

Vaccination: An Essential Protection of Children or a Free Decision of Parents? Cause Behind Parents' Decision to Not Vaccinate Their Children, in Greece

Zachariadou Ourania – Eleni (Rania)*, Anastasia Papadopoulou

Department of Social and Educational Policy, University of Peloponnese, Corinth, Greece.

How to cite this paper: Zachariadou Ourania – Eleni (Rania), Anastasia Papadopoulou. (2022). Vaccination: An Essential Protection of Children or a Free Decision of Parents? Cause Behind Parents' Decision to Not Vaccinate Their Children, in Greece. *The Educational Review, USA*, 6(9), 464-472.
DOI: 10.26855/er.2022.09.003

Received: July 27, 2022

Accepted: August 22, 2022

Published: September 23, 2022

Corresponding author: Zachariadou Ourania – Eleni (Rania), Department of Social and Educational Policy, University of Peloponnese, Corinth, Greece.

Email: zachariadou.rania@gmail.com

Abstract

The present study attempts to explore existing findings related to parents' decision to not follow recommended vaccination schedule on their children. Through qualitative research methods we investigate causes leading to such parental decision. The research is taking place in Greece. Researchers conducted semi-constructed interviews with a sample of 9 parents who avoid recommended vaccination schedule. Prior to the research ethical issues and concerns have been taken into consideration and applied. The data analysis was performed based on the themes extracted in the interviews. In the discussion section we address the findings in greater detail, establishing links and contrasts with results found in previous research in other countries. The main aim of this research is to examine in depth the reasons explaining parents' decision in the Greek context and link the context of such decision with both children's and parents' rights. At the same time, we aspire that by giving voice to parents' explanation, society and medical actors may obtain a better understanding of the phenomenon, as an attempt to open the field for discussion and future research, with purpose the best serving of Children's Rights.

Keywords

Vaccination, Parents, Health Actors

1. Introduction

During the last decades there has been a growing number of parents who are concerned about the effect and the necessity of vaccination (Dempsey et al., 2011). That has led to an increase in the number of parents who decide to follow a different vaccination schedule (other than the one recommended by doctors) for their children or they prefer to not give them any vaccination at all (Dempsey et al., 2011; Luthy et al., 2012; Horne et al., 2015). These parents are the minority; however, their number as stated earlier is increasing. According to several health actors across the world, this phenomenon constitutes a risk for children (Dempsey et al., 2011; Luthy et al., 2012; Glanz et al., 2010). Due to constant development and changes that have been taking place around the world such as new viruses and germs, easier and more frequent trips for the Western population, migration of people from developing countries with little or minimal medical care, it is important to address such risks. Nevertheless, there is little information regarding these parents' beliefs and a significant absence of dialogue between proponents of vaccination and those who hesitate.

There are various questions that emerge due to this trend. Some of them are related to the risks that such a decision involves for children's health and development, to the reasons why parents would take such a risk for their children and

whether children rights protection is ultimately dependent on parental choice or on medical directives. Although there has been interest in the academia on the topic, there is hardly any literature addressing the issue within the Greek context. In this study we are attempting to fill this gap by exploring the following question:

- What are the main causes which lead parents to ignore recommended instructions by medical actors and states and assume a different approach towards their children's healthcare?

In order to better comprehend the phenomenon, we explored relevant literature and existing findings emphasizing on the context in which the decision for non-vaccination or alternative forms of vaccination schedule is taken. To obtain a wider perspective of the issue, we undertook qualitative research methodology and specifically in-depth interviews with parents whose approach is most relevant to the topic. We made sure to provide parents with a safe space for discussion and elaboration of their reasoning behind a decision which could be seen as potentially jeopardizing their children's best interest. As our research aim is twofold, we focused not only on parents' reasoning for their decision but also on opening the discussion for alternative proposals which could be emerged linking medical instructions with hesitant parents.

Participation to the study was voluntary and anonymous, ensuring that participants can refuse to provide feedback at any point of the interview. Further, participants were fully informed in advance about the purpose and the process of the study.

As we are interested in children's best interest, we aspire to assist the research community in further understanding this phenomenon by investigating the topic in the Greek setting. At the same time, our goal is to further address the relevancy of the issue in public policy making, giving the opportunity to these parents to be heard, and through the findings and discussion assist in developing frameworks which could more effectively promote children's rights with respects to their health.

