

Review Article

Literature Review on Factors Influencing Negative Attitude of Students on Covid-19 Vaccines in Uganda

Niyitegeka Josue¹ and Michael B. Welwel²

Public Health Department, Bugema University, Uganda.
Corresponding Author Email: josueniyi@gmail.com

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Abstract: Background and aims: Since 2019 Covid-19 disease is still a challenge with its high speed of spreading which scares everyone all over the world. As other disease of the same category, vaccine happened to be the only solution of this virus. Many countries are still looking for the solution by looking for enough vaccines to help their people. Though the intervention and strategies of eliminating the virus is high, the rates of people willing to take vaccines are still low in African countries; even the individuals chosen by government to be at high risk are still doubting the vaccines. This review was done with purpose of finding out the factors influencing students' negative attitudes towards Covid-19 vaccines in Uganda.

Methods: A literature search was performed on PubMed, ScienceDirect, PMC, MedRxiv, SAGE Journal and Google Scholar, and from above 10,000 top cited articles, 16 were selected for the current study.

Results: Most of related review of previous studies on Factors influencing negative attitude of students on Covid-19 vaccines found that a variety of different factors contributed to increased negative attitudes, including the following: having negative perception of vaccine efficacy especially some students whom with their parents do not have enough information about vaccines and those who had blood clots from the first vaccines of AstraZeneca and Johnson & Johnson, other refused by their parents or guardians with no clear reasons, safety of the vaccines, some staff's influence to their relative students, and fear of suitability of vaccines with their body, other claims that they do not need vaccines because their body immunity is strong through using herbals recommended, and others relate the vaccines to their personal religion belief. Government should establish seminars and training emphasizing the use and benefits of this vaccines and give more information about it.

Conclusions: Among the factors observed in this study were, fear from those who died after people get first vaccines, lack of enough information, influence from parents/guardians, influence from those who receive first vaccine and got challenges, negative information about vaccines (causing blood clots). Use of recommended vaccines is very important as health of many people is concerned, but people need more knowledge about these vaccines and those delivering these vaccines also need more skills about this to assist those they attend to and have one language.

Keywords: Student's attitude, COVID-19, Vaccine, knowledge, negative attitudes.

I. Introduction and Background

Education of young generation is one of the great achievements toward success of the country. Since 2019 when Covid-19 was introduced, education is one of the departments which affected much apart from economic of the country worldwide especially in developing countries (Sadaqat, *et al.*, 2021). While every country is now fighting to turn everything into normal, there is still challenges; on top of that, impact of Covid-19 is huge to recover the loss. Covid-19 vaccine is one of the solutions which observed to overcome the problem of Covid-19 pandemic and as government is trying to gather

enough vaccines some individuals do not want to receive vaccines (Mustapha, 2021). Although scientific reports saying that there is no indication of bad effects following vaccination, the people are still worried. There is a divide between scientific evidence and vaccine safety knowledge (Bai *et al.*, 2021).

Negative attitudes about vaccines, as well as fear or refusal to undergo vaccinations, are important roadblocks to effectively accomplish the COVID-19 pandemic in the long run (Qiao *et al.*, 2020). In University students, evaluation determinants were done on domain factors of unfavourable vaccine attitudes and identifying those most at risk of misunderstanding and unwillingness to receive a COVID-19 vaccine, the findings shows that they were not having enough information and fear to take vaccine at first but willing to take it after seeing health status of those vaccinated in long run (Zaidi *et al.*, 2021).

Many governments have boosted vaccine research and launched COVID-19 vaccination programs; as from January 2021, there have been more than 170 vaccines in preclinical development and more than 60 vaccines in clinical testing (Kateeb *et al.*, 2021). Despite the fact that vaccine research has advanced at an incredible rate, public acceptance of COVID-19 vaccines and negative perceptions regarding them remain important obstacles. Acceptance of a COVID-19 vaccine is acknowledged as a critical factor in determining the effectiveness of a vaccination program (Grech and Gauci, 2020).

Many vaccines candidates have been produced, some of which have been approved and others are currently in clinical studies. Despite significant progress in vaccine development, public acceptance of COVID-19 vaccination remains an important challenge. According to the World Health Organization, vaccine hesitancy is among the top ten threats to global health, and this is exacerbated by emerging fake news stories surrounding COVID-19 and its vaccines (Bou Hamdan, 2021).

Interestingly, despite self-perception of increased risk of SARS-CoV-2 infection, over a quarter of medical students in the United States were unwilling to be vaccinated as fast as an approved COVID-19 vaccine became available (Dziedzic *et al.*, 2021).

II. Methodology

A complete literature search was conducted on 5 databases as indicated in the table below, to identify relevant studies. The search was limited to identify only studies published since the year 2020 and it was restricted on this year because it is after the provision of vaccines was introduced.

