

High School Students' Perceptions towards COVID-19 Vaccination: Benefits, Barriers and Influencing Factors

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Abstract:- After the outbreak of the Corona pandemic and its conquest of the world, it became necessary to find a vaccine against the Corona virus in order to break the cycle of its spread, but the acceptance or rejection of the vaccination by the citizens may be affected by the mental and representational maps that have stuck to the epidemic through the emergence of several trends.

Some researchers have observed that the large population has a relatively high reluctance to current vaccinations and that vaccination coverage is not adequate (van Doremalen et al 2020; Harapan et al. 2019).

In Morocco, the elderly have, it seems, readily accepted to participate in the vaccination campaign launched by the government. But what is the attitude of young people towards vaccination against COVID 19?

This study aims to understand the perceptions towards the COVID-19 vaccination and the targeted subject is the high school students (17-18 years old).

The research used five-point Likert scale instruments to examine student's perceptions of the COVID-19 vaccination. The sample for this analysis is N=263 participants.

Through the analysis that targeted the students' answers about the advantages of vaccination, it was found that vaccination against the Corona virus has several advantages for students of the second year of the baccalaureate, as both scientific and literary students acknowledge that it combats the disease, but the percentage of importance varies from scientific to literary.

Statistics from both categories of students indicated that literary people consider the vaccine against the Corona virus to be ineffective, while scientists do not. The results also showed that there are more risks of unwanted negative side effects than benefits.

Statistics have also shown that among the obstacles that would prevent students from getting vaccinated against the virus, in addition to fear of the vaccine, doubt about its safety.

Both science and literary students indicated that the school, the free vaccination, the media, the Internet, and the family are some important factors that may affect students' receipt of the vaccination.

The comparison between the two groups of students showed that there are no significant differences between the students regarding the COVID-19 vaccination process, and from this we can assume that the information obtained by the science students did not affect their perceptions.

Keywords:- Perceptions, Covid-19, Vaccination, High School Students, Morocco.

I. INTRODUCTION

The coronavirus pandemic, also known as the COVID-19 pandemic, is a global pandemic caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) Ngoy, Jean M., et al. (2020), which has dealt a severe blow to the already fragile global economy. While the full extent of the human and economic impacts of the pandemic has become apparent over time, the losses in these two areas are significant and, at the macroeconomic level, make emerging and developing countries vulnerable to economic and financial turmoil. The pandemic has caused severe global social and economic damage, including the largest global economic slowdown since the Great Depression, as well as the postponement or cancellation of sporting and religious events, significant shortages of supplies and equipment exacerbated by panic buying, and school closures at the national and local levels in 190 countries, affecting approximately 73.5% of students worldwide.

After the novel coronavirus SARS-CoV-2 spread across the world and caused more than 6.3 million deaths (according to the website designated by Johns Hopkins University to monitor the number of cases and deaths due to the virus worldwide) in different countries, it became urgent to take action to intensify research and experiments aimed at producing the appropriate vaccine to stop the spread of COVID-19 by increasing the ability of organisms to resist this virus, thereby breaking the cycle of its spread and weakening it.

Vaccination against the coronavirus is considered the most effective way to overcome the negative remnants of the pandemic in terms of economic failures and human losses, as it plays a key role in immunizing citizens (herd immunity) against the virus and thus returning to normal life. Despite its rejection by many citizens, as no vaccine can be ready in one or two years but rather requires a long time of up to 10 years or more, its use has shown positive results, both in human and economic terms.

The aim of our study is to identify the position of second-year high school students regarding vaccination against the coronavirus by comparing students in the humanities and sciences.

➤ *Problem Statement*

After the outbreak of the Corona pandemic and its global spread, it became necessary to find an effective vaccine to break the cycle of its transmission. However, citizens' acceptance or rejection of the vaccination may be influenced by mental and representational frameworks shaped by the emergence of various perspectives during the epidemic. Based on observations by sociologists, four major trends have emerged in response to the pandemic.