2. Theoretical background to be entered

2.1 Methodology

In this section we analyze the methods, the steps and the limits of our research. In addition, in this chapter, readers can find some useful information about the participants, the ethics and the epistemological perspective which we followed. At the end of this section the reader would be in a position to understand the process of this study and the way in which we have attempted to answer our research question.

2.2 Methods

By an epistemological perspective, every research follows a logical order, a way of reasoning in order to gain knowledge. Most of the researchers adopt rationalism or the interpretivist approach. Trying to put this study in either of these categories, we believe that interpretivism could serve more effectively the purposes of this research, due to the fact that it recognizes the interplay of subjective meanings and social actions (Walliman, 2006). Moreover, it attempts to reveal the interpretations and meanings of the phenomenon that it examines (Walliman, 2006). Although rationalism is usually the result of deductive reasoning, in this study both deductive and inductive reasoning were used. The method which combines both deductive and inductive reasoning is the hypothetico-deductive method (Walliman, 2006).

This research is a qualitative research taken place in Greece. We have chosen qualitative research, due to the fact that this methodology is the most appropriate for studies that aim to share in the understandings and perceptions of human beings and "to explore how people structure and give meaning to their daily lives" (Bruce L. Berg, 1989, p. 7). This seems to serve one of the main goals of this research: to get a deeper understanding of these parents perspective regarding the vaccination of their children.

As this is a focus qualitative study, we focused on small number of parents. This study could also be regarded as a preliminary research, due to the fact that is the first time that it take place in Greece and researchers attempt to offer an identifying approach and view. Focusing on a small size sample, we are trying to light a particular phenomenon in great depth. Thus, another reason behind the decision to do a preliminary research focusing on this subject was that this temporal chronology is unique for Greece. The migration of families coming from a different health and medical background or/and from countries which is in war for several years in row, in correlation with the rise of parents who refuse to vaccine their children, has led to a public discussion about the decrease of "passive" protection of minors and to the re-emergence of diseases we had forgotten in Europe.

In order to analyze the data, we will use the narrative which assists readers to better follow the nature of events and the main relationships or processes of the phenomenon. In this study we also use narrative in order to analyze the themes which have emerged during data collection. It should be noted that due to the nature of the study the findings cannot be statistically representative, especially given the limitation of the small sample (Perri & Bellamy, 2012; Wal-

liman, 2006). Commenting on this, Rogowski (2010 [2004], cited in Perri and Bellamy, 2012) claims that the results of a case study—which usually is similar in sample size with our study—could be provisionally generalisable to other similar cases, due to their theoretical basis and the analytical approach.

2.3 Prior to data collection

Our first step was to access parents interested in voluntarily participating in our research study. For this purpose, we used personal and professional networks, such as professionals in the medical and child protection field, and we also performed outreach on social media platforms such as Facebook. Upon expression of interest to participate in our research study, each participant was ensured a safe environment of trust by fully explaining the purpose and goals of the study as well as the tools and process of the research. All participants' personal data would be protected through anonymity, and a consent form was signed prior to the interview to ensure permission to record the interview session and the possibility of publishing study's findings. Interviews were held via telephone or video calls at a time of participants' convenience.

The issue of anonymity and voice recording were themes that also discussed before and during most of discussions. In both, Consent Form and discussions before interviews, it has been clarified that the participation is voluntary and anonymous. The issue of voice recording has also been discussed in advance, as it is helpful for researchers, but it is not obligatory at all. None of the participants had disagreed on this. In addition, it seems like most of the participants (8 out of 9) did not have any concerns about anonymity and some of them clarified that even if we share their names, they would like to participate. This is mainly explained by them as the result of feeling voiceless and that they would be positive to participate to a research which gives them the opportunity to express themselves. Even the only person who was hesitant at first, has explained that her/his fear was that someone could find her/his name and that several issues could be emerged to her/him and his/her family. The combination of criticism that they receive, and the perceived lack of free expression possibly created additional problems to these parents, their children and the society in general.

