVID-19 vaccination coverage in Pieria

COVID-19 vaccination coverage in Greece is being recorded in respect to the Regional Unit that it has taken place. Taking this into account, it is clear that there is no absolutely safe way for anyone to know in an exact way the regional origin of those vaccinated. This fact is clearly indicated by the vaccination numbers of each Greek regional unit in correlation with their resident populations. Considering the internal migration for educational reasons, family reasons, work, and of course seasonal work – for instance, in the tourist industry which is one of the main economic activities in Greece (Buhalis, 2001; Eeckels et al., 2012) – the statistical abnormalities in the vaccination coverage in respect to the regional units are at least explicable. For example, the vaccination coverage in the world-class top tourist destination regional unit of Thira in respect to its resident population is up to 138.64%, only second to its equivalent regional unit of Mykonos which exhibited a percentage of 165.46% in its vaccinated population.

[9] Most of them self-identity as "Genuine Orthodox Christians".

In regard to the vaccination coverage in Pieria, the regional unit is ranked in the 51st place amongst the 74 Greek regional units with a rate of 70,81% of COVID-19 vaccine coverage. This cannot be interpreted as a high percentage, as Pieria constitutes a major tourist destination in northern Greece (Zografos & Deffner, 2009) where thousands of seasonal workers are employed each year.

Concerning Pierian politics and the June 2023 National Elections

The electoral district of Pieria is represented in the Hellenic Parliament by four Members of Parliament (in a sum of 300 MPs). Historically, Pieria has been an overwhelmingly center-right and right-wing electoral district. No matter which party won the election, the center-right party of Nea Dimokratia has been the district's winner party in every national and European election since at least 1996 (Ministry of Interior, 2023).[10]

The turnout in Pieria on the National Elections of June 2023 was at 53.91%, a very similar percentage compared to the national turnout which was 53.74%. Those elections resulted to an eight-party parliament with four right-wing parties represented: Nea Dimokratia[11], Spartiates[12], Elliniki Lisi-Kyriakos Velopoulos[13] and Dimokratiko Patriotiko Kinima "NIKI"[14]. An extraordinary fact about the results of these elections is that the electoral district of Pieria gave the three minor right-wing parties a total sum of 21.82%, while nationwide those three parties' total sum was at 12.82%, placing Pieria at the top of electoral districts in terms of the highest rates of right-wing parties excepting Nea Dimokratia (Ministry of Interior, 2023). Those parties are perceived through the lens of Political Sociology and Political Science in general as right-wing, alternative, neo-conservative and populist right political parties. They mainly express anti-elite, anti-establishment, anti-liberal, Eurosceptic, anti-immigration and anti-globalization political views.

Empirical Research Methods and Materials

Empirical research ethics

All the stages of the empirical social research conducted for the needs of this paper follow the rules and regulations of the Ethics and Deontology Committee of the Democritus University of Thrace[15], as

[10] National elections of September 1996, April 2000, March 2004, September 2007, October 2009, May, 2012, June 2012, January 2015, September 2015, July 2019, May 2023 and June 2023.
As well as European elections of June 1999, June 2004, June 2009, May 2014 and May 2019.
[11] First place nationwide with 40.56% and in Pieria with 38.80%.
[12] Fifth place with 4.68% and sixth in Pieria with 5.56%.
[13] Sixth place with 4.44% and fifth in Pieria with 7.00%.
[14] Seventh place with 3.70% and fourth in Pieria with 9.56%.
[15] https://ethics.duth.gr/%ce%ba%ce%b1%ce%bd%ce%bf%ce%bd%ce%b9%cf%83%ce%bc%cf%8c%cf%82/ (Accessed 1 July 2023).

well as with the General Data Protection Regulation (GDPR)[16] which is in effect in all of the European Union.

About case studies

A case study is being employed in many disciplines of social science (Priya, 2021). According to Yin (2009), a case study is not a method of data collection, but it is more of a research strategy in order to study a social unit. The "cases" that are more commonly subjects to study, are associated with specific locations such as communities or organizations (Bryman, 2015). As Creswell (2014, p. 214) notes "Case Studies are a qualitative design in which the researcher explores in depth a program, event, activity, process or one or more individuals".

