



Perception and Experience of COVID 19 Vaccine Side Effect among Foreign Medical Students in JASU

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ABSTRACT

Background

In the study we have considered the perception and experience about the side effects of the COVID-19 vaccine among foreign medical students after their vaccination period in Jalal-Abad State University, Kyrgyzstan.

Methods

A cross-sectional study was conducted in which semi structured close ended questionnaire was distributed to collect data from the foreign students that were selected on the basis of a convenient sampling technique. After collecting data, they will enter in SPSS software, descriptive evaluation was made on the basis of result.

Results

Majority 48.1 % respondent perceive that COVID-19 vaccine will have pain at site of injection, followed by 31.4% headache and fatigue, 28% problem with diarrhea and vomiting. Majority 42% of respondent reported they had mild side effect after receiving COVID-19 vaccine. Where 32.1% of them reported that they have experienced pain at the site of injection after receiving the vaccine followed by headache and fatigue (28.4%), fever (15.2%) diarrhea and vomiting (10.3%).

Conclusion

While the perception of most of the students reported that they were worried regarding the side-effects of the COVID-19 vaccine, a significant proportion of the study participants have reported that they perceive COVID-19 vaccine will have life-threatening side-effects. Such fears have also played a role in affecting vaccine uptake. Therefore, the Ministry of Health, and other concerned government bodies should create further awareness on COVID-19 vaccine and related safety issues. Majority 55.6% of the respondent reported that they were worried about side effect of COVID-19 vaccine. 75.3% of respondent perceive that COVID-19 vaccine does not cause infection.

Keywords: COVID-19, perception, side-effect, vaccine

Main text

As it was not less than a war against SARS-CoV19 virus which took lives. Globally 60 million, USA with 970K, India with 516K and Brazil with 657K are top 3 countries who became victim of COVID-19. So it was an urgent need to find solution for this pandemic. Therefore, on 2nd December 2020, UK medicines and healthcare products regulatory agency (MHRA) gave temporary regulatory approval for Pfizer bio n tech vaccine and became first country to approve a vaccine.

Slowly, many countries not only approved but also developed vaccine of their own like India got Covishield and Covaxin, Russia got Sputnik, America got AstraZeneca and China got Sinopharm. Though, we got vaccines still our fight was tough, dealing with perception of people who denied vaccine, some saw it as threat and others didn't care, some experienced harsh conditions after getting it. While there were some side effects of it too, then curious to know what exactly was their view and experience, this research states the mentality and behavior of people towards COVID-19 vaccine.

In south Asian countries near about 2/3rd of respondents were willing to take COVID-19 vaccine, and for now south Asia shares 15% fully vaccinated and 22.6% partially vaccinated population in the world. Recently, according to research, more than 10 billion doses of COVID vaccine has

been administered globally. Many nations began rolling out vaccines in late 2020 and early 2021, and since then more than 60% of world's population-4.8 billion people have received at least 1 dose of one of more than 20 different COVID 19 vaccines that has been approved by the nations for use around the world.

Considering a country like India who was 2nd victim for most death by COVID got its 2 vaccine which India administered nearly 181 crore doses to people, India came a long way before reaching this rank. India faced many challenges from all sides including superstition, poverty and illiteracy approach to vaccine.

Taking a country like Pakistan who administered 218 million doses to its people. They faced same problems as India, the religion, superstition; poverty and illiteracy are among top problems for it. Though, the country also suffered a lot to get vaccine but got it in time to tackle the problem. This small and beautifully developing country in sector of health has 28 lakh doses administered to its people. Though, lacking in many treatments yet country was able to tackle this problem, but faced many problems like lack of vaccine, lack of doctors and the false perception of people towards COVID vaccine.

All countries faced same problem for vaccine administration like African and Asian countries were challenged for affording it, while countries like Europe and America were little unsure of side effects. Many countries were lacking in healthcare sector and there were not enough doctors and proper treatment available.

RESEARCH QUESTION

What is the Perception and experience of COVID 19 vaccine side effect among foreign medical students in JASU?

OBJECTIVE

General objective

- To find the Perception and experience of COVID 19 vaccine side effect among foreign medical students in JASU.

Specific Objectives

- To identify socio economic background of the COVID 19 vaccinated people.
- To know the perception of side effect among people for COVID 19 vaccine.
- To know the experience of side effect among people after receiving COVID 19 vaccine.