2.4 Data collection

There is a variety of methods that can be used in a similar research studies. The majority of data which are useful in order to answer our research question are qualitative. Designing our research we constructed semi-structured in-depth interviews, as it is most appropriate for the purpose of the study and strongly assists in the collection of data that are essential (Walliman, 2006).

2.5 Interviews

During the interview, participants held the primal role. The structure of interviews had been configured carefully to allow each participant to present their views and freely elaborate on their explanation. In more detail, the first questions were related to demographic data and aimed at describing parents' basis profile. Moreover, before the beginning of the conversation we repeated that they could refuse to answer any of the questions without having to explain the reasons and assured them that their personal data were protected. Further, we posed an open-ended question about their perspective on vaccinations and let them get the control of the discussion. Patton (2002, cited in Leeson, 2014) called this kind of interviews "conversational interview". All the interviews followed a basic structure, but participants were encouraged to lead the conversations. In other words, interviews were semi-structured and flexible enough, in order to allow participants to be the "drivers" and researchers to get information and perspectives that they aim (Walliman, 2006).

The main information we gather at this stage had to do with the profile of participants (gender, age, educational background, parental family's tense regarding vaccination ect.), family's decision-maker and the reasoning behind deciding on a different vaccination schedule for their children. Simultaneously, all interviews were recorded with the permission of participants. The voice recording did not include visual aspects such as body language, but it was significantly less intrusive than a video recorder (Leeson, 2014). In general, we did not face any communication problems during these stages.

2.6 Ethics

Due to the sensitive subject, some ethical issues had to be taken into account. Above all, we had to clarify in advance that their participation was voluntary and the participants could refuse their contribution at any stage of the interview. Specifically, we provided them with information and explications in advance and a written confirmation form (see Appendix 2) in which we explained the process of our research. Further, we elaborated the aims and the tools of the re-

search. The consent form also ensured the participants that the data would be anonymous (Hopkins, 2008). Moreover, as it is recommended to social researchers, before the beginning of the research we were informed about the cultural (included religious) norms (McDowell, 2001).

The presentation of the data followed an ethically sensitive manner. In more detail, privacy and confidentiality were two essential parts of the research. In order to protect participants, during the analysis, data were presented in a less personal way, avoiding names and using general words, such as “a parent”, “a participant” or/and “a guardian” (Hopkins, 2008).

2.7 Participants

The method of sampling of each research is a crucial stage of any research planning. In case of this research we have chosen the kind of Convenience Samples. This category of sampling is based on the availability of “subjects”. In other words, this method applies to research whose sample is chosen based on the easily accessible sample (Bruce L. Berg, 1989; Christina Nova-Kaltsouni, 2006). As such, researchers called for participants through: an announcement in a local gym, the usage of social media and looking into their social networks and work environment.

All participants were parents and/or guardians from Greece. The total number of them was 9. In more detail, the participants were:

- 8 female and 1 male.
- 2 of them were 40 years or older and the rest were between 27-37 years old.
- Their children are in minor age, between one month to 17 years old.
- They are raised in Greece and they are Greek nationals.
- They are living in 4 different areas of Greece: Athens (the capital of Greece), Thessaloniki (the second most populated city of Greece), Crete and Drama.

2.8 Limitations

To interpret the findings of the study, one should consider its limitations. One of them is the fact that we asked participants to discuss and elaborate on a personal issue, a subject which is supposed to belong only in the private sphere of the family. It is possible that parents would be afraid that their beliefs would be criticized as it is often the case. One more issue of consideration is the language. Note that the language used during interviews was Greek, but the language of presentation is English. Interviews were translated by the authors. Despite the fact that both researchers are well familiarized with both languages, this is a point that it worth mentioned at this part, as the fact that the data were translated from the participants’ mother tongue in English (by us) could cause unintentional misinterpretation of some words.

Another consideration to be noted relates to bias either from the researchers or/and the participants. To minimize potential bias effect, we spent time discussing with participants before starting our research and ensuring maximum neutrality in our approach.

