



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

AN ONLINE SURVEY BASED ON THE EFFECTIVENESS OF THE COVID-19 VACCINE

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ABSTRACT –

The Coronavirus Disease 2019 (COVID-19) pandemic is the defining global health crisis of our time and the greatest challenge the entire world is facing. Vaccination could be an effective strategy for delaying the spread of the current COVID-19 pandemic. It's evident that the vaccination could be the best way to fight against the Coronavirus Disease 2019 (COVID-19) because vaccination has been an effective practice since the 18th Century and has always been considered to show the highest standards of potency of the drugs. Our main aim of this paper is to study the effectiveness of the COVID-19 Vaccine on humankind, in addition to the side effects caused by the vaccine, based on the data collected through the online survey so as to understand the degree of potency of the vaccine on humans.

Key word –COVID 19, Vaccination

Introduction-

The introduction of the new virus to the human population is one of the greatest enigmas an epidemiologist can hope to elucidate. The origin of SARS-CoV-2 seems to be from bat, while then role of intermediate host is still debatable. While some of the most common and deadliest human diseases are caused by bacteria or viruses of animal origin that include avian flu, Ebola virus disease, influenza, leprosy, MERS-CoV, rabies, SARS, smallpox, tuberculosis, Zika fever and other well-known diseases, it has been studied in recent decades that this trend has only surged, with an estimated 70 per cent of emerging and re-appearing pathogens coming from animals.

The Corona virus Disease 2019 (COVID-19) pandemic is the defining global health crisis of our time and the greatest challenge the entire world is facing. Since its emergence in Asia in 2019, the virus has spread to almost all the continents. The pandemic is much more than a health crisis, it's also an unrivalled socio-economic crisis. It has the potential to create devastating economic, political, and social effects that will leave deep and long-lasting scars. Every day, people are losing jobs and the daily-wage workers are now left with no source of income as there is no other option than maintaining social distance among people so as to lessen the chances of spreading of the virus. As of 15th May, 2021 - 3,383,380 people have died so far from the corona virus COVID-19 outbreak globally.

Efforts for the development of vaccines against COVID-19.

There are two predominant design strategies for coronavirus vaccine development: the usage of the whole virus or genetically engineered vaccine antigens that can be delivered through different compositions. There are two vaccines, Covaxin and Covishield that are being produced in India, out of which the later being developed by Oxford-AstraZeneca in collaboration with the Serum Institute of India (SII),

MATERIALS AND METHODS

1. Data Collection-

For data collection, I have prepared a pro-forma containing the questions based on the effectiveness of vaccine. It was created online using the online format, Google Forms, whose link was shared with the beneficiaries via WhatS app, Instagram and Telegram (social media apps).

The main concern was to understand the efficacy of the COVID-19 vaccines on humankind. In order to do so a set of 11 questions excluding the basic personal details, viz. the name, age, gender, e-mail ID of the respondents and declaration by the respondent were being prepared which mainly focused on the exposure to the SARS-COV-2 virus, COVID-19 vaccination, type of vaccine administered, its efficacy, side effects, and feedback based on the same. In the questionnaire, there is a question, "do you feel safe after getting vaccinated?" which mainly aimed at understanding the respondents' mindset about the efficacy and safety of the available vaccines that are being administered to the public. In order to get cured after taking any kind of medicine it is advised to have a positive attitude towards the medication therapy, only then they work efficiently in one's body. Also, people's hesitancy towards the COVID-19 vaccines is merely a matter of state of mind or one's opinion that comes into play.

An online pro-forma was being prepared containing the questions on which the online survey was to be carried out. The link of the pro-forma is attached below: https://docs.google.com/forms/d/1yLBKW1_RRbub2t93OKWx1qMD-3xHyIODFXzZcF4pE6w/edit

The course of the online survey was for 20 days; dated - 22/04/2021 to 11/05/2021 (including both mentioned dates). A total of 153 beneficiaries have responded whose responses have been recorded until the last date of the survey, i.e., 11th May, 2021. Active participation was observed in filling out the online questionnaire (Google Forms) and genuine answers were expected from them. People were assured that their identity would be kept confidential, as survey was focused on to get a concrete conclusion based on data to be collected by the end of closure of the survey.

