

FACTORS CONTRIBUTING TO LOW RESPONSE TOWARDS COVID-19 VACCINATION AMONG RESIDENTS OF ACOO VILLAGE, KOLE DISTRICT. A CROSS-SECTIONAL DESCRIPTIVE STUDY.

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Abstract

Background:

The main purpose of the study was to determine the factors contributing to low response towards covid-19 vaccination among residents of Acoo village, Kole district.

Methodology:

A cross-sectional descriptive study was carried out from December 2022 to March 2023 where a quantitative survey method was used to collect data from A total of 50 respondents were interviewed using questionnaires. The researcher used random sampling techniques to select the respondents for the study.

Results:

The study revealed that 60% had stopped in primary, therefore they lacked knowledge on COVID-19 as well as vaccine uptake. Fear of the side and adverse effects of covid-19 vaccine led to low vaccine uptake because 95% of respondents hesitated to vaccine uptake because of the side and adverse effects of the vaccine.

Low vaccine availability and distribution also contributed to an increase in low covid-19 vaccine uptake, accounting for about 55% of the respondents not being vaccinated.

Worst of all, 37.5(75%) of respondents said there was no sensitization about covid-19 vaccine by health workers, therefore leading to insufficient information among residents on covid-19 vaccine hence low uptake of the vaccine.

Conclusion.

There was a high prevalence of increased covid-19 vaccine hesitancy at 93.3%, and a negative attitude towards covid-19 vaccine uptake was at 63.3%. These were a result of fear of covid-19 vaccine side and adverse effects, Low vaccine availability and distribution, Low level of education, and finally lack of sensitization about covid-19 vaccine.

Recommendation;

There should be a strengthening of rules and regulations governing vaccine uptake and continuous health education on covid-19 vaccine hesitancy and its complications. Proper planning on the improvement of continuous distribution and availability of the vaccine at the health facility should be emphasized. Sensitization of residents on covid-19 vaccine should be done to improve vaccine uptake.

Keywords: Covid 19, covid 19 vaccines, hesitancy to vaccines, vaccine side effects, Submitted: 2023-07-06 Accepted: 2023-07-22

1. Background of the study.

Covid-19 (coronavirus disease 2019) was a disease caused by a novel coronavirus virus named SARS-COV-2 and was discovered in December 2019 in Wuhan, China. Covid-19 was associated with signs and symptoms which included; fever, cough, shortness of breath, fatigue, headache, sore throat, muscle or body aches, and loss of taste and smell (CDC, 2022).

Covid-19 caused a decline in the economy and social life of people all over the world where the majority of the people lost their lives. Therefore, to overcome this pandemic, World Health Organization (WHO) recognizes the use of different vaccines such as Pfizer-BioNTech, Oxford-Astrazeneca, Sinopharm BIBP, Moderna, Janssen, Coronavac, covaxin, Novavax, and Covidecia. However, there has been a low response of people toward the uptake of these vaccines (WHO, 2022).

According to the global report, as of 26th October 2021, over 244 million people were infected by the virus and covid-19 pandemic caused 4.95 million death globally. Africa alone registered an estimated 8.5 million covid-19 infections and over 217000 death (Gizachew A Tessema, 2021). Following the wide spread of covid-19 all over the world, vaccines were introduced though there was increased vaccine hesitancy globally. The prevalence of vaccine hesitancy was 40.2% while

22% of the respondents were vaccine deniers (Kenneth Grace Mascarenhas Danabal, 2021). Another study conducted in South Africa showed that out of 395 participants, 64% were women, 49% were nurses and 13% were physicians. Of these, 233(59.0%) would accept and 163(41.0%) were vaccine-hesitant (Charles Shey Wiysonge, 2022).

According to the retrospective study conducted among residents of Northern California, of 2564 jails, 1441(56.2%) accepted one dose. Among vaccinated residents, 497(34.5%) had initially refused (Yiran E. Liu, 2022).

According to the report from the WHO, Uganda from 31 January 2020 to 21 September 2022, there have been 169051 confirmed cases of covid-19 with 3630 death cases (WHO, 2022). A cross-sectional study conducted on a total of 1042 adults showed that in the districts of Mukono, Kiboga, Kumi, Soroti, Gulu, Amuru, Mbarara, and Sheema from June to November 2021 showed the overall covid-19 vaccine hesitancy was 58.6% (611). Respondents from urban areas and those in the eastern or northern had increased odds of vaccine hesitancy (Kabagenyi A, 2022).

In the northern part of Uganda especially in the Kole district, Acoo Village, there was a high level of covid-19 confirmed cases with approximately 96 reported death cases registered. However, in a cross-sectional study done, about 58.6% of people in the population hesitated the vaccine uptake (Kabagenyi A, 2022).

The CDC recommended packages of preventive strategies to reduce mortality and morbidity associated with covid-19. The core preventive measures were hand washing and improving ventilation, (CDC, 2022); the MOH of health also recommended the use of face masks, use of covid-19 vaccines. These would enable the capping down of the death rates. Therefore, this study was conducted to identify major reasons for vaccine hesitancy and to enable health workers to sensitize the population to reduce vaccine hesitancy as well as death rate as a result of covid-19 disease and also identifying factors that have contributed to low response towards covid-19 vaccination among residents of Acoo village, Kole District.

2. METHODOLOGY

2.1. Study design

This was an exploratory descriptive cross-sectional study employing quantitative data collection methods. This design was selected because it eased data collection and analysis of the required data for the study to produce comprehensive results within the limited time and resources.

2.2. Study area

The study was conducted in Acoo village, Kole district Lango -Sub-region from December 2022 to

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March 2023. The town is approximately 21.5 kilometers (13.4 mi), by road, west of Kole, where the district headquarters is located. This is approximately 68 kilometers (42 mi), by road, west of Lira, the nearest large Town. The coordinates of the town are 2014'47.0" N, 32019'52.0" E (Latitude: 2.246402; Longitude 32.331120).

Kole lies at the junction of three Ugandan roads in Uganda. Yam Road, Gulu Road, and Lira Road, with all meeting in the center of the town. The average elevation of the town is approximately 1,057 meters (3,468 ft) above sea level.

The population of Acoo village is currently about 100 and the population depends much on agriculture. The main food crops and cash crops were cassava, maize, millet, beans, simsim, soya beans, groundnuts, sunflower, peas, and cotton. The language spoken there is Lango Language. The study area was selected by the researcher because of its easy accessibility and familiarity with the language.

2.3. Study population

This study targeted adults (18 years and above), male and female, this was because these people can make their own decision and judgment according to the situation without influence. Furthermore, they would be able to decide on the covid-19 vaccine uptake or not.