3. Results and Discussions

3.1 Presentation of data

The data has been collected through semi-structure interviews which consisted by three parts. The first focused on parent’s profile and demographic information, asking questions related to the age group of parent, the residence city, the age of the child or children, the educational background of parents etc. In the second part, researchers tried to collect data regarding the personal history of the interviewees, for instance, whether s/he has been vaccinated, information about her/his parental background and views. During the last part of the interview, parents were encouraged to discuss about their decision to not vaccinate (fully or/and partly) their children. In more detail, in this section parents shared their personal view of the topic, explained the reasons which led them to this decision and provided information on the time period that such decision has been taken, the parent(s) who acted as the decision maker etc. To analyze and better illustrate the data, we started with a short description of the findings. Then, we proceed with outlining the importance of the findings to answer our research questions while linking the present study with existing relevant literature.

With respects to demographic data collected, the majority of the participants were parents aged between 27 to 37 years old, with the exception of two participants aged over 40. Children’s ages varied from one month old to 19 years old. All participants have completed the compulsory education and the vast majority (8 out of 9) had also completed tertiary education, in technical schools or universities. A few participants have graduated from a second degree, or completed postgraduate education (Masters or a PhD). Almost all participants have an active working status (only with

one exception of a parent who is on maternative leave) and all of them are related to or interested in alternative medicine methods.

Another aspect that emerged from that section is related to the beliefs and religion views of the parents. More specific, almost half of parents stated that they do not follow any religious system, even though they believe in God in a spiritual sense. Moreover, all the participants who placed themselves to a religion group mentioned that they are Orthodox Christians, but all of them specifically stated that their religious views were not related by any way with their decision to not vaccinate their children. It is worth to mention that only one parent clarified that although religion has not been a factor related to such decision, the fact that s/he is a believer to a higher power as God could work as a protective parameter for his/her family's wellbeing.

In the second section of the interview, participants provided information regarding their family background. All participants have been fully vaccinated as children. However, a number of them mentioned that during their childhood, the number of recommended vaccinations was much smaller than currently and that the rapid increase in the number of vaccinations is one of the reasons why some participants are hesitant with the recommended process. Note that the spouse of a participant has not received vaccination as a child due to an allergy. Most of them have been raised from parents who were Orthodox Christians, but none of them observed the religious system strictly. Additionally, all participants' parents had completed compulsory secondary education (9 out of 9), while in 4 out of 9 cases they have also completed higher level of education.

The research question regarding the reasons behind parents' decision to not vaccinate their children was discussed in depth and in detail, during the third part of the interviews. Fear seemed to play a detrimental role on parents' decision to not vaccinate their children. All participants stated that they have read and were informed regarding the potential side effects of each vaccine through studies, online articles and WHO's documents (Uppsala Monitoring Centre, WHO Collaborating Centre for International Drug Monitoring based in Uppsala). Even though they were fully aware of the low probability of such side effects, they were still threatened by such possibility. A participant specifically stated that s/he cannot take such risk as "my child is not a number".

In addition, almost all participants are aware of at least one child within their social and family network that got ill or had an allergic reaction upon being vaccinated. Taking this further, one of the interviewees also mentioned the issue of parental responsibility, as it seems that these parents are usually blamed as socially irresponsible. Comment on that, the participant stated that "in any case, the parent is the one who is responsible...I mean, whether I agree to vaccinate them and they get a serious illness or autism or even I do not vaccinate them and they get any illness, again I will be held responsible". In many respects, the fact that nobody, included doctors and medical staff cannot guarantee parents that there is no consequences from vaccines, seems to create perceptions of insecurity to these parents.

Other participants mentioned that they are skeptical because the number of proposed vaccines has significantly increased while at the same time the proposed age of minors for vaccination has lowered. Additionally, parents expressed their concern on the fact that the vaccines do not simply target one or two diseases each time, but multiple viruses, sometimes 4 to 6 different ones. Further, one parent mentioned that the pain the child experiences during vaccinations, had also had an impact on her/his decision to stop vaccinating her/his children. Particularly, this parent claimed that "It is like a rape to his body, to put inside of his skin a big (in relation with his arm) metal thing that causes great pain and give him a virus—even whether they are not strong- that could make him ill".

Another aspect is related to the financial profit of medical companies. More specific, some parents have mentioned that they have lost their trust in medical research about vaccines, due to the fact that pharmaceutical companies fund some of them and because, according to them, these companies want to advocate for vaccines because they make a great financial profit out of them.