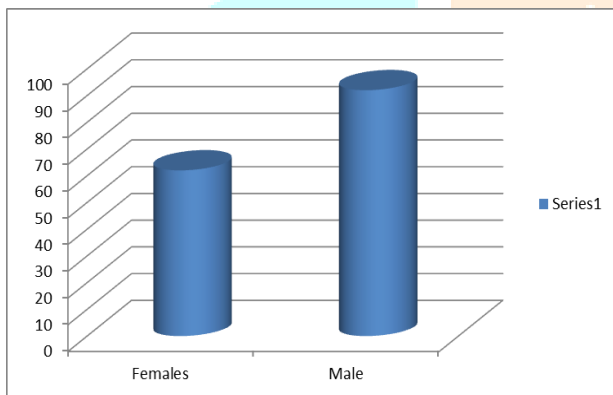
The respondents (beneficiaries) have also been requested to declare if the responses/information furnished by them through the Google Forms would be used for research purposes. In the end, a total of 153 forms have properly been filled by the respondents based on which the further data have been collected using the statistical approach, and observations on the same have been obtained post-analysis.

RESULTS AND DISCUSSIONS

Based on the questions in the online pro-forma created using the format, Google Forms (refer to the link given in the Chapter 3 - Materials and Methods) and the properly filled responses furnished by 153 respondents (beneficiaries) during the entire course of the online survey have been recorded. An amalgam of observations have been studied which are distinctively tabulated along with the graphs/pie charts that have been obtained using the collected data post-analysis are as follows :

4.1. Table 1: Categorisation and percentage of the respondents (beneficiaries) based on the gender group they belong to, respectively. The table and the chart are as follows:

Gender	
Females	Male
62	92

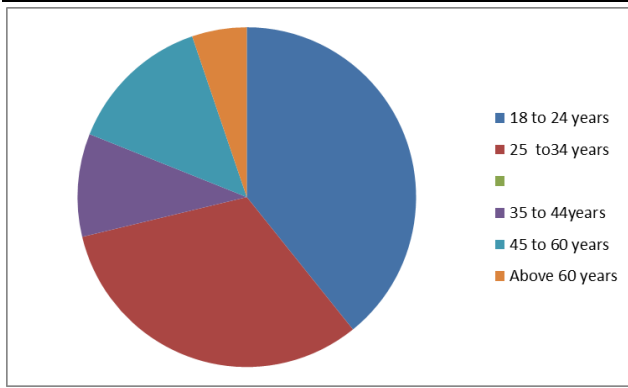


Out of 153 respondents (beneficiaries) whose recorded responses were taken into consideration for the study, the number of males were 92 (60%) whereas females were 61 (40%).

4.2 - Respond According to age group--:

Categorisation and percentage of the respondents (beneficiaries) based on the age groups they belong to, respectively. The table and the pie chart are as follows:

Age group	
18 to 24 years	60
25 to 34 years	49
35 to 44 years	15
45 to 60 years	21
Above 60 years	8



Out of 153 respondents (beneficiaries), mostly the respondents were of 18 to 24 years age group(39%) followed by respondents from 25 to 34 years age group (32%); third age group being 34 to 45 years (14%), and the least being above 60 years (only 5%).

