

for the educational achievements of their children. To encourage parents with a lower level of education to participate in the realization of various educational activities in the home during the preschool period. Organizing various forms of support for parents with lower socio-economic status that would include donating funds, toys and educational materials.

Literature

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OPINIONS OF STUDENTS TOWARD VACCINATION

Abstract: Ever since the global media fuss about vaccination in 2017, and especially during the recent pandemic, the whole world is questioning its benefits. Some people are second-guessing whether vaccinations are good for public health or actually causing additional illnesses. After this populist news got public, different institutions started recording a decline in the number of people around the globe getting vaccinated per season.

Due to the recency and relevance of the topic, the purpose of this work is to define the most common opinion regarding vaccination among youth and conclude whether their peers are successful in influencing it or not. The conclusions are drawn from desk research, by examining secondary sources, as well as a survey, where the primary data gathered through a questionnaire is used to reject or confirm the hypotheses. The sample consists of 109 respondents, which were non-randomly selected from the target population.

The main findings are that majority of the students have a positive outlook on vaccines (both mandatory and optional), students would be more prone to get vaccinated when the vaccines are free, and they believe that getting the mandatory vaccines is more important than getting the optional vaccines.

Keywords: Vaccination, Students, Opinions

Introduction

The purpose of the study was to examine the attitudes of young people toward vaccination. The topic of the study was chosen due to its relevance given the anti-vaccine movements taking place since 2017. Societies need to take action against these movements as having more and more people refusing to get the mandatory vaccines will eventually lead to losing herd immunity. More specifically, once the majority of people (80% and more) are vaccinated against a virus, the likelihood of it spreading and affecting the non-vaccinated part of the population is significantly lower, therefore there is a positive spillover effect also for those that didn't get a vaccine.

Unfortunately, many cases of outbreaks of treatable diseases have been reported in developed countries across the world due to people supposedly losing trust in vaccinations and even doctors. For instance, a measles outbreak in France could have been avoided with a higher percentage of vaccinated children (El-Faizy, 2018).

The COVID pandemic surely made such research even more important, as the findings could be useful for making strategies that would popularize vaccination and help stop the spread of different dangerous diseases. Hence, it is highly recommended to continue researching this topic and conduct much broader studies. Unfortunately, due to limitations of accessibility to the whole population, this particular study focuses on the opinions of students enrolled in particular accessible universities.

Methodology and Findings from Exploratory Research

To ensure a deep understanding of the topic, important for the further development of quality research instruments, the initial phase of the research included two types of exploratory research. Namely, the foundations of the overall research are based on the findings from relevant secondary data and in-depth interviews.

Findings from Secondary Sources

Given the relevance of the topic, finding data from research conducted with a similar purpose caused no issues. However, it was important to ensure the dependency of sources due to the numerous conspiracy theories related to vaccination. Therefore, a strict criterion for choosing the sources was introduced, including recency of publication (no more than 3 years), credibility (authored by college professors from higher-ranked universities), and relevance (covering a similar population, more specifically, opinions of mostly students/young adults Europe).

The results from the literature review showed that even though the media is portraying the non-vaccination movement as a huge one, none of the studies found the respondents stating a negative attitude towards mandatory vaccines to be more numerous than the positive ones. These findings were used as benchmarks for the percentages in the hypotheses in the latter stages of the research, especially regarding the expected amount of positive/negative opinions on vaccination and for the identification of variables affecting the opinions that would need to be further researched.

Findings from In-depth Interviews

Enriching the findings with additional views, in-depth interviews were conducted with a couple of students. The questions discussed were mainly about their history with vaccines, possible side effects and their general attitudes toward vaccination. All interviewees had been vaccinated as children, but only a few had additional vaccinations beyond the mandatory ones.

Though the overall attitude toward vaccination was positive, some interviewees from Macedonia had reservations due to a scandal involving expired vaccines being used instead of appropriately disposed of. However, interviewees stated that their closest friends and family members impact their opinions more than the media, and most believe that a negative attitude toward vaccination is a result of ill information or a lack of it. Moreover, some mentioned that they would get vaccinated against HPV if it were free. Hence, price sensitivity was included in the factors relevant for deciding regarding vaccination.

Research Questions and Hypotheses

Aligned with the research problem defined as ‘Attitudes of students toward vaccination’, a research question was phrased as ‘*What has influenced students’ opinions on vaccination*’. Based on that, three research hypotheses were constructed:

- The majority of the students (over 60%) have a positive outlook on vaccines, both mandatory and optional;
- Students would be more inclined to get vaccinated if it was free;
- Students believe that getting the mandatory vaccines is more important than getting the optional vaccines.