2.4. Sample Size determination

The study comprised a sample size of 50 respondents, including male and female adults (18 and above) within Acoo village, Kole district. It was a retrospective method of sample size determination. The sample size was determined using the formula for simple random sampling using a single proportion given by Kish and Leslie's formula of 1967. By assuming that 50% of the respondents hesitated to take the vaccine.

The equation of Kish and Leslie formula is = $(Z^2pq)/2$

Where: n = sample size

z = value corresponding to 95% level of significance = 1.96,

P = expected proportion of population hesitating on COVID-19 vaccine uptake $50\% = 0.5 = p$, $q = 1 - p = (-0.5) = 0.5$, d = absolute precision $5\% = 0.05$

Since the sample size is less than 100 respondents, $nf = n/N$, $nf = (384/1 + 384/40)$

$nf = 50$ respondents

Where nf is the sample size of respondents, in a population of 100

The sample consisted of 50 respondents hesitating to take the vaccine.

The sample will be obtained from different kinds of individuals in Acoo village but from the age of 18 and above.

2.5. Sampling technique

The researcher used the simple random technique to choose respondents to participate in the study. This technique was selected because all individuals had equal chances to participate in the study and the technique was easy to apply.

2.6. Sampling procedure

The researcher used a random sampling technique to select the respondents for the study. This was done by giving numbers 1, 2, 3, 4, 5, 6, 7, 8... to individuals and each individual would pick

numbers at random. Therefore, the researcher would then take individuals who choose even numbers. For example (2, 4, 6, 8...) were requested to participate in the study. This was repeated till the trials reached the recommended number of 50 respondents.

2.7. Data Collection Method

The researcher used open and closed-ended questionnaires printed in English where the researcher would read and interpret to the respondents to cater to both illiterate and literate respondents. The respondent would be in a position to answer the questions in questionnaires and elaborate more on them.

2.8. Data Collection tool

A well-self-organized questionnaire with both open and close-ended questions prepared in the English Language by the researcher would be used to collect data from respondents after giving them

clear instructions with the help of a research assistant.

2.9. Data collection procedure

Before respondents were approached and data collected from them, the researcher got an introductory letter from the Kampala School of Health Sciences which was presented to the office of the local council one of Acoo village, Kole district who gave ago ahead in data collection.

2.10. Study variables

2.10.1. Dependent variables

The low response towards covid-19 vaccine among residents.

2.10.2. Independent Variables

Individual, Community, and health facility-related factors have contributed to low response toward covid-19 vaccine.

2.11. Quality control

The filled questionnaires were checked for completeness at the interview site before respondents leave the place. Partly filled questionnaires were handed back to the respective respondents for completion before being resubmitted to the supervisor.

2.11.1. Pre-Testing

A pilot questionnaire was administered before the main study to a group of 10 people respondents with similar dynamics as the final respondents selected on convenience, to correct the questionnaire and eliminate potential problems. Respondents used in the pilot study were not included in the final study. Once the researcher is satisfied with the results, the tool was ready for use in the final study.

2.12. Inclusion Criteria

The study included males and females who were residents of Acoo village and were available during the data collection period and also willing to voluntarily consent to participate in the study.

2.13. Exclusion Criteria

The study excluded all those who have paid a visit to relatives in Acoo village and also those who refuse to consent to participate in the study.

2.14. Data Analysis and Presentation

Data was first managed manually by use of paper, and pens, tallying all variables according to their response, there after the researcher analyzed them statistically on the computer and then presented them in the form of text, tables, graphs, and pie charts generated by Microsoft Excel programmer.

2.15. Ethical consideration

A letter of introduction was obtained from Kampala School of health sciences introducing the researcher to the administration of Acoo village in Kole district, seeking permission to carry out the study. After permission was granted, the researcher was introduced to the local council one who then moved with the researcher to the field and introduced the researcher to the respondents. Respondents were assured of maximum confidentiality and only numbers instead of names were used to identify respondents. The study only commenced after the objectives of the study were explained to the participants and they consented to participate in the study.

3. PRESENTATION OF RESULTS

3.1. Demographic characteristics of the respondents.

From table 1, it was observed that;

- More than half of respondents 28 (56%) were aged 25-34 years of age while 2 (4%) were aged 35-39 years.
- Two-thirds of the respondents 33.5 (67%) were females while 16.5 (33%) were males.
- Less than two-thirds of the respondents 22 (44%) were currently married while 10 (20%) were currently unmarried.
- More than half of the respondents 30 (60%) had stopped at the primary level while 5 (10%) had attended the Tertiary level of education.

Table 1: **Showing distribution of respondents according to age.** (n=50)

Variable	Frequency	Percentage
Age		
18-24	15	30
25-34	28	56
35-39	2	4
40 and above	5	10
Total	50	100
Sex		
Male	16.5	33
Female	33.5	67
Total	50	100
Marital status		
Single	10	20
Married	22	44
Divorced	9	18
Widow	5	10
Cohabiting	4	8
Total	50	100
Level of Education		
Tertiary	5	10
Secondary	8	16
Primary	30	60
No education	7	14
Total	50	100
Occupation		
Peasant farmer	29	58
Business	10	20
Employed	6	12
Unemployed	5	10
Total	50	100

• More than half of the respondents 29 (58%) were peasant farmers while 6 (12%) were Employed.

3.2. Individual Factors contributing to low response towards covid-19 vaccine uptake

Few respondents 5 (10%) had suffered from covid-19 while majority 45 (90%) didn't suffer from covid-19 in past one month prior to data collection.

From figure 2, mcovid-19 disease and only minority of respondents 18.5(37%) were vaccinated.

The study found out that most of the respondent 41 (82%) experienced the side and adverse effects of the vaccine and few of the respondents 9(18%) didn't.

From figure 4, more than half of respondents 32.5 (65%) received the vaccine only once and 9 (18%) of the respondents received the vaccine thrice.