The first trend is rooted in myth and superstition, with some recent myths circulating that the epidemic is a consequence of divine wrath against humanity or that the world is witnessing its impending demise, with the Day of Judgment approaching. This perspective doesn't just stay within the realm of thought but influences people's behavior towards the epidemic, leading some to disregard medical (mask-wearing, use of disinfectants, vaccination) and governmental (quarantine, social distancing) guidelines.

The second trend attributes the epidemic to conspiracy theories, particularly the idea of biological warfare between the United States, China, and other aligned countries. This viewpoint, similar to the first, suggests that the epidemic is nothing more than a biological creation. This belief partially illustrates how conspiracy theories can infiltrate people's imaginations, leading them to refuse to take the epidemic seriously.

The third approach is grounded in what doctors, scientists, health experts, and organizations like the World Health Organization (WHO) say. This perspective has managed to gain the attention of a significant number of people and countries, influencing their behavior towards the epidemic by encouraging adherence to medical (mask-wearing, use of disinfectants, vaccination) and governmental guidelines.

Finally, the fourth trend relies on religious beliefs, attempting to interpret the epidemic by providing it with a religious explanation. Historically, during times of epidemics, famines, and wars, religion has been linked in the societal imagination to the concept of existential security, where in times of crisis, people turn to religion for refuge and justification. Consequently, statements like "fasting eliminates the epidemic" or "prayer eliminates the epidemic"

began to circulate, accompanied by fears leading to phobias. The representational dimension of the epidemic, intertwined with superstition and misguided religious beliefs, poses a source of concern as it hinders the progress of measures taken to combat the epidemic and the acceptance of the vaccination process.

When we project these data onto a segment of society represented by students, several questions arise that we aim to address in this research:

- To what extent are students (the research sample) willing to receive vaccination doses due to their benefits?
- Can a lack of information truly be considered an obstacle to vaccination against the coronavirus?
- What factors might influence students (the research sample) to accept vaccination against the coronavirus?

II. METHODOLOGY

Since the aim of this research is to gather information on the COVID-19 vaccination process from the perspective of students, this study is descriptive in nature. We employed the descriptive-analytical method to understand each student's opinion. This method relies on description, analysis, and interpretation, allowing us to identify the perceived benefits of vaccination according to students, as well as the obstacles and factors influencing their acceptance of the COVID-19 vaccine.

➤ *Research Sample*

The selection of a research sample is a technique designed to gather information and data by representing the whole through a part. Our research sample consists of 263 second-year high school students, with 131 students from the sciences and 132 from the humanities, distributed across three qualifying public high schools geographically located in the city of Marrakech and the province of Azilal.

➤ *Research Tool*

Any researcher aiming to complete a scientific study must rely on one of the commonly used scientific tools for data collection, which enables them to achieve results characterized by a degree of scientific objectivity. These tools include questionnaires, observation, thematic analysis, etc. The choice of one tool over another may depend on the nature of the subject and the tool's effectiveness in obtaining the desired results. We selected the questionnaire due to the specific nature of the research topic, particularly related to the type of sample selected, "high school baccalaureate students."

As for the questionnaire's questions, we formulated them with consideration of their effectiveness in addressing the research problems and their adaptation to the relevant environment and context. The questionnaire consists of three main sections: benefits, obstacles, and influencing factors of vaccination. Each section includes a set of closed-ended questions presented as suggestions, where the students evaluate each suggestion based on its importance using a five-point Likert scale by checking the box corresponding to each number (1: least important, 2: somewhat important, 3: neutral, 4: important, 5: most important).

➤ *Data Analysis Tool*

When collecting information and data related to scientific research methods, tools are needed to assist in the process of classification, analysis, and ultimately reaching explanatory results for the research hypotheses presented by the scientific researcher. The statistical software SPSS 22 is one of the most important tools used in this field. It allows for obtaining objective and more accurate results, as the program describes the variables and generalizes the results obtained from the research sample.