Methodology of Descriptive Research

For the descriptive part of the research, the survey method and the questionnaire instrument were chosen as the most appropriate for examining the opinions of a larger number of people. To achieve higher response rates by facilitating the data collection for the respondents, the questionnaire was conducted online and contained questions with standardized answers. Moreover, the lack of a sampling frame made it impossible to conduct probability sampling, therefore a judgement sample counting 109 respondents was used. Regarding their socio-demographic characteristics, the majority were obviously students (at the age between 19 and 25 years), coming from European countries.

Results and Discussion

The data gathered with the questionnaire was analyzed with the help of SPSS.

Starting the discussion with socio-demographic characteristics of respondents, the mode for the question regarding gender was *'female'*. In terms of nationality, the majority of respondents were Macedonian (49%) and Slovenian (38%). Given the deliberate efforts to reach young adults for the research, 88% of respondents chose the 19-25 age category and 73% stated that they are students.

Continuing with the questions in connection to students' opinions on vaccination, 91.7% of respondents declared having received all mandatory vaccines and 95.4% agreed that it should be mandatory to get vaccinated as a child. In terms of non-mandatory vaccines, only 34.9% of respondents stated to have had an additional vaccine, though another 34.9% weren't sure.

Furthermore, based on the exploratory research, respondents were given several options to choose from regarding the reasons to get vaccinated; 78.9% opted for *'to protect myself from potential illnesses'*, 22% chose *'I didn't make the decision myself'*, followed by *'Because my parents/peers persuaded me to do it'* with 20.2%. The rest of the options, *'Because it was free'*, *'Because everybody else was getting vaccinated'* and *'Because I read an article on the positive effects of vaccines'* were chosen by 15.6%, 13.8% and 11% of respondents, respectively. The last option *'Other'* was clicked by 5.5%, but none have stated a reason.

Including a semantic differential with five scales enabled constructing confidence intervals and using the data from the sample to make inferences for the population. From the results, it can be estimated with 95% confidence that students find vaccination to be more positive than negative (average agreement is between 4.13 and 4.52), more beneficial than harmful (average agreement between 3.97 and 4.39), more important than useless (average agreement between 4.22 and 4.61). Since most of the intervals overlap and the true value of the population parameter cannot be located with certainty, the statements cannot be compared and no conclusions regarding which is the highest can be drawn.

Moreover, the results from z-testing for proportions showed that the majority of students (more than 60%) have a positive outlook on vaccines, regardless of whether they are mandatory or optional. As shown in the table, the observed proportion is 90%, while the hypothesized was 60%. The significance level is 0, and because $p < 0.05$, we can reject the null hypothesis while we accept the alternative one.

Table 1

Results from SPSS – z-test for proportions

Binomial Test					
	Category	N	Observed Prop.	Test Prop.	Exact Sig. (1-tailed)
Group 1	2,00	86	,9	,6	,000
Group 2	1,00	15	,1		
Total		101	1,0		

Statistical testing on the data gathered with a five-point Likert scale was examined with a one-sample t-test because the means for parametric data had to be compared to make conclusions regarding the second hypothesis. The results, as shown in table 2, led to the conclusion that students would indeed be more inclined to get vaccinated if it were free.

Table 2

Results from SPSS – one-sample t-test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
I would be more likely to get my (future) children vaccinated if vaccines were free (e.g., meningitis)	27,137	96	,000	3,856	3,57	4,14
A change in price of vaccines would influence my decision to get vaccinated	18,995	91	,000	2,804	2,51	3,10
I have a good understanding of vaccines and their side effects	26,686	90	,000	3,473	3,21	3,73
People who are against vaccination are reasonable	15,010	91	,000	1,891	1,64	2,14

Similarly, the third hypothesis was tested based on data gathered with a five-point Licker scale question and examined with a one-sample t-test.

Table 3

Results from SPSS – one-sample t-test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Getting the mandatory vaccines is more important than getting the flu vaccine	31,729	95	,000	4,052	3,80	4,31
I have read articles on vaccination	27,237	95	,000	3,729	3,46	4,00
My opinion on vaccination is largely based on what I have read on social media	18,055	95	,000	2,167	1,93	2,40

As it can be seen from table 3, the mean difference is 4.052, the significance level is 0, and $p < 0.05$, thus the null hypothesis is rejected, indicating that students believe that getting the mandatory vaccines is more important than getting the optional vaccines, for example, the one against the flu.

Research Limitations

Although done thoroughly, this research has potential limitations. The main limitation is the non-probability sampling technique undermining all the inferences for the population. In order to be able to use the findings as a basis for action, probability sampling techniques should be used. The lack of a sampling frame disabled the calculation of the required sample size, making the sample size arbitrary, therefore a larger sample drawn with other sampling techniques would perhaps better represent the population.