Other points of concern that have been discussed during the last section of interviews, related to who and when the decision has taken place. Talking about the decision-maker, it seems that in most cases both parents made this decision together or one of them was more neutral about it (7 out of 9) and the remaining were convinced by their partner, after a period of evaluation. This finding is important because recently a decision of the Greek court has highlighted that both parents have to agree on decisions regarding their children's healthcare, regardless whether they are still married or not. Regarding the time when the decision has taken place, there is a variation of answers, but mainly it seems that most of the parents made this decision before or at the first years of their first child (Court decision, no ΜΠρΑθ 4029/2019). As a result, usually in case of the first child of each family, some vaccinations have been completed to some children of these families. Ostensibly, these data could be considered as unnecessary for this survey; however they are associated with other findings of research and they contributed to the understanding of the data.

Overall, taking into account the data, it appears that parents, who participated in this study, were all trying to provide the best possible option for their children and they deeply believe that they act in favor of children's best interest. De-

spite the criticism they receive according to their statements, they are highly educated individuals, who care for their children and they are trying to be informed regarding vaccinations' side effects, in order to protect their children from unnecessary risks. It should be noted the fact that these parents are afraid, as they know at least one case of a minor who had a negative reaction to a vaccine in combination to having no guarantee from medical staff that no harm will occur to their child. In addition, almost all the participants claim to be in contact with medical doctors who agree or/ and accept that vaccines are not necessary in general or at least not for the first years of life.

In the remaining of this section, we are going to examine the links between all the data in more detail.

3.2 Links between data

Conversations with targeted participants in this research offered a plethora of information regarding their profile, background, beliefs and experiences. It is interesting that throughout the interviews parents shared similar ideas, sources of information and reasons behind their decision. In other words, their narration did not differ much; yet each interview offered additional details and information. Beginning with the demographic data, it seems that the majority of participants are young parents with children from one month old to 13 years old. Moreover, the employment sector of many participants was related to health care services. All participants seem to be opened to alternative healthcare methods, such as no pharmaceutical products and homeopathy as treatment. According to most of them, nature has given herbs and useful products that can help humans' strengthen the immune system enough to effectively battle common illnesses and viruses. Furthermore, all seem to agree that a life close to nature, with joy, love and a healthy diet are keys for "a healthy child".

An important aspect for most participants is related to their interaction with medical actors. A strong correlation appeared between medical actors' behavior with regards to child vaccination and the reasons these parents decide to withdraw the procedure. Interviewees referred to facts, behaviors and conversations with doctors that made them feel uncomfortable to follow the vaccination schedule that is proposed by the state. For instance, a participant mentioned that when s/he asked the pediatrician regarding potential side effect risks and reactions to the vaccine that their child had just undergone, the doctor answered none, and then refused to give to the parent the document which is included to the package of vaccine and records relative information. That incident scared the parent who was initially skeptical, but not negative to vaccinating back then.

At the same time, parents highlighted the fact that there is not any guarantee that vaccines cannot harm their children seriously and that even doctors cannot agree on children's best interest, regarding vaccinations. In more detail, all participants claimed that they have received different advice from different doctors about this topic. Some doctors were fully confident; some others were mostly negative, while others differed regarding the appropriate age of children who vaccinated, and about the necessity of some vaccines, even when they are included in the national recommended vaccination schedule. This fact confuses parents and scares them away. One participant specifically expressed his frustration on the matter as "If they (doctors) cannot agree, if they do not know what is the best option, how can they blame us?". Moreover, many participants mentioned other behaviors of medical actors that were problematic or negative, according to them. An example stated referred to the fact that most doctors do not ask for child's medical history report prior to vaccination. This has been mentioned from a parent whose first child had a negative reaction (seizures similar to epileptic ones) to a vaccine and s/he has been hospitalized for several days. The sister of that parent had a similar reaction to a vaccine when she was a child, and the parent assumes that her/his child could have avoided this side effect if the doctor had asked for child's medical history report in advance. Her/His conviction was supported by the fact that during his/her child's hospitalization, medical staff claimed that such seizures could be possibly related to side effects of the vaccination. As a consequence, the parent reconsidered about her/his decision to vaccinate her/his children and actually decided to not vaccinate again the child, or any of his/her younger children.