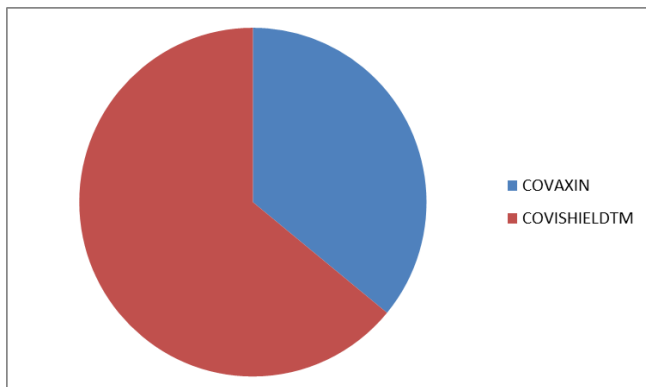
4.3 :Categorization and percentage of the respondents (beneficiaries) based on the beneficiaries being vaccinated against COVID-19, respectively. The table are as follows:

BENEFICIARIES VACCINATED AGAINST COVID-19	
YES (vaccinated)	NO (not vaccinated)
100	0

4.4- According to type of vaccine -

Categorisation and percentage of the respondents (beneficiaries) based on the type of the vaccine they're being injected with, respectively. 98 beneficiaries (64%) of the total got COVISHIELDTM, the COVID-19 vaccine administered whereas the rest 36% i.e., 55 beneficiaries got injected with COVAXIN® the vaccine against COVID-19. The table and the pie graph chart are as follows

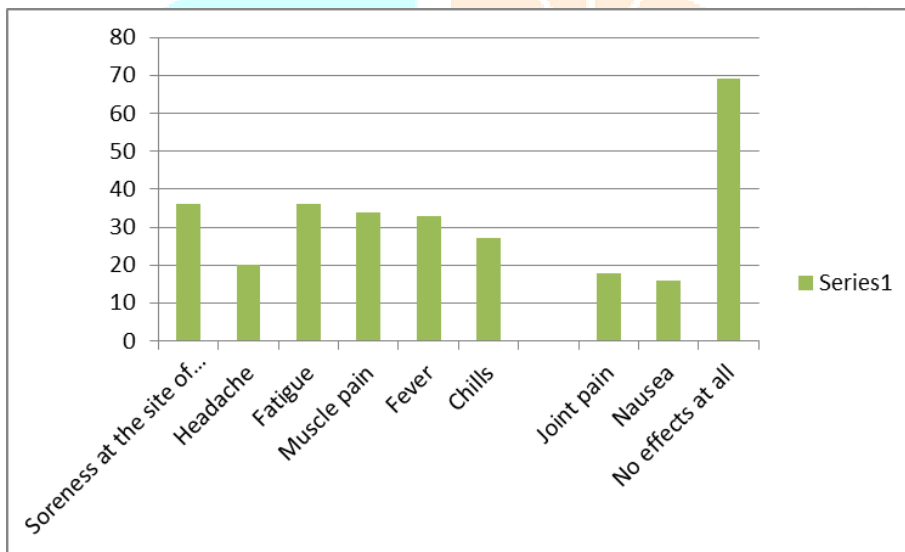
VACCINES INJECTED TO BENEFICIARIES	
COVAXIN	COVISHIELDTM
55	98



4.5 . Based on the side effects-

Categorisation and the number of the responses recorded by the respondents (beneficiaries) based on the side effects caused post- 1st dose of the vaccine, respectively. The table and the graph are as follows:

SIDE EFFECTS AFTER GETTING THE 1st DOSE OF THE VACCINE	
Soreness at the site of injection	36
Headache	20
Fatigue	36
Muscle pain	34
Fever	33
Chills	27
Joint pain	18
Nausea	16
No effects at all	69



Study shows that mostly the people (69 out of 153 respondents) who got the 1st dose of the vaccine administered have experienced no side effects on their body. Rest are those who reported mixed responses from the very list of the side effects caused by the 1st dose of vaccine. Among those, the ones who experienced side effects of the vaccine, the majority (36 respondents) were those who suffered both soreness at the site of injection and fatigue, followed by those who suffered muscle pain (34 respondents) and fever (33 respondents). 27 were those who experienced chills; 20 respondents faced headache; joint pain was experienced by 18 people and the last but not the least, 16 people felt nauseous after taking the 1st dose of the COVID-19 vaccine.