The method for choosing the literatures included in this current review started with a search in the databases Google Scholar, ScienceDirect, PMC, PubMed and SAGE Journals. The publication whose studies include terms “students’ attitudes (negative or hesitancy) towards Covid 19-Vaccines, Factors influencing students’ refusal of covid vaccines, and factors affecting students’ negative attitudes on Covid-19 vaccines” were chosen. Online search library was used to locate relevant databases for the search and the databases identified are presented in the table below.

Table 1. Preliminary literature search database results

Database	Total number of results	Peer-reviewed papers	Included for literature review
Google Scholar	70,700	11,100	6
ScienceDirect	265	39	2
PMC	326	107	3
medRxiv	3568	443	2
PubMed	2	1	1
SAGE Journals	293	12	2
Total	75,154	11,702	16

A total number of searched related articles were 75,154. From all databases, out of 75,154 of all related articles 11,702 were reviewed and 16 was taken as references of the current study.

III. Results

These findings are based on the review outcome of the existing studies published in the area of Factors influencing negative attitude of students on Covid-19 vaccines. In most studies show above 50 % of willingness to take vaccines (Cai *et al.*, 2021).

As many countries resume their daily activities as they are getting more vaccines, most of the countries such as Uganda chose to start vaccination with specific individuals such as elderly people, teachers, students, health workers etc (Kanyike, 2021).

While most studies reviewed for this study addressed the personal attitudes in decision making against Covid-19 vaccines, others show guardians or parents as their influences. There is also force of influence in those who received first vaccines and whom their body did not correspond well and refused totally to receive the second vaccine. As public health is concerned, some Governments such as Nigeria have started suggesting taking vaccination from personal wish to compulsory acts (Osodi, 2021), which is not good one way but also better for lives of many. Though the number of students refusing to be vaccinated are not much compare to the willing, it is a serious challenge as program of eliminating Covid-19 is concerned.

Students' negative responses on Covid vaccines

Among the studies conducted on the related topic 'Factors influencing negative attitude of students on Covid-19 vaccines' the majority above 60 percent of those having negative attitudes, the review shows their hesitation coming from their parents or guardians who does not want to be vaccinated, and above 10 percent have thought that covid vaccines are not trustworthy due to rushing to be announced. Above 5 percent have their personal interest saying that they are not mice to be applied on as experiment. Means they have hope but after seeing how effective vaccines are after one year or two years. The other above 15% of students have personal fear due to their body weaknesses and in some states where is now compulsory they fear and they are connecting it to what they call bible prophesy as mark of the beast 666 (Padilla and Hurst, 2021).

As reported by (Bongomin, 2021) in recent research done over 600 people, especially medical students in Uganda, only 37.3% were the one willing to receive vaccines. These was after the report of incidence of blood clots in AstraZeneca and Johnson & Johnson vaccines. This shows that there is a need of more information about Covid-19 vaccines. Since some of Bugema university staffs started dying of Covid-19 even after getting the first vaccines, student have developed fear in Covid-19 vaccines relating those death with vaccines as other countries report and recommend to be keen on expired vaccines.

According to Kanyike, (2019); above 60% of the participants in his study had not received any vaccine in the past 5 years. And more than a quarter of the respondents said that they are not sure about the safety or side effects of the vaccines this was they excuses of their negative attitudes on Covid-19 vaccines.

IV. Discussion

Negative attitudes on coronavirus vaccines are among the top 10 challenge WHO has to control in preventing this disease (Bou Hamdan, 2021). It has been observed that negative attitudes towards Covid-19 vaccines is connected to ideological beliefs. University students are main part of the society and essential in decision making about vaccines. Throughout the time spent at the university is where most young adults develop self-control and accountable for their own health decision-making. Students at university are also leaders and play a big role in scattering encouraging or discourage facts about vaccines and also influence the future generations (Cai *et al.*, 2021).

The identification of factors influencing university willingness or their negative attitudes is an important to be done so that the barriers are removed or get solution so that we conquer Covid-19 spreading and notifying these factors may develop effective health communication strategies to increase the rate of Vaccination (Kanyike, 2021).

University medical students have an impact to influence the community in any strategy of program implementations as health promotion is concerned. A survey taken at national level in India from medical learners on Covid-19 vaccine hesitancy show that more than 10 percent of participants refused it due to their believe of efficacy and safety of vaccine (Jain *et al.*, 2021). Rare studies reported acceptability of Coronavirus vaccines among university students worldwide as reported by Bou Hamdan (2021).

Through this study, it was noted that negative attitudes of high rate of students was related to their guardians or parents' beliefs, lack of enough information and lower rate show that their negative attitude comes from their personal choice, lack of confidence and other was relating it to religion beliefs as is shown in the results.

Conclusion

Researchers show that Vaccines is the only way to finish Covid-19 disease, it is also observed in different review that people do not have enough information about vaccines (Rosental, 2021). Government is required to open up its strategies and campaigns of educating people the ways and benefits of Covid-19 vaccines.

There should be government program through universities to establish seminars of teaching and giving more information about vaccines and remove fear on those students who have personal belief or those who lean on their parents/guardians' influence.

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