The sample

A purposeful sampling combined with snowball sampling method was used to recruit the participants. It was a challenge to make other people trust a researcher who conducts research on a matters like social media, politics and vaccination, that is why snowball sampling method proved valuable in carrying out the empirical research. From the initial 10 people that were approached by the researcher, 7 accepted to take part in the research completely anonymously. After conducting the interviews with each of the 7 informants, the researcher asked the participants if they could introduce him to a total of 15 new people that seemed to fit the research target-group profile based on their social media presence. Only 9 of them accepted to participate in the research, making the total sample grow to 16 people, a reasonable sample for qualitative research.

16 residents of the regional unit of Pieria, all of whom were active and vocal, everyone in his/her own way, on social media about their doubts concerning the COVID-19 vaccines and their refusal to get vaccinated. Also, according to their statement, all of them voted for one of the three right-wing parties that are represented in the Hellenic Parliament (Spartiates, Elliniki Lisi-Kyriakos Velopoulos and Dimokratiko Patriotiko Kinima "NIKI").

Research procedures and analysis

Unstructured interviews were conducted in order to help generate an intensive, detailed examination of the case under examination (Bryman, 2015, p. 68). By choosing to avoid asking structured and standardized questions, an effort has been made to prevent the researcher's biases from affecting the research. Also, unstructured interviews can make informants feel more relaxed and comfortable, so that they might express their thoughts, beliefs and reflections more naturally and freely. The general

[16] https://gdpr.eu/tag/gdpr/ (Accessed 1 July 2023).

direction of the interviews was to unveil and enlighten views, attitudes and reflections of vaccine hesitant people with right-wing political orientation from Pieria.

Participants' basic demographics:

Pseudonym	Gender	Age	Place of residence	Educational level	Religious beliefs
Georgios	Male	23	Katerini	Bachelor's Degree	Christian Orthodox
Anastasios	Male	29	Katerini	Technical High School Diploma	Christian Orthodox (Old Calendarist)
Georgia	Female	29	Katerini	Bachelor's Degree	Christian Orthodox
Anastasia	Female	30	Katerini	Master's Degree	Christian Orthodox
Maria	Female	34	Katerini	Bachelor's Degree	Christian Orthodox
Artemis	Female	37	Katerini	General High School Diploma	Christian Orthodox
Alexandra	Female	38	Katerini	Technical High School Diploma	Christian Orthodox
Alexandros	Male	40	Katerini	Bachelor's Degree	Not religious
Martina	Female	44	Katerini	General High School Diploma	Christian Orthodox
Socrates	Male	45	Katerini	Master's Degree	Evangelical
Giannis	Male	49	Katerini	Master's Degree	Not religious
Ioanna	Female	50	Katerini	Bachelor's Degree	Evangelical
Eleni	Female	53	Katerini	Technical High School Diploma	Christian Orthodox
Christos	Male	54	Village of Pieria	Technical High School Diploma	Christian Orthodox
Kostas	Male	56	Village of Pieria	Bachelor's Degree	Not Religious
Katerina	Female	57	Village of Pieria	Junior High School Diploma	Christian Orthodox

All interviews were conducted online during July and August 2023 via video-calls using Facebook Messenger and Skype, at a time of the interviewees' choice for their convenience. All of interviews were recorded with the informed consent of the participants. After all of the interviews were concluded, their content was transcribed. The transcripts that were produced were studied multiple times by the researcher. In the context of the thematic analysis of the data, initial codes were generated. The initial coding was reviewed and according to the relevancy of their content, certain themes have emerged (Schreier, 2012). The themes were named, reviewed and analyzed.

Findings and Discussion

All of the participants have been vocal on Facebook about their vaccine hesitancy and refusal to get the vaccine, and their activity on this platform prompted the researcher to contact them. Facebook has been chosen as it has been, for quite some time now, a cyberspace for vaccine hesitant views to be

distributed and communicated (Smith & Graham, 2017). During the interview process, the participants affirmed that, in addition to Facebook, they also used Facebook Messenger and Viber, almost daily, to exchange information and opinions about the vaccines and the pandemic in general. They did that mostly through large group chats that included many people who shared almost identical views with them. Also, they would use Twitter, so that they could express themselves on the vaccines more freely than Facebook and get more updates by other Twitter accounts that were critical about the vaccines in a similar way Thelwall et al. (2021) found.