More than half of the respondents 23 (46%) received the vaccine from the referral hospital and very few 7(14%) respondents received the vaccine from Health center II

Majority of the respondents 42.5 (85%) were

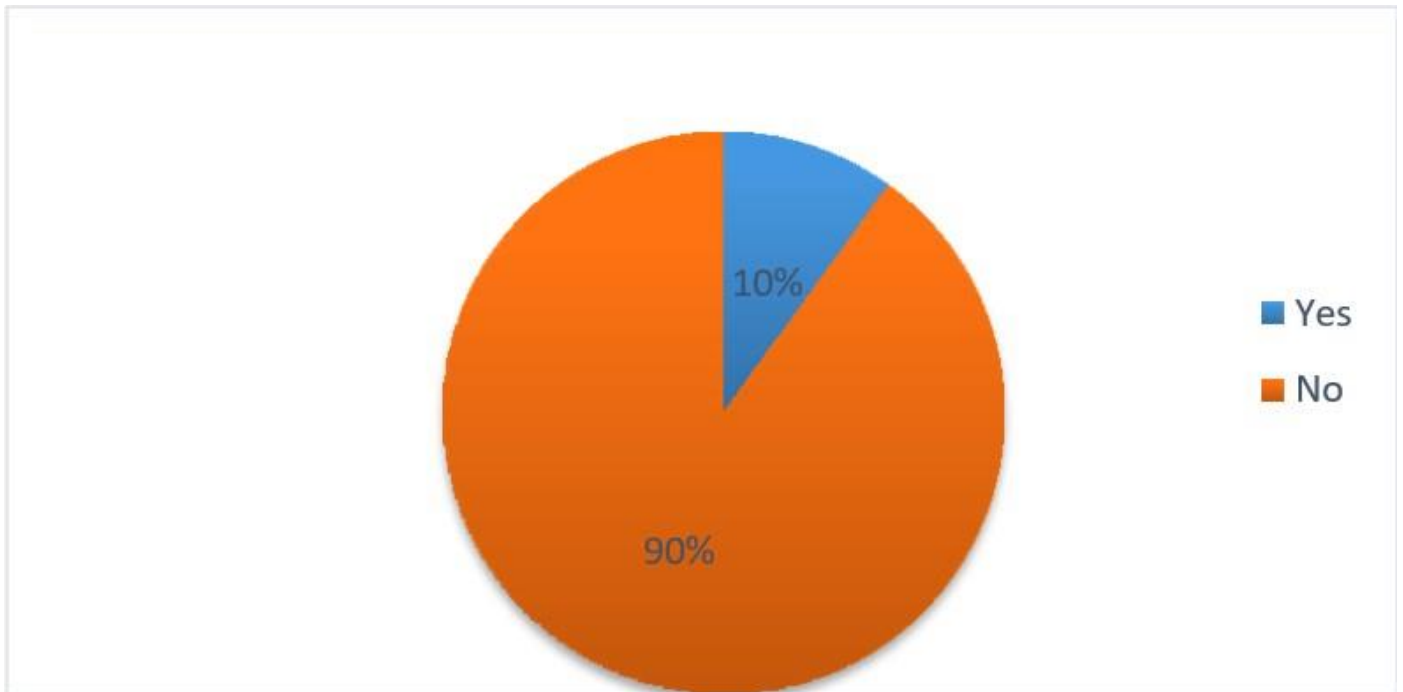


Figure 1: A pie chart showing response if anyone ever suffered from covid-19 in your family

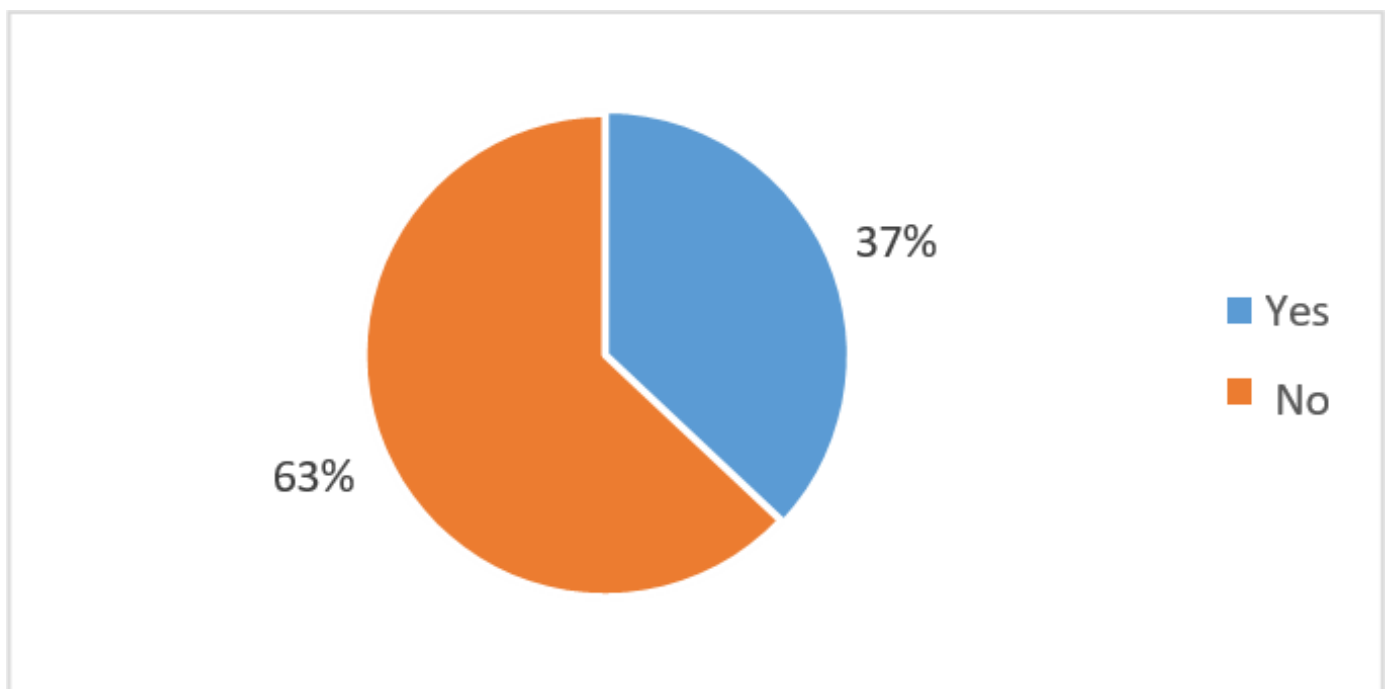


Figure 2: A pie chart showing distribution of respondents according to if anyone has ever been vaccinated against covid-19 disease (n=50)