METHODOLOGY

Study design: This study is designed as descriptive study.

Data collection tool: The questionnaire is prepared from a previous study and modified to meet the objective of this study. The questionnaire is comprised of 3 sections, where the 1st section includes demographic data, 2nd section includes perception related to COVID 19 vaccine side effect and 3rd section includes experience related to COVID 19 vaccine side effects. The questionnaire was both in English and Russian languages.

Data collection procedure: The researcher will visit individual respondent personally and handover the questionnaire and they will fill it themselves. The questionnaire comprised of a consent form which the respondent are expected to read and accept or reject to participate in the research study.

Socio-demographic: The socio-demographic section of questionnaire consists of 11 questions including personal information of the respondents.

Perception related to COVID 19 vaccine side effect: To evaluate the perception towards the COVID 19 vaccine side effect, 22 questions were asked. The answering is based on individual thinking and perception.

Experience related to COVID 19 vaccine side effect: This is to evaluate experience toward COVID 19 vaccine side effect, 18 questions were asked. The answering is based on individual thinking and experience.

Inclusion and Exclusion criteria

Inclusion

- a) Only those who are interested are selected as respondent.
- b) Those who have received vaccine for COVID 19
- c) Only students of JAGU are included

Exclusion

- A. Who are not willing to participate in the study?
- B. Who has not received the vaccine?

Ethical consideration: The researchers obtained ethical approval from administrative bodies before conducting the study. The respondent was informed about the purpose of the study. The respondent was also informed that their participation was voluntary and they could step their participation at any stage in case they felt uncomfortable. The confidentiality of the information obtained was kept and respondent names were not recorded.

Data processing and analysis: Data will be recorded and will be entered in the software using SPSS version 26 for analysis, frequency, means, standard deviation will be calculated.

RESULTS OF THE STUDY

The result of study is based on the response provided to us by the respondent who were vaccinated with COVID 19 vaccine, and who have perception of vaccine, and had also experienced its side effect after receiving it, aiming at what age group, religion, nationality, and family class, and family type we tried to seek perception of each type by asking them these personal questions which are categorized into socio-demographic section. The curiosity about knowing the perception of each vaccine, about knowing which is considered as best, effective, cheapest, available vaccine for respondent, knowing about their experience with that vaccine, and also their concern over COVID 19 and its vaccine, we proceed to present the organized and collected data before you.

Table 1: Distribution of respondent by age

Age	Frequency (n)	Percentage (%)
Below 20	14	17.3
20- 30	66	81.5
30-40	1	1.2
	81	100

Above table shows 17.5% of respondent were below age 20, 81.5% were between 20-30 years of age, 1% were between 30-40 years of age.

Table 2. Distribution of respondent by gender

GENDER	FREQUENCY	PERCENTAGE
Male	30	37.0
Female	51	63.0
	81	100.0

Above table shows in study 37% of respondent were female, 63% of respondent were male

81.5% respondent were from India, 1.1% were from Pakistan, 7.4% were of other nationality.

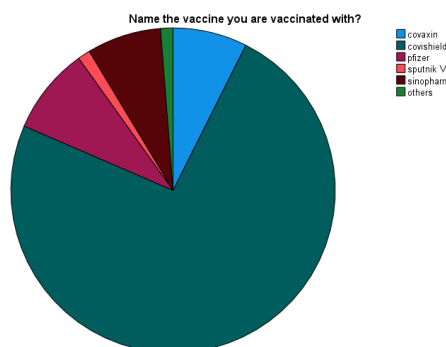
It was noted among respondent that father of 32% were literate, approx. 65% were having qualification, and only 3.7% were illiterate.

31% of respondent mother were literate, 58% approx. were having qualification, and 9.9% were illiterate.

9.9% of respondent father were private employee, 35.8% were business owner, 30.9% were government employee, 9.9% were in agriculture, 2.5% were house-husband, and 11.1% were having other jobs.

27% of respondent were having income below 1 lakh, 29.6% below 5 lakh, 17.3% below 10 lakh, 7.4% below 20 lakh, others were in 18.5%. 75% respondent having nuclear family, 3.7% have single parent, 7.4% have guardian, and 13.6% are in others.

Figure 1. Names of vaccine take by respondent



Above figure shows 7.4% of respondent took covaxin, 74% took covishield, 8.6% took Pfizer, 1.2% took sputnik v, 7.4% took sinopharm, 1.2% respondent took other vaccine.