Social media promote freedom and interpersonal connection during the pandemic

Almost every one of the participants believed that social media function as a way to avoid the censorship that they believe was imposed about the pandemic and the COVID-19 vaccines on conventional media:

> "I don't think social media play a positive role in every occasion, but during this time of that pandemic, you can find information there that the mainstream media conceal." (Kostas, 56)

> "I think that on social media, there's less censorship than in the mainstream media and that's why many people turn to these sources of information." (Maria, 34)

For them, these new, online media promote freedom of expression and is a way for them to combat what they call "The System" as observed elsewhere around the Globe (Stoeckel et al, 2022):

> "The Internet is freer and it is more difficult to be controlled by the System." (Anastasia, 30)

> "I believe that through social media, you can express yourself freely and also get to know others with the same way of thinking." (Alexandros, 40)

Also, they used social media during the pandemic and especially during the lockdowns that were imposed in Greece in order to keep in touch with those that were important to them. The most common reference amongst the sample, was that of their "spiritual fathers". These "spiritual fathers" can be Christian Orthodox priests who serve in parishes or hieromonks/priestmonks who live in monasteries and are called as such when a believer regularly performs with them the Sacrament of Holy Confession:

> "I didn't use social media that much before the pandemic. But after the first lockdown, social media was a way of getting in touch with people that was important for me; even my spiritual father." (Eleni, 53)

> "During the lockdowns it was really difficult to meet with my spiritual father and the other people with whom we used to have gatherings before the pandemic, so social media functioned as a way to keep in touch." (Anastasios, 29)

Many Orthodox Christians, under the guidance of many priests and priestmonks in Greece, in contrast to the decisions of the leaders of the Church of Greece, were opposed to vaccination against COVID-19 (Issaris et al., 2023). The majority of them belong to the "flock" of the Church of Greece, and some belong to smaller Old Calendarist Churches that are not in communion with the Church of Greece.

The truth is more likely to be online

When the conversation during the interviews came to the matter of the validity of the information that can be found online, most of the respondents expressed statements which in reality meant that there is, indeed, valid information online "if you can look for it":

> "Surely, you can get valid and trustworthy information via the Internet if you know where to look for it." (Georgios, 23)

Especially, when comparing the information found online with that communicated on TV:

> "Of course, you can find many garbage on the Internet, but I believe it is safer to get informed by the Internet than the television." (Georgia, 29)

The Internet seems to most of the participants as the best way available to find the truth about current affairs:

> "Look, man, in our times you can't be sure about anything and anyone but on the Internet, it is more likely to find the truth about what's going on." (Christos, 54)

You can't trust the system

Distrust towards most of the institutions overflows the transcripts and is stated by every single one of the 16 people which make up the sample. This lack of trust and confidence on the institutions seems to be deeply correlated with the participants' vaccine hesitancy and refusal. Anti-System and anti-establishment views are dominant in vaccine hesitant narratives (Recio-Román et al., 2021; Stoeckel et al., 2022). The most representative of their statements are presented at this point:

> "Well, I can't believe that the state, the European Union, the big companies, are so worried about my health… So, I'm not going to risk getting a vaccine that the System want me to get." (Ioanna, 50)

> "Look, man, maybe I would have thought in another way if they hadn't been so persistent about it! I'm the master of myself and body and I don't allow anyone to take such decisions for me." (Giannis, 49)

> "Well, I don't know… Is there an institution in Greece that you can trust? I think all the institutions in our country are untrustworthy and corrupt." (Kostas, 56)

Once more, as seen very frequently throughout relevant literature (Thelwall et al., 2021; Galanis et al., 2022a; Attwell et al., 2022; Wawrzuta et al., 2022) concerns about the safety of the vaccines are emphatically stated:

> "I don't want to have the vaccine, because I'm not an ape to have new vaccines tested on me!" (Socrates, 45)

Politicians, Media, but also scientists too (Plohl & Musil, 2021) are approached with deep distrust by almost every one person of the sample. That seems to negatively affect any possibility to make the participants feel more confident about the vaccines which they have linked with the worst expression of "The System":

> "I can't trust the politicians, nor the Media, nor the scientists that say what they say on the television from day to night! I think none of them work for me, yet they all feed from me!" (Alexandra, 38)