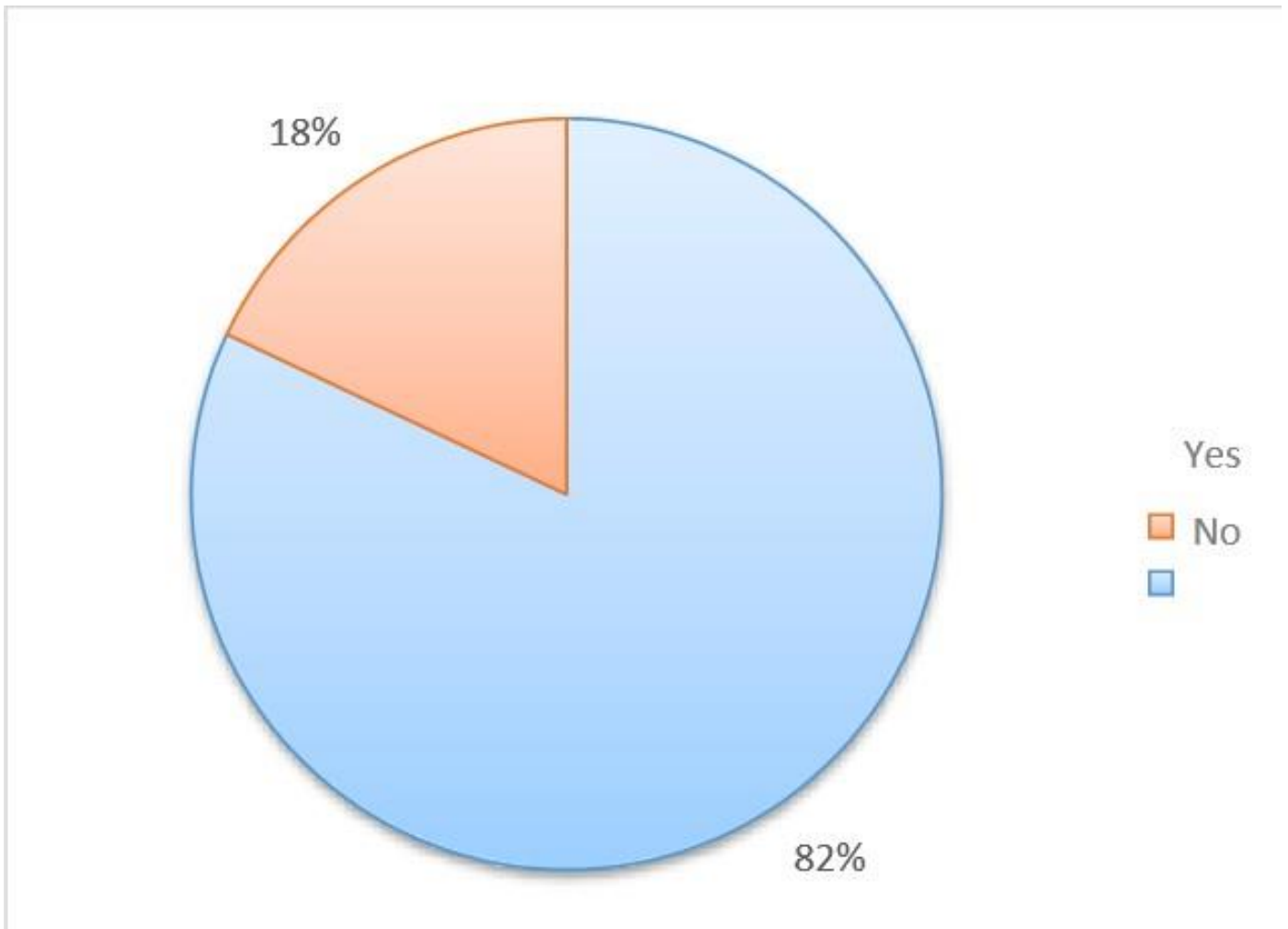


Figure 3: Pie chart showing distribution of respondents according to if anyone has experienced any side or adverse effects of the COVID-19 vaccine.

Table 2: Showing distribution of respondents according to where they have received COVID-19 vaccine from.

Health facility	Frequency (f)	Percentage (%)
Referral hospital	23	46
Health center IV	11	22
Health center III	19	38
Health center II	7	14
Total	50	100

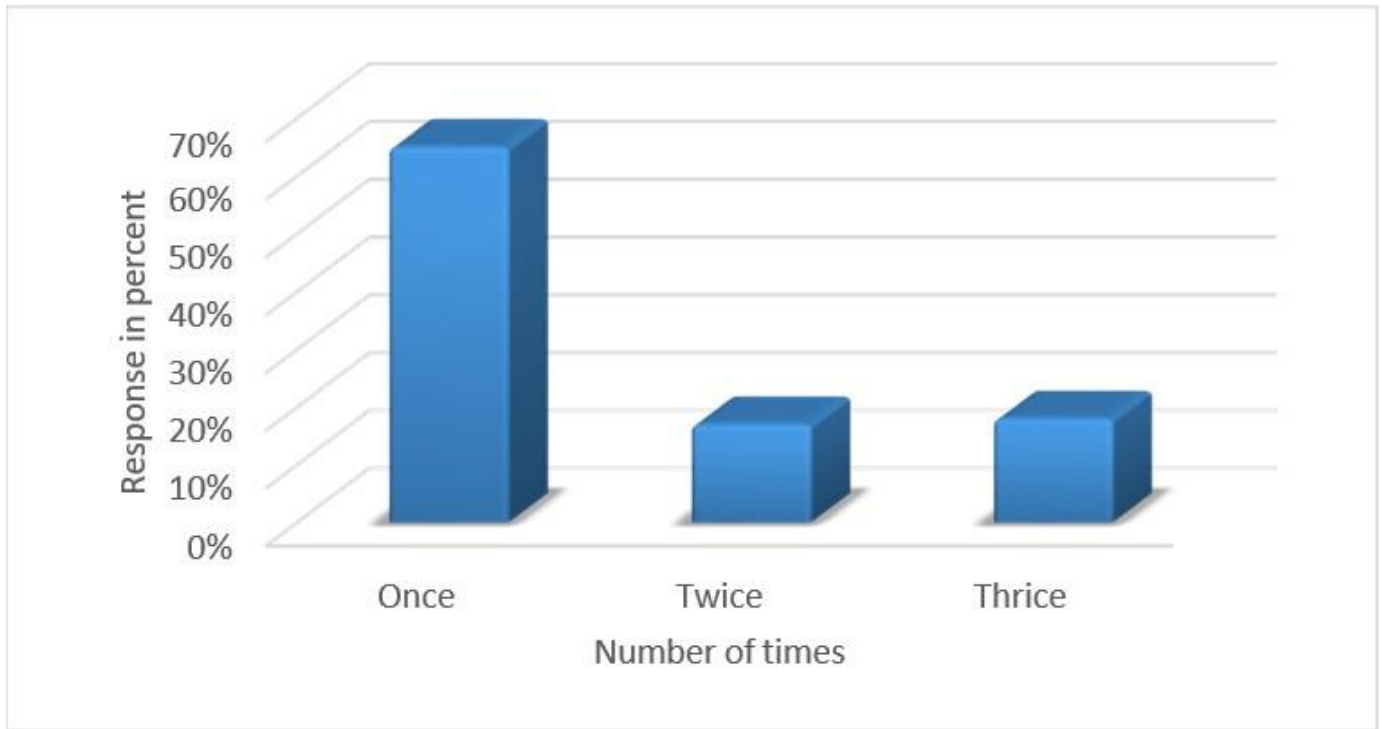


Figure 4: A bar graph showing distribution of respondents according to number of times they have ever received covid-19 vaccine.