III. RESULTS AND DISCUSSION

➤ *Benefits of Vaccination*

Through the analysis of students' responses regarding the benefits of vaccination, we found that COVID-19 vaccination offers several advantages for second-year high school students. Both science and humanities students acknowledge that vaccination combats the disease, but the perceived importance of this benefit varies between the two groups. This difference is likely due to science students having studied the principles of vaccination, its mechanisms, and its role in disease prevention. As for other variables, such as the prevention of disease emergence, protection of the unvaccinated, improvement of health, an act of solidarity, safe usage, and reducing the spread of the epidemic, there are no significant differences between the two groups of students.

➤ *Obstacles*

The results indicated that humanities students consider the COVID-19 vaccine to be ineffective, in contrast to students studying science. This can be explained by the relevance of scientific training, which promotes the development of critical thinking, rationality, and openness to science, thereby fostering trust in the effectiveness of scientific results and the work of scientists.

Additionally, the results showed that among the obstacles preventing students from both groups from getting vaccinated are concerns about potential negative side effects, along with fear of the vaccine and doubts about its safety. This consensus of opinions among students can be attributed to the shared environment in which they live, where similar news—whether false or true—spreads.

The analysis also indicated that science students are hesitant to get vaccinated against COVID-19, possibly due to a lack of information. These students understand that developing a vaccine typically requires several years, yet the COVID-19 vaccine was developed rapidly, within a year. This rapid development has become a barrier to accepting vaccination.

➤ *Influencing Factors*

The results showed that one of the influencing factors for getting vaccinated is the school itself. Schools, through counseling and scientific documentation on the latest developments in vaccine efficacy displayed on bulletin boards, as well as the significant role played by teachers in raising awareness about the dangers of the virus, are considered the most important influences on both science and humanities students.

The availability of the vaccine free of charge is another influencing factor. Media and communication are considered by a minority of students to play a major role in promoting the idea of vaccination against COVID-19. The family is also an important factor, deeply affecting the recipient's decision and its significant role in returning to normal life after vaccination.

Furthermore, concerns about undesirable side effects that cannot be overcome from the students' perspective, whether due to health fears or fears of worsening conditions, along with peer enthusiasm, highlight that students realize the dangers of blindly following others without considering the pros and cons. This suggests that the decision to get vaccinated depends less on the individual's own decision and more on the influence of others.

IV. CONCLUSION

The COVID-19 virus was a global problem that affected the entire world, driving the urgent need to find a vaccine to eliminate the virus and reduce its negative impacts, both human and economic. Once the vaccine became available in the country, it became a topic of discussion across all sectors of society, with debates on its effectiveness and safety.

We conclude that vaccination against COVID-19 is both a point of consensus and disagreement among second-year high school students, with differing opinions on its benefits, the obstacles preventing them from getting vaccinated, and the factors that influence their thinking and willingness to receive vaccine doses. These results could be generalized to the wider population, as the research sample (second-year high school students) reflects the broader societal and social media discussions, many of which lack credibility.

Through this study, particularly the comparative analysis between students in the humanities and sciences, we found no significant differences in attitudes towards the COVID-19 vaccination process. This suggests that the information obtained by students did not significantly influence their attitudes.

Based on our findings, we propose several solutions to change students' thoughts, beliefs, and behaviors regarding the vaccination process:

- ****Information is important****, but to change students' behavior and develop positive attitudes, health education is necessary. Health education is a branch of comprehensive education aimed at providing individuals with the necessary health facts and experiences to positively influence their behavior, attitudes, and habits, ultimately contributing to higher health standards and protection from diseases and health problems. The primary goals of health education are:
- Providing individuals with appropriate and effective health knowledge that leads to the formation of healthy attitudes and habits.
- Contributing to the mental, physical, and social development of students, recognizing that a healthy mind resides in a healthy body.
- Raising the level of health education among students to familiarize them with proper healthy behaviors.
- ****Utilizing media and communication**** to clarify the positive aspects of COVID-19 vaccination.
- ****Inviting health professionals**** to schools to explain the benefits of vaccination and its effectiveness in protecting against diseases.

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