Moreover, due to the choice of survey method, where the distribution of questionnaires was done solely online, there was a very low sample and environmental control, which means that we cannot be sure that the respondents have provided honest answers, nor identify whether they were qualified to be part of the sample.

A future researcher studying the topic of students' attitudes and vaccination may find this study useful in their exploratory research, but they could fill in the gaps of our research by gathering more information to develop a sampling frame, thus determining the sample size and performing the study on a random sample.

Conclusions and Recommendations

Assuming that the sample is representative of the population, the study concludes that 95.4% of people have been vaccinated which would be enough to achieve herd immunity. That means that even if some people don't receive the mandatory vaccines, they would still be protected by the vaccination of others around them. The minimal number of persons needed to be vaccinated to achieve herd immunity is theorized to be around 80% with a slight deviation upwards depending on the virus (Scand J Infect Dis., 2011).

Students would be more inclined to get vaccinated if it was free.

This hypothesis was concluded to be true, therefore countries should try to decrease the price an individual would need to pay in order to get vaccinated through government contributions if vaccination rates fall below the desired per cent.

Students believe that getting the mandatory vaccines is more important than getting the optional vaccines.

Though the deduction that students find mandatory vaccines more important than optional ones was expected and satisfactory, given the assumed higher importance of the compulsory vaccines, this could still be a basis for new research which would thoroughly examine the extent to which non-mandatory vaccines are found important. Based on the discovery that mandatory vaccines are viewed as more important than non-mandatory ones, countries should start stressing the fact that non-mandatory vaccines are also important.

The majority (more than 60%) of the students have a positive outlook on vaccines, both mandatory and optional.

The inference that students do have a positive outlook on vaccines and that the rate of students with a positive outlook on vaccines was made by an even higher percentage than hypothesized (90% of surveyed students have a positive outlook on vaccines, exceeding the hypothesized 60%). This is very encouraging to see since the vaccination rates have fallen lower that suggested by the herd immunity in some countries, such as France (Monique El-Faizy 2018).

The importance of studies on this topic has never been more highlighted given the recent worldwide pandemic. Further research on attitudes regarding vaccines would be useful to get a

better understanding of how to get more people to vaccinate themselves or their close ones so that we can keep our herd immunity and thus protect society from viruses that could be avoided.

Moreover, it would be interesting to additionally study the potential differences in opinions toward vaccination based on socio-demographic characteristics, as such findings would be beneficial for making more efficient and focused strategies for the popularization of vaccination. Likewise, the link between income and the tendency to get vaccinated could be examined, given the conclusion that students would be more inclined to get vaccinated if it was free.

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OPPORTUNITIES FOR VOLUNTEERING EDUCATION AT UNIVERSITY – EMPIRICAL EXPERIENCES FROM AN INTERNATIONAL PROJECT

Abstract: This paper aims to share empirical experiences and results from an international Erasmus KA2 project. The main objective of the project is to increase the social responsiveness of young people by integrating them in pro bono activities in higher education institutions. Pro bono is a voluntary activity that aims at supporting non-profit organizations in need with our professional expertise. The Erasmus project involved Spanish, Portuguese, Bulgarian, French and Hungarian universities, which were supported by intermediaries in the implementation of pro bono activities and campaigns. Three pilot pro bono activities were carried out at our university in the framework of the project. These were projects of varying duration, supporting a programme for the elderly, an organization for disadvantaged children and a foundation working for environmental protection. An important outcome of the international programme was the creation of a guide book containing the steps for implementing pro bono as a subject, in the form of an online course to help universities join the programme. We would like to expand the programme in cooperation with other universities by involving international students and promoting the need and importance of social responsibility as widely as possible.

Keywords: Volunteering, Pro bono, Cooperation, CSR, Generations, Higher education

Introduction

In modern societies, volunteering is a form of civic activity. It can be considered effective when volunteering is organically linked to a local community or a wider area association and is widely represented by a range of organizations (Mirsfian – Mohamadinejan, 2012). The International Labour Organization (ILO) has attempted to summarize the benefits of volunteering in a lengthy study. The ILO mentions that it can not only have economic effects, but can also bring significant benefits to society or to the volunteers themselves. It can provide access to the workforce and a framework for employment. Volunteering can contribute to development goals. It can also result in services in the form of employment that a paid worker would not be able to provide. It also enhances social solidarity, social capital, political legitimacy and quality of life in society. Volunteering can help to promote social inclusion and integration (ILO, 2011).

In addition to the above, volunteering can also bring other benefits. According to a study by Owen and Celik activities such as volunteering can contribute to our mental health, thus strengthening the development of a healthy society (Owen – Celik, 2018). Mundle and co-authors (2012)