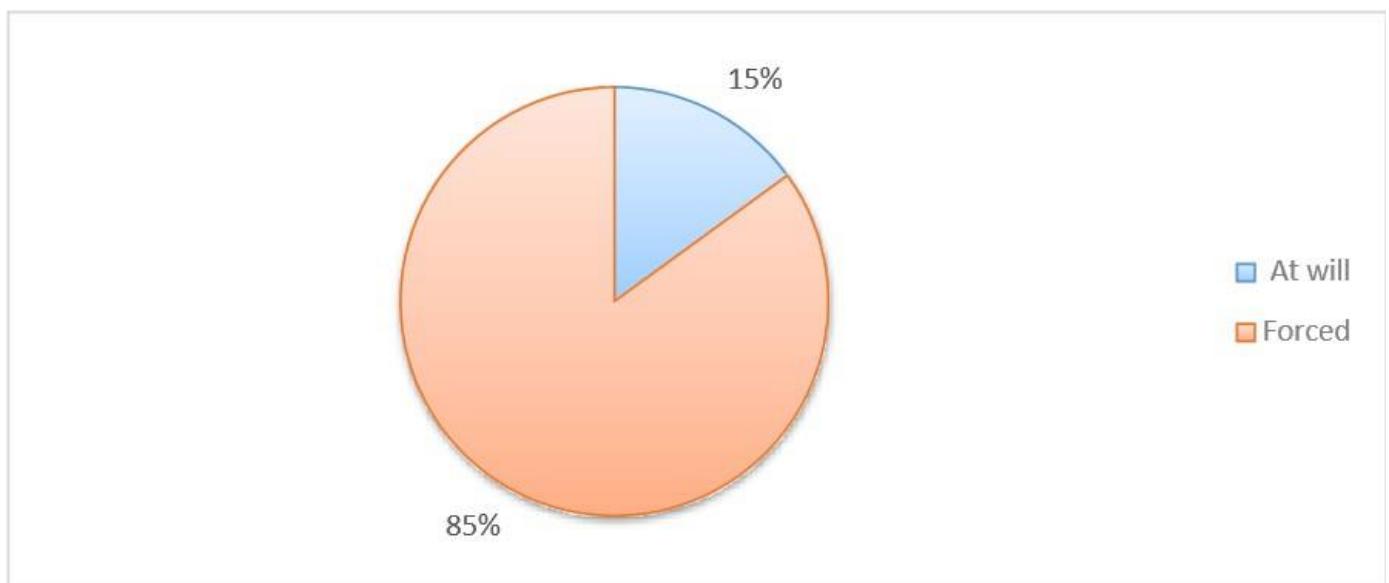


Figure 5: A pie chart showing distribution of the respondents according to how they took the covid-19 vaccine.

vaccinated unwillingly and about 7.5 (15%) were vaccinated at will.

3.3. Community factors which has contributed to low response towards covid-19 vaccine uptake.

From figure 6, more than half of the respondents 37.5(75%) responded that health workers do not go to their areas for sensitization but few of respondents 12.5(25%) responded that health workers always turn up for sensitization.

The study showed that more than half of the respondents, 36 (72%) said health workers don't come to their areas for sensitization against covid-19 vaccine whereas 7.5(15%) said health workers always go for sensitization to their areas.

3.4. Health facility factors which has contributed to low response towards covid-19 vaccine uptake.

Majority of the respondents 42.5 (85%) had public health facilities around their home and few of the respondents 7.5 (15%) didn't have.

Majority of the respondents 24 (48%) had public health facility around their homes where as few of the respondents 5 (10%) their homes were more than 6 Kilometers to the public health facility.

35 (70%) of the respondents said there are no covid-19 vaccines available always in the public health facility and only about 15 (30%) of the respondents said there are always vaccines available at the health facility.

Majority of the respondents 25(50%) said the health workers were rude towards them when always at the hospital to receive the vaccine and only 10 (30%) of the respondents said they were always friendly. 9 :getthevaccine.

Majority of the respondents 42.5 (85%) said they had ever made a move to the facility for vaccination however they failed to be vaccinated. While 7.5 (15%) of the respondents had ever gone for vaccination and received the covid-19 vaccine.

The majority of the respondents 27.5 (55%) did not receive the vaccines because of no vaccines at the facility, 11.5 respondents (23%) did not receive the vaccines because of no health workers at the facility, and 11 (22%) respondents failed to

get vaccinated because they were not attended to by the health workers.

4. DISCUSSION

4.1. Characteristics of the respondents

The study findings showed that most of the respondents, 28 (56%) were aged between 25-34 years; this indicates that they were the most responsible age group. It also found out that most of the respondents 79 (66.7%) were female and these indicated that they were the most available at home. The study conducted by (Jovana Stosanovic, 2021) showed that women were most likely to hesitate about the uptake of covid-19 vaccine.

About 60% (30) of the respondents stopped at primary levels indicating that the residents of Acoo village lacked knowledge on covid-19 vaccine, this was in line with the study conducted by (Thanapluetiwong S C. S., 2021) that showed that there was low covid-19 vaccine uptake due to low level of education since they had insufficient information on covid-19 vaccine as discussed by (Roy DN, 2022). Also, the study showed that covid-19 vaccine hesitancy increased as a result of insufficient information to the residents.

The study also showed that most of the respondents, 29 (58%) were peasants farmers this means that they had less time to go to the health facility to receive the vaccine since most of their time they would be in the garden caring for their crops.

4.2. Individual factors contributing to low response toward covid-19 vaccine uptake.

The majority of the respondents 90% (45 respondents) had never suffered from covid-19 diseases, this led to increased covid-19 vaccine hesitancy among residents since the disease had affected a few individuals only thinking it would not be serious. This finding was in line with the study conducted by (Thanapluetiwong S C. S., 2021) who confirmed that increased hesitancy to covid-19 vaccine uptake was associated with a low number of new covid-19 cases per day which led to increased hesitancy on vaccine uptake.