Table.3. Distribution of respondent according to the number

Doses of COVID-19 vaccine	Frequency	Percentage
1	--	----
2	81	100
Booster dose	0	0

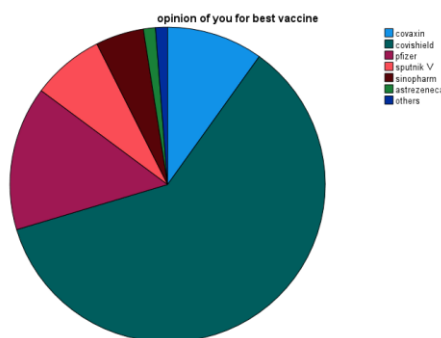
Above table shows 100 percent of respondent took 2 dose of vaccine.

Table.4. What motivated respondent to get vaccinated

	FREQUENCY	PERCENTAGE
Protection of society	31	38.3
To resume social activity	4	4.9
Others encouraged me	2	2.5
Self-protection	44	54.3
	81	100

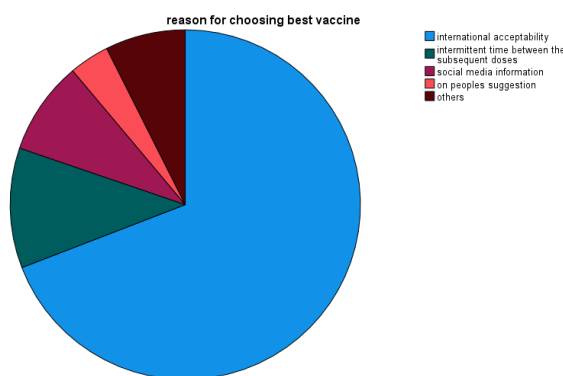
Above table shows 38.3 % respondent took vaccine for protection of society , 4.9% for to resume social activity , 2.5 % were encouraged by others, 54.3 % took vaccine for self protection.

Figure.2. Opinion of respondent about which is best vaccine



ReAbove figure shows 9.9 % people suggested covaxin as best, 60.5% for covishield, 14.8 % for Pfizer, 7.4 % for sputnik V , 4.9 % for sinopharm , 1.2 % for astreseneca , 1.2 % for others.

Figure.3. Respondent reason for choosing best vaccine



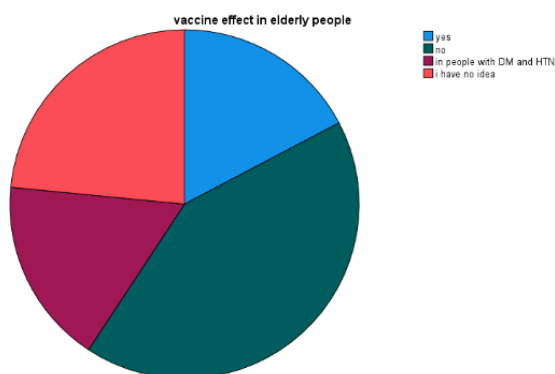
Above figure shows 69.1 % of respondent choose best vaccine because of international acceptability, 11.1 % for intermittent time between the subsequent doses, 8.6 % choose best vaccine by social media information, 3.7% by peoples suggestion, 7.4 % by other mean.

Table: 5 Distribution of respondent concern about faulty or fake vaccine

Concerns	Frequency	Percentage
Yes	23	28.4
No	39	48.1
Not Sure	19	23.5
	81	100

Above table shows 8.4 % of respondent were concern about vaccine, 48.1% were not, 23.5 % were not sure

Figure.4.View of respondent about vaccine effect in elderly people



Above figure shows 17.3% agreed on effect of vaccine on elderly people, 42% said no, 17.3% said yes for old people having DM and HTN, 23.5% of people had no idea.