In the remaining of this chapter we discuss similarities and differences of this study with other research studies.

3.3 Similarities and differences on the field

Previous research studies were mainly focused on topics related to minor's vaccination and parents' anti-vaccination movement. In the present study, we have sought to explore the profile and the reasons behind parents' decision to not vaccinate their children. Despite the fact that there is a lack of similar studies in Greece, there is a number of research studies within the European and non-European context. The data of these researches present similarities or/and differences from the findings of our research. A couple of them are related to participants' profile. As it has already been mentioned, these parents seem to be highly educated individuals (Glanz et al., 2009; Gesser-Edelsburg et al., 2014).

The vast majority of participants claimed they did not follow religion closely and none of them took their decision based on or affected by religious beliefs. Even the parents who claim that they are Christians, they highlighted that they

are not close to the Church and that their spiritual beliefs did not play any role in such decision. Indeed, the only parent who mentioned any relation between the decision and religion claimed that his/her belief albeit not related to his/her decision, acts as a supportive factor as his trust in God protects his/ her children from serious diseases. However, these differ from other researches on the field whose data show a clear link between the religiosity of parents and their decision (Harmsen et al., 2013; Ruijs et al., 2012; Gessed-Edelsburg et al., 2014). Yet, the perception of no potential risks has emerged from some parents. This is based not only to their religious belief (1 out of 9), but mainly due to the fact that they are living in a developed European country, they follow a healthy diet and they are trying to be close to the nature.

This absence of the sense of risk is a common ground between this study and others that have been done previously (Least et al., 2012; Luthy et al., 2012). Taking this further, some participants who discussed with us about potential health risks mentioned conditions such as common cold or other easily treated illnesses, but no potentially serious condition. In some cases, they claimed that they would have preferred their child to get one of the common illnesses of childhood and recover naturally, than to avoid the illness via vaccination. Agreeing with this finding, Luthy et al. (2012) highlight that caregivers support that it is in favor of child's interest to contract harmless (but not the serious ones) diseases and recover, than to be vaccinated and in risk of more serious diseases or infections (Luthy et al., 12).

Regarding the medical history record of parents, this study found no link between the decision of parents to vaccinate their children and the fact that they were vaccinated. This contradicts the findings from Ruijs et al. (2012) research where the participants who have been vaccinated tend to vaccinate their children and the opposite. It is not clear whether we should take into consideration this difference, as all of our participants have been vaccinated and we did not examine two different groups of parents (vaccinated and no vaccinated). More research is needed to better identify whether individual's past medical history has an effect on shaping such parental decisions.

Regarding the time when the decision has been made, there are also some points to compare. Brunson in his research found that most of the parent makes this decision during pregnancy or during the first months of child's life. Additionally, other studies note that some parents change their mind later on, when other people share with them negative experiences or when they read extra resources correlated to the topic (Brunson, 2013; Leask et al., 2012; Horne et al., 2015). Our findings are in alignment with these past studies findings. In more detail, during the interviews, some parents referred that made the decision during pregnancy (2 out of 9), others during the first months of child's life (7 out of 9) and the rest after hearing stories and incidents of other people and investigating more about the issue.

The next focal topic is the reasons behind the decision of parents. Here there are several similarities between this study and researches which have been done in different countries across the world. The increasing number of proposed vaccinations, the early age of children when vaccinations begin, the potential risks of side effects related to vaccination, even the instinctual reaction of children to needles and vaccines, are similar across all studies (Brunson, 2013; Luthy et al., 2012). Fear regarding specifically the risk for side effects related to autism is also significant (Horne et al., 2015; Leask et al., 2012; Luthy et al., 2012). Moreover, the lack of trust on pharmaceutical companies and the direct or indirect others (usually negative) experiences effect the decision of parents significantly.

Similarities to previous research were also noted with regards to the effect the attitude of medical actors have on shaping a parental decision against proposed vaccination. In more detail, parents greatly agreed that they would like to receive more information about vaccines from health professionals, as the lack of professional information results in skepticism and suspicion towards this medical procedure (Harmsen et al., 2013). This finding is linked to parents responding by personally researching benefits and risks of proposed vaccination, relying mainly on resources available in the web (Leask et al., 2012; Harmsen et al., 2013). In the present study, many parents explicitly mentioned that they have looked for official surveys and medical reports on vaccinations published online, while one person mentioned that s/he included in his/her personal research relevant articles posted on Facebook and other social media.