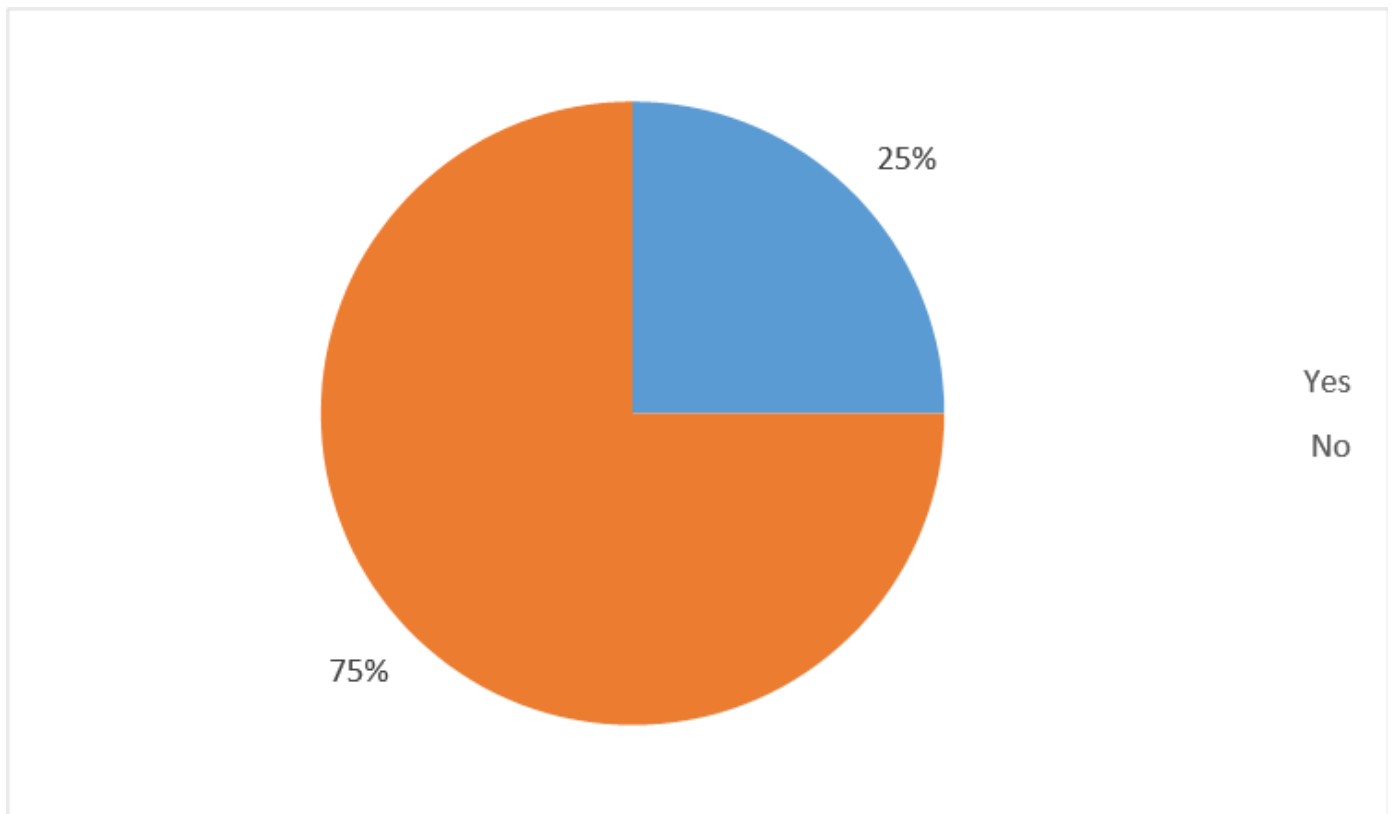


Figure 6: A pie chart showing distribution of respondents according to whether healthworkers come to their area for sensitization against covid-19 vaccine.

Table 3: Showing distribution of respondents according to how often health workers go to community for sensitization against covid-19 vaccine uptake.

Number of times	Frequency	Percentage (%)
Once	7.5	15%
Twice	6.5	13%
Not at all	36	72%
Total	50	100

Table 4: Showing distribution of respondents according to how far there homes are from the public health Facility.

Distance (KM)	Frequency	Percentage (%)
1-2	24	48
2-4	9.5	19
4-6	11.5	23
>6	5	10
Total	50	100