Table.6 Does vaccine cause infection – view of respondents

	Frequency	Percentage
Yes	9	11.1
No	61	75.3
don't know	11	13.6
	81	100.0

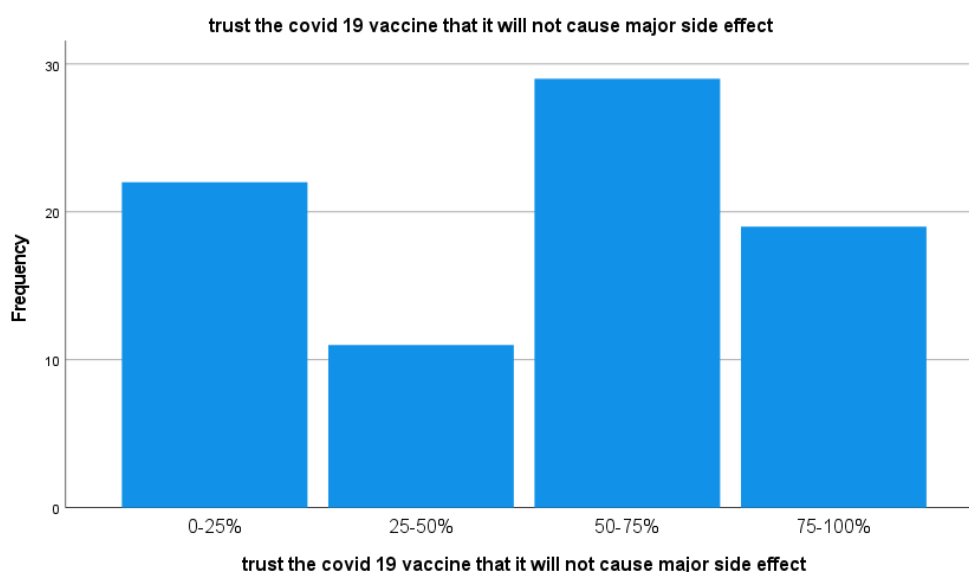
Above table shows 11.1% said yes for vaccination causing infection, 75.3% denied, 13.6% were unaware.

Table.7. Effective in preventing transmission of covid –view of respondents

	Frequency	Percentage
Yes	52	64.2
No	19	23.5
don't know	10	12.3
	81	100.0

Above table shows 64.2% agreed for vaccine being able to prevent COVID transmission, 23.5% denied, 12.3% were unsure.

Figure.5. Respondents trust on vaccine that it will not cause major side effect



Above figure shows 27.2% of people trusted vaccine in 0-25% scale, 13.6% in 25-50% scale, 35.8% in 50-75% scale, and 23.5% in 75-100% scale.

Table.8. Temperature higher than 25 degrees prevent covid- view of respondents

	Frequency	Percentage
Yes	23	28.4
No	41	50.6
don't know	17	21.0
	81	100.0

In above table 28.4% people agreed that temperature can prevent covid , 50.6 % denied , 21% were unaware.

Table.9. Other preventive measures important even after vaccination- view of respondents

	Frequency	Percentage
Yes	66	81.5
No	6	7.4
Don't know	9	11.1
	81	100.0

In above table 81.5 % agreed other preventive measures were important even after taking vaccine, 7.4 % denied, 11.1 % were unaware.

Table.10. Knowledge of respondents toward vaccine side effect

	Frequency	Percentage
Good	61	75.3
Bad	9	11.1
dont know	11	13.6
	81	100.0

In above table 75.3% people were having good knowledge about COVID vaccine , 11.1 % were have bad knowledge on it , 13.6 % were not sure of their knowledge.

Table.11. Does vaccine cause serious life threat

	Frequency	Percentage
Yes	12	14.8
No	54	66.7
Don't know	15	18.5
	81	100.0

In above table 14.8% people have thought vaccine can cause life threat, 66.7 % denied, 18.5%