Only trust some more traditional institutions

Participants only expressed trust in some more traditional institutions. That can be perceived as a natural aspect of their right-wing political orientation, if correlated to social and political conservatism expressed by the three minor right-wing parties that are voted by the people who make up the sample of this research. Hence, the Church, the Military and the Police seem to be the most trustworthy institutions for most of the participants. When asked about which institution or institutions they trust the most their answers were enlightening:

> "I don't know, man… Maybe the Military. Because they are the ones who will risk their lives for all of us if there is danger." (Georgios, 23)

> "I would say that I trust the Church, the Military and the Police. Because, if there are some trustworthy institutions in Greece, those three are the ones. The Church is here for centuries, and the other two are the only institutions that they can protect our country from external and internal perils." (Anastasios, 29)

However, three of the participants included the National Healthcare System in the list of institutions they trust, as stated for example by Anastasia:

> "I would say the Military and the hospitals. They are the only ones that put their lives at risk for the Greek people. You know, they don't have the necessary resources to do their work, but they struggle with what they have!" (Anastasia, 30)

Pro-vaccine parties are no good

In terms of the correlation between vaccine hesitancy and the political party which they support and vote for, 10 participants on one side, not only confirmed that their vote was influenced by their vaccine hesitancy, but they escalated this issue to a deeply political one:

> "Definitely! I wouldn't vote for any of the systemic parties that were in support of the vaccine!" (Anastasios, 29)

> "How can I trust the future of the Nation to political parties and politicians that wanted me and my kids vaccinated by a dangerous vaccine?" (Giannis, 49)

So, they seem to clearly politicize the issue, as observed in a major sample in Norway (Wollebæk et al., 2022), by rejecting a priori the parties that they thought to be "pro-vaccine" during the pandemic.

Same vote regardless the vaccine story

On the other side, there were 6 participants that stated that their vote was not affected or influenced by the political parties' stances on the COVID-19 vaccines:

> "I would have voted the same party, even if there were no such thing as the pandemic in general." (Alexandra, 38)

As Alexandros argues, nationalistic ideas are much more important for him than the vaccine:

> "I'm a nationalist, I couldn't have voted for anything else. It's a matter of ideology. The story about the vaccines comes last among the reasons of my vote." (Alexandros, 40)

Furthermore, Maria and another two participants stated that their votes were not due to their trust in the right-wing party of their choosing, but rather a matter of choosing the lesser of two evils:

> "No, I didn't vote while thinking only about the vaccine. My vote is independent from the issue about the vaccines; I voted for the lesser evil for Greece, for our fatherland. The party I chose just happened to also have a critical stance against the vaccine too." (Maria, 34)

Conclusion

As suggested by literature and evidence from this research project, the pandemic has challenged post-modern democracies in many ways. In this context, some people seem to feel suppressed and deprived of some of their freedoms. Social media were used in an effort to "resist" and reclaim freedoms that seemed to be in jeopardy during the pandemic, but also in the post-covid era. Lockdowns seem to have triggered people's need to be part of something greater and their need to communicate with those close to them, with those they trust the most.

Online social media seem to be more reliable and trustworthy than conventional media for people that are vaccine hesitant and have expressed an alternative to the mainstream center-right Nea Dimokratia, right-wing political orientation. Institutions in general are perceived with great distrust, as the participants of the study seem to feel deeply alienated by what they call "The System" in terms of Greek, European and Global political and economic elites. They only trust some more traditional institutions that make them feel safer, a need that is to be expected, especially in the case of Greece that has been in successive and continual crises from 2009 and forth.

There is no much evidence that right-wing vote is significantly affected by vaccine hesitancy, however the qualitative analysis within this case study, but also parts of the relevant international literature, shows that there might be indications which support links between right-wing vote and vaccine hesitancy that need to be subject to further research at a larger scale.

Limitations

The present study communicates findings from a small-scale qualitative study based on interviews with vaccine hesitant voters of the three minor right-wing parliamentary parties in Greece. Its aim is to add to the understanding of the roles of social media and the links between vaccine hesitancy and right-wing political expression through voting. The findings and the conclusions drawn by this research are all in reference to the case of Pieria and in particular to the people with the specific characteristics that consisted the sample, hence no generalizations can be made.

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