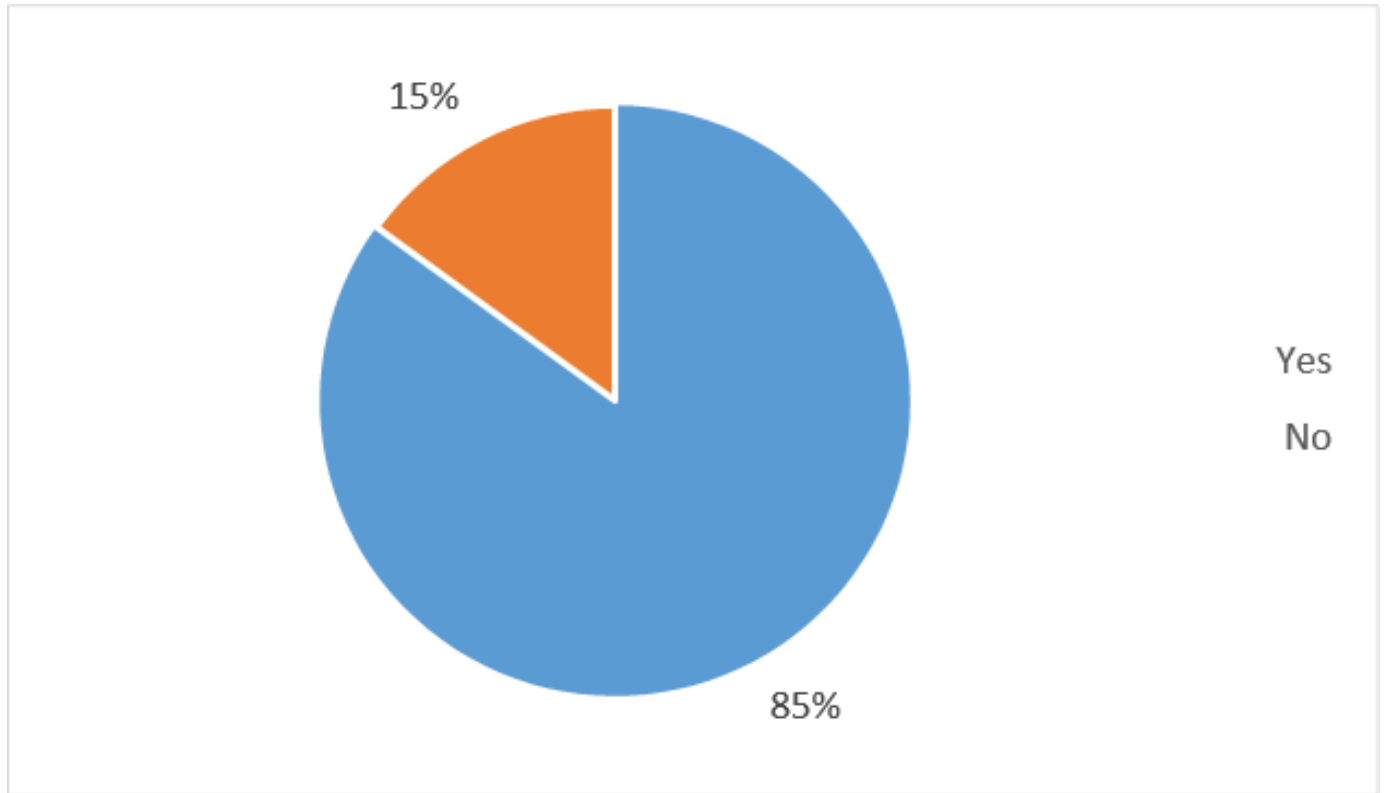


Figure 7: A pie chart showing distribution of respondents according to if there are public health facilities in their areas

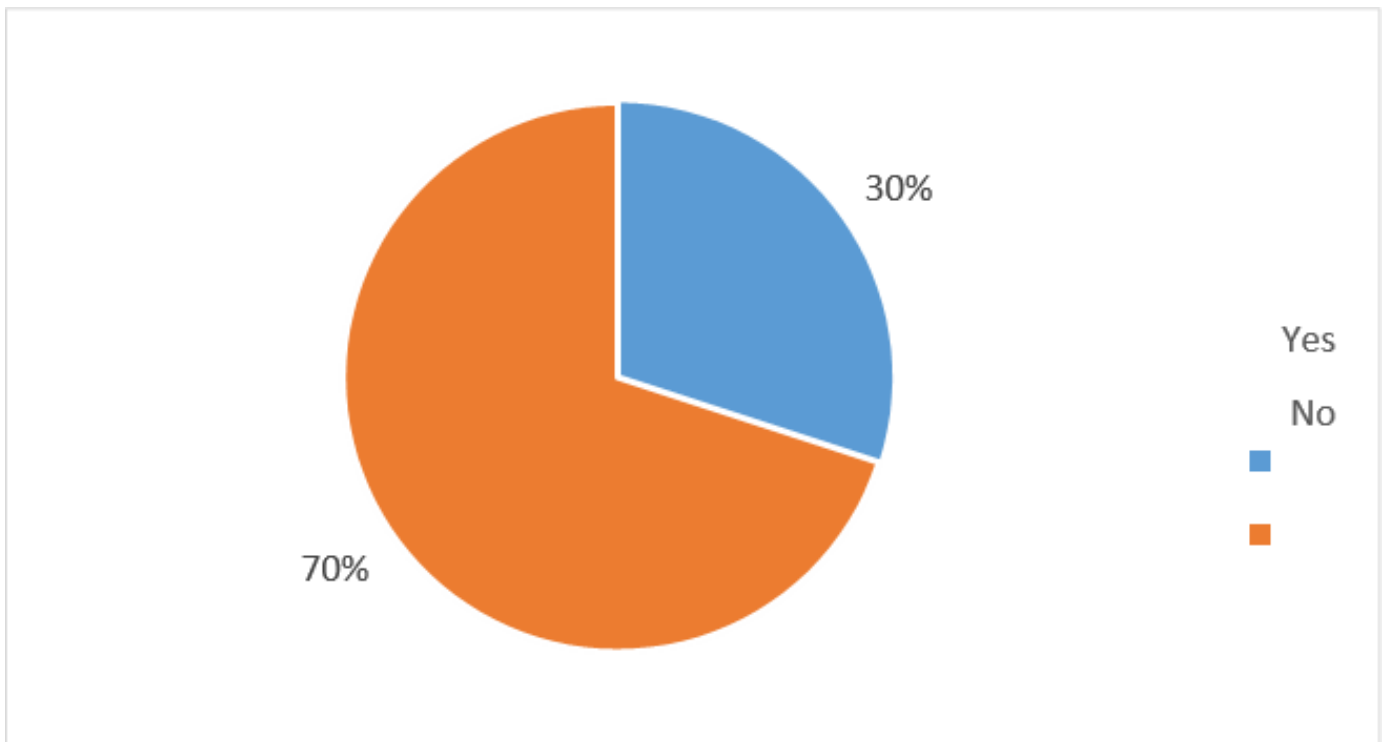


Figure 8: A pie chart showing distribution of respondents according to if there was always covid-19 vaccines available in the public health facility.

Table 5: Showing distribution of respondents according to the reaction of health workers to them when in the health facility to receive the vaccine.

Worker's Reaction	Frequency(f)	Percentage(%)
Rude	25	50
Friendly	10	20
Ask for money	15	30
Total	50	100

Table 6: Distribution of respondents according to what has made them not to receive covid-19 vaccine from the health facility.

Reasons for not receiving vaccines	Frequency	Percentage (%)
No vaccines	27.5	55
No Health workers	11.5	23
Not attended to	11	22
Total	50	100

In this study, a few participants 20% (10 respondents) had been vaccinated against covid-19 disease. This was in line with the study conducted by (Roy Rillera Marzo, 2022) that showed that the majority of the respondents (49.3%) expressed hesitancy to receive covid-19 vaccine thus making only a few to receive the vaccine. Another cross-sectional study conducted by (Patricia Soares, 2021) found that 35% of the participants would take the vaccine as soon as possible, 56% would wait before taking the vaccine and 90% would not take the vaccine hence a high increase in covid-19 vaccine hesitance therefore correlating with the findings.

The study also evidenced that the majority of the participants 95% (48 respondents) suffered from the side and adverse effects of the vaccine which led to low vaccine uptake. This was in line with a study conducted by (Roy DN, 2022) which showed that the safety as well as fear of the side effects of the vaccine was the factors leading to vaccine hesitancy.

The study also found out that the majority of the respondents 65% (33 respondents) received the vaccine only once therefore majority did not complete covid-19 vaccine doses. This was in line with the side effects of the vaccine therefore it correlates with across sectional study conducted

by (Roy DN, 2022) which showed that there was low uptake of the vaccine as a result of the side effects.