CONCLUSION-

On the basis of the data collected from the responses furnished by 153 respondents (beneficiaries) via the online survey which was being carried out during the course of survey dated from 22nd April, 2021 to 11th May, 2021, some significant points have been obtained post-analysis.

A total of 153 respondents (beneficiaries) whose recorded responses were taken into consideration for the study purpose. It was found out that the number of males were 92 (60%) whereas females were 61 (40%). Mostly the respondents, including both the males and the females, were of 18 to 24 years age group (39%) followed by respondents from 25 to 34 years age group (32%); third age group being 34 to 45 years (14%), and the least being above 60 years (only 5%) - who took part in the online survey.

It has been studied that 52% (80 people) of the total respondents got exposed to the coronavirus, SARS-CoV-2 and hence got infected with the virus while 48% (73 people) were those who didn't get exposed to SARS-CoV-2, meaning they didn't suffer from COVID-19 and have been safe.

As per the data, 80 people were infected with COVID-19 out of 153 recorded responses. 25 people (31%) of the total infected ones reported that it took them 15 to 21 days to get cured from the disease while 24 people (30%) told they got cured within 7 to 14 days. 20 people, i.e., 25% got well within a week whereas 8 people (10%) were those who took 22 to 30 days to get well and the last being only those 3 people (4%) who took more than a month to be properly cured from COVID-19.

According to the objective of the online survey, the respondents were basically chosen based on one criterion that only those beneficiaries who have taken shots of the vaccine will be taken into consideration. So, all the 153 respondents (beneficiaries) i.e., 100% of them have been vaccinated against COVID-19 based on the information shared by them. 64% of the total beneficiaries, that is, 98 beneficiaries got Covishield TM, the authorized COVID-19 vaccine injected with whereas the rest 36%, i.e., 55 beneficiaries got Covaxin the potent vaccine against COVID-19 administered beneficiaries) via the online survey which was being carried out during the course of survey dated from 22nd April, 2021 to 11th May, 2021, some significant points have been obtained post-analysis.

Until the end of the course of the survey, the total 153 beneficiaries who recorded their responses - 96 of them (63%) have taken both the doses, while 57 beneficiaries i.e., 37% were those who have taken only the 1st dose.. Based on the data collected, the beneficiaries who took the very 1st dose of the COVID-19 vaccine - 69 out of 153 respondents reported that they have experienced no side effects on their body. Rest are those who reported mixed responses from the very list of the side effects caused by the 1st dose of the vaccine that have been mentioned in the questionnaire of the online survey.

Among those, the ones who experienced side effects of the vaccine the majority (36 respondents) were those who suffered both soreness at the site of injection and fatigue, followed by those who suffered muscle pain (34 respondents) and fever (33 respondents). 27 people were those who experienced chills; 20 respondents faced headache; joint pain was experienced by 18 people and the last but not the least, 16 people felt nauseous after taking the 1st shot of the COVID-19 vaccine.

Among those who after taking the 2nd dose of the COVID-19 vaccine - 52 out of 96 beneficiaries have experienced no side effects on their body who have taken both the doses.

It can be inferred from the above data that the majority feels the vaccine to fight the virus, SARS-CoV-2 is quite effective and that they feel safe after getting the dose(s) of the COVID-19 vaccine. 102 people which comprise 67% of the total (153 respondents) find the vaccine safe and effective. A section of people are still not sure if the vaccine would really work to fight the virus and that comprises - 26 people, i.e., 17% of the total who chose the option - maybe; and 10% of the total which is 15 people who say they don't know if the vaccine is potent and safe. Last but not the least, 10 respondents (only 6%) of the total made it clear from their opinion that the vaccines to fight COVID-19 are not at all effective against the coronavirus, and that even after getting the dose(s) of the vaccine they don't feel safe.

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