Despite the fact that this research has several common findings with previous studies in the field, there is also a number of differences. The perception that somebody else controls issues about their children's health, as found by Brunson (2003), has not been reported by any participant in this study as a relevant cause for their approach towards vaccination. Further, in contrast to previous studies (Brunson, 2013; Leask et al., 2012, Gesser-Edelsburg et al., 2014) we found no link between parents' social norms and opinions of others around them and parents decision against vaccinating their children. More specifically, when participants were asked regarding the views of their social network, almost all of them said that most of people around them are critical and/or opposite to their approach. They claimed that their decision has been affected only by opinions of medical actors and scientific researches.

There is a link between the "immunity achieved" and "passive protection", which emerge by the fact that the majority of individuals in Greece are vaccinated, and parents who decide to not vaccinate their children. This fact could explain the perception of higher risks assigned to vaccinations than to the actual disease the vaccine intends to protect from, as

public immunity offered by mass vaccinations in the developed world has almost entirely eliminated the danger of serious diseases. In the present study and in contrast to Harmsen et al. (2013), some parents (2 out of 9) supported that the rise of the quality of life in our societies is a stronger protective factor with regards to the serious diseases than the impact of mass vaccinations.

Researches with families living in the so-called developing world have shown practical reasons such as the distance between the area of living and the health center, unemployment of parents, and low quality of health services as reasons preventing them from vaccinating their children (Odutola et al., 2015). The lack of economic resources of families seems to play an important role on parents' decision to not vaccinate their children in these contexts (Odutola et al., 2015; Leask et al., 2012). Given than our study targeted residents in Greece, the majority of them residing in large cities, economic resources and/or proximity to health centers were not referred as factors affecting parents' decision. More research is needed though to establish a relevant link in literature, as our study did not account for individuals low on financial resources or residing in more isolated areas in the country. Further, it should be noted that through this study we cannot have a clear view about this phenomenon with respects to the refugee and immigrant population residing in Greece.

Overall, given that the present study is based on a small sample of 9 parents who clearly oppose the recommended vaccination schedule for their children and who voluntarily responded to our call for participation in the study by discussing their views on the subject, it would be misleading to draw generalized conclusions. Yet, through the in-depth interviews the study allowed space to explore a variety of factors affecting parents' decision on vaccination, which could be further explored in future research.

4. Conclusion

In the present study we tried to explore first the reasons behind parents' decision to not vaccinate their children, a trend which seems to be increasing in the last decades. We presented concerns related not only to the individual sphere of parental responsibility but also to the public sphere of better promoting public health and children's' best interest. In more detail, we attempted to understand the views and reasoning of parents who do not agree with administering the proposed vaccination schedule to their children within the Greek context. The stronger causes that emerged were related to the fear of potential threat of serious side-effects of vaccines, inadequate information provision by medical actors, and lack of trust and/or frustration related to traditional medical system, governments and the pharmaceutical companies. Despite the criticism that these parents strongly perceive by their social environment, they appear convinced that the risks of following the proposed vaccination schedule to their children are much higher than the benefits, and that their decision to limit vaccination or entirely refuse it supports the best interest of their children, while assuming full responsibility for their action. Although the findings of this study cannot be generalized, we aspire that they serve as a starting point for future research and more inclusive policy making adjustments.

Concluding, the main aims of this research were to examine in depth the reasons that drive parents to this decision in the Greek context. Another aim of the study is to provide readers with a better understanding of the phenomenon, as an attempt to open the field for discussion and future research, with the purpose of promoting high service provision to children's rights. It is true that both parents who give and those who refuse vaccination, do so because they believe that this serves the best interests of their daughters and sons. Respecting the rights of both parents and children's, and considering that the rights of children and the protection of their lives are of imminent priority, we propose creating the space for dialogue between parents, health professionals, scientists and policy makers.