When respondents were asked where they get the vaccine most, it was found that the majority had gotten the vaccine from the hospital, therefore few participants received the vaccine from health center II as a result of the lack of vaccines at the facility. This study was in line with the study conducted by (Saif Khairat, 2022) which showed that low vaccine uptake was associated with low covid-19 vaccine availability and distribution at the health facility.

The study also found out that the majority of the participants about 85% (43 respondents) were forced to be vaccinated. This was in line with a cross-sectional study conducted in Ghana showing that the majority (64.5%) of health care workers were unwilling to accept the vaccine due to concerns about its safety of vaccine also the study showed that 16% and 15% of the participants were unwilling to accept be vaccinated due to fear of the adverse effects of the vaccine (Martin Wiredu Agyekum, 2021).

Additionally, most of the respondents 45 (89%) got the vaccine for free as per the study conducted.

4.3. Community factors contributing to low response towards covid-19 vaccine uptake.

When respondents were asked if health workers always go to their areas for sensitization on covid-19 vaccine 37.5(75%) said "NO" and this affirms the findings conducted by (Roy DN,2022) that showed that in Asian countries covid-19 hesitancy was high as a result of information insufficiency about covid-19 vaccine.

When respondents were asked how often the health workers come to their village, 36 (72%) of respondents revealed that the health workers do not come at all. This showed that there was high hesitancy as a result of information insufficiency and was in line with the study conducted by (Roy DN, 2022) which showed that information insufficiency resulted in increased covid-19 vaccine hesitancy among residents.

4.4. Health facility factors contributing to low response towards covid-19 vaccine uptake

The study found that most of the respondents about 42.5 (85%) had public health facilities around their homes so they not to move long distances to get covid-19 vaccine. However, the majority about 48% (of 24 respondents) only move about 1-2Km from their homes but a few of the respondents 5 (10%) could move a distance greater than 6Km

However, when respondents were asked in the study conducted whether covid-19 vaccine is always there in public health facilities, the majority of the respondents (70%) said "No". Thus, acting as one of the contributing factors to covid-19 vaccine hesitancy. This was in line with the study conducted by (Saif Khairat, 2022) that showed that low vaccine uptake was a result of low vaccine availability and distribution as well.

The study also found out that the increased covid-19 vaccine hesitancy was a result of the unavailability of the health workers to administer the vaccine to respondents and was found out after respondents were asked whether the health workers are always in public health facilities where the majority 28.5 (57%) of respondents said "No"

therefore indicating that low response to covid-19 vaccine was as a result of the absence of health workers in the hospital.

When respondents were asked how health workers react to them while in the health facility to receive the vaccine, 25 (50%) of the respondents said health workers were always rude to them, therefore, making respondents fear getting the vaccine hence contributing to increased hesitancy to covid-19 vaccine, especially in Acoo village.

However, when asked whether respondents have failed to get vaccinated against covid-19 vaccine when in the health facility. The majority of the respondents (85%) said 'YES'. While about 27.5(55%) said they didn't get vaccinated against covid-19 because of a lack of covid-19 vaccine in the health facility. This was in line with the study conducted which showed that covid-19 vaccine hesitancy increased with low vaccine availability and distribution in the health facility.

5. Conclusion

According to the study, the following were the factors contributing to low response towards covid-19 vaccines; Fear of the side and adverse effects of covid-19 vaccine because 90% of respondents hesitated against vaccine uptake because of the side effects

Low vaccine availability and distribution also contributed to an increase in low covid-19 vaccine uptake among residents of Acoo village, which accounted for about 55% of the respondents not being vaccinated as a result of no vaccine in the health facility.

Low education levels since about 30 (60%) of the respondents stopped at the primary level therefore they lacked sufficient knowledge on covid-19 vaccines hence increased vaccine hesitancy among residents.

Worst of all, about 75% of respondents said there is no sensitization about covid-19 vaccine, therefore, leading to insufficient information among residents on covid-19 vaccine hence low uptake of the vaccine.

6. Study limitation

The researcher expected financial constraints in gathering information from the Internet, libraries, and printing costs. By drawing an estimated budget and following it promptly, the researcher overcame this constraint.

Most likely the researcher also encountered time constraints in the course of the study, balancing the research study and other demanding course works. The researcher overcame this by drawing a timetable that was strictly followed to overcome time constraints.

7. Recommendations

With the above conclusion, the following recommendations were forwarded.

7.1. To the Ministry of Health

- There was a need for the Ministry of Health to stipulate information and strengthen campaigns on the covid-19 vaccine uptake and the public should be made aware
 - Strengthening of rules and regulations that would enable the residents to take the covid-19 vaccine and avoid vaccine hesitancy among them.
 - The Ministry of Health should promote effective supply and distribution of Covid-19 vaccines to all Health facilities to promote efficient vaccine uptake among residents.
 - The Ministry of Health also should employ the use of telecommunication technologies and social media platforms to strengthen and improve community awareness of Covid 19 vaccines and the associated benefits.

7.2. To the District Health Office.

- The district health officer should promote continuous health education by Health workers, especially on ways of overcoming the side effects of vaccines.
 - There was a need for further study to be conducted with a large sample size to substantiate the findings of this study for possible generations.
 - In addition to that, there was a need for sensitization of the community members on the dangers of vaccine hesitancy as well as to obtain more knowledge about covid-19 vaccine.

7.3. To the community members.

- There was a need to continuously inform fellow community members of the goodness of being vaccinated.
- With combined efforts, there was a need to eradicate covid-19 vaccine hesitancy by developing good health-seeking habits.
- There was a need to employ Village Health Teams (VHT) to sensitize the community on the Covid-19 vaccine and the goodness of taking the vaccine.

8. Clinical implications.

- Based on the findings from the study it's a requirement for the clinical fraternity to strengthen the health talks/sensitization of community members on covid-19 vaccine hesitancy and its complications like adverse drug effects.
- More so the findings of the study would encourage stakeholders to include health workers in the continuous mentorship to improve their knowledge and help in the eradication of covid-19 vaccine hesitancy since a greater percentage of community members have hesitated to be vaccinated.

9. Acknowledgement.

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10. List of Abbreviations.

ADR : Adverse Drug Reaction

CDC : Center for Disease Control and Prevention

COVID-19 : Coronavirus

KSHS : Kampala School of Health Sciences

MOH : Ministry of Health

WHO : World Health Organization

11. Source of funding.

This study was not funded.

12. Conflict of interest

There was no conflict of interest during the study

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