References

- Adams J., et al. (2015). Effectiveness and acceptability of parental financial incentives and quasi-mandatory schemes for increasing uptake of vaccinations in preschool children: systematic review, qualitative study and discrete choice experiment. *Health Technology Assessment*, Vol.19 (94): 1-176.
- Archard, D. (2015). *Children: Rights and Childhood*. London: Routledge.
- Brennan S. and Noggle R. (1997). The moral status of children: Children's rights, parent's rights, and family justice. *Social Theory and Practice*, 23(1): 1-26.
- Bruce L. Berg. (1989). *Qualitative Research Methods for the Social Sciences*. California State University, Long Beach.
- Brunson, E. (2013). How parents make decisions about their children's vaccinations. *Vaccine*, 31: 5466-5470.
- Committee on the Rights of the Children. (2013). General comment No. 14 (2013) on the right of the child to have his or her best interests taken as a primary consideration (art. 3, para. 1). United Nations Convention on the Rights of the Child.

- Dempsey A. et al. (2011). Alternative Vaccination Schedule Preferences Among Parents of Young Children. *Pediatrics*, Vol.128 (5): 848-56.
- Freeman, M. (2007). Article 3: The Best Interests of the Child. In Alen A., Vande Lanotte J., Verhellen E., Ang F., Berghmans E. and Verheyde M. (Eds.), *A commentary on the United Nations Convention on the Rights of the Child*, Leiden and Boston: Martinus Nijhoff Publishers.
- Freeman, M. (2011). Culture, Childhood and Rights. *The Family in Law*, Vol. 5: 15.
- Gesser-Edelsburg A., et al. (2014). Why do parents who usually vaccinate their children hesitate or refuse? General good vs. individual risk. *Journal of Risk Research*, Vol. 19 (4): 405-424.
- Glanz J., et al. (2009). Parental Refusal of Pertussis Vaccination Is Associated With an Increased Risk of Pertussis Infection in Children. *Pediatrics*, Vol.123 (6), pp. 1446-51.
- Glanz J., et al. (2010). Parental Refusal of Varicella Vaccination and the Associated Risk of Varicella Infection in Children. *Archives of pediatrics & adolescent medicine*, 164(1): 66-70.
- Harmsen I., et al. (2013). Parental information-seeking behavior in childhood vaccinations. *BMC Public Health*, 13: 1219.
- Horne Z., et al. (2015). Countering antivaccination attitudes. *PNAS*, vol. 112, no. 33: 10321-10324.
- <http://www.statistics.gr/en/greece-in-figures>, Hellenic Statistical Authority (update 31/03/2019).
- <https://www.who-umc.org/>, Uppsala Monitoring Centre (UMC), WHO Collaborating Centre for International Drug Monitoring based in Uppsala (update 22/10/2019).
- James, A. (2009). *Agency*. In J. Qvortrup et al., *The Palgrave Handbook of Childhood Studies*. London: Palgrave Macmillan.
- Leask J. et al. (2012). Communicating with parents about vaccination: a framework for health professionals. *BMC Pediatrics*, Vol. 12: 154.
- Leeson, C. (2014). Asking difficult questions: exploring research methods with children on painful issues. *International Journal of Research & Method in Education*, 37: 2, 206-222.
- Luthy K., et al. (2012). Reasons Parents Exempt Children from Receiving Immunizations. *The Journal of School Nursing*, 28(2): 153-160.
- McDowell, L. (2001). 'It's that Linda again': Ethical, Practical and Political Issues Involved in Longitudinal Research with Young Men. *Place & Environment*, 4: 2, 87-100.
- Nova- Kaltsouni, C. (2006). *Methodology of empirical research in social sciences: Data Analysis using SPSS 13*, Gutenberg: Athens.
- Odotola A., et al. (2015). Risk factors for delay in age-appropriate vaccinations among Gambian children. *BMC Health Services Research*, 15: 346.
- Ruijs, W., et al. (2012). How orthodox protestant parents decide on the vaccination of their children: a qualitative study. *BMC Public Health*, 12: 408.
- United Nations. (1989). *United Nations Convention on the Rights of the Child*. Geneva: United Nations.
- Wahlberg, J., et al. (2003). Vaccinations May Induce Diabetes- Related Autoantibodies in One-Year-Old Children. *New York Academy of Sciences*, 1005: 404-408.
- Walliman, N. (2006). *Social research methods*. London: SAGE.