Table.12. Avoidance of vaccine due to fear:- by respondents

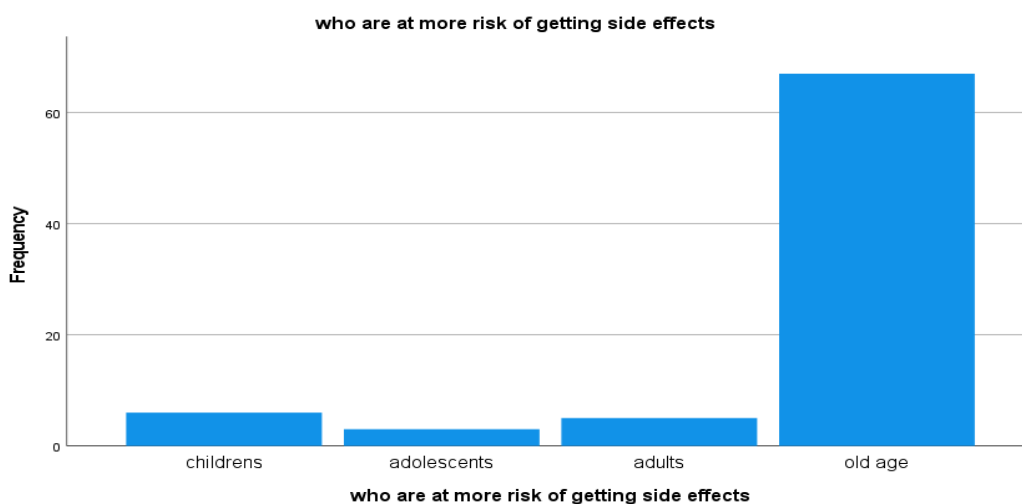
	Frequency	Percentage
Yes	20	24.7
No	56	69.1
dont know	5	6.2
	81	100.0

In above table 24.7 % avoided vaccine due to fear, 69.1% people were not afraid of it , 6.2 % people were not sure

Table.13. Thought of getting covid infection after vaccination:- view of respondents

	Frequency	Percentage
Yes	32	39.5
No	40	49.4
don't know	9	11.1
	81	100.0

In above table 39.5 % thought that they can get infection even after vaccination, 49.4% people denied , 11.1 % were not sure

Figure.6.Respondent view on who are at more risk of getting side effect

In above figure 7.4% of respondent had view as vaccine is risky for childrens ,3.7 % voted for adolescents , 6.2% for adult , 82.7% for old people.

Table.14.Were respondents worried about vaccine side effect

	Frequency	Percentage
Yes	45	55.6
No	36	44.4
	81	100.0

In above table 55.6% people were worried about vaccine, 44.4% were not worried.

Table.15.Covid vaccine is haram?;-view of respondents

	Frequency	Percentage
Yes	4	4.9
No	77	95.1
	81	100.0

In above table 4.9 % people thought vaccine is haram, 95.1% thought it is not.

Table.16.Vaccine will cause infertility?-view of respondents

	Frequency	Percentage
Yes	6	7.4
No	75	92.6
	81	100.0

In above table 7.4% people thought will cause infertility, 92.6% does not hold such thoughts

Table.17.Like all other vaccine covid vaccine does not offer perfect protection :- view of respondents

	frequency
Yes	27
No	54
	81

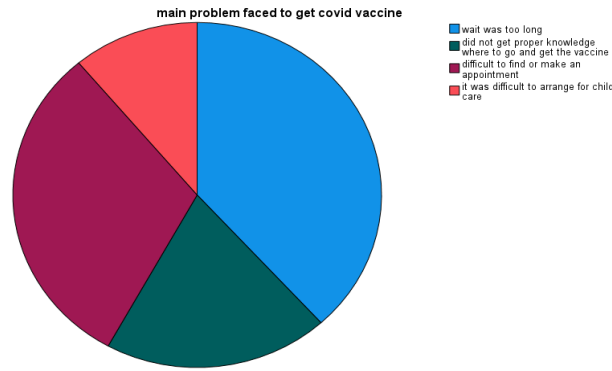
In above table 33.3% people thought vaccine does not provide perfect protection, 66.7 % denied that

Table.18.Were respondents were covid positive after 1st dose

	Frequency	Percentage
Yes	5	6.2
No	76	93.8
	81	100.0

In above table 6.2 % people got Covid positive after 1stdose , 93.8% were uninfected ,

Figure.7.Main problem faced to get covid vaccine by respondent



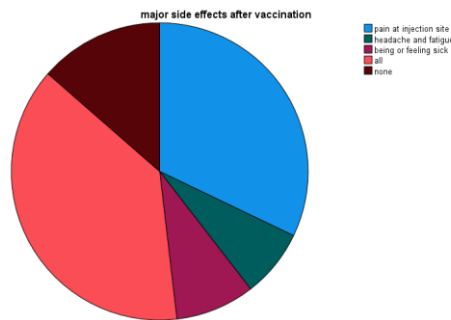
In above figure 38.3% faced problem to get vaccine as their wait was too long , 19.8% haven't got information to get vaccine , 30.9% marked that it was difficult for them to make appointment for vaccine , 11.1% said it was difficult to make vaccine available for children.

Table.19. Did respondents know anyone who died after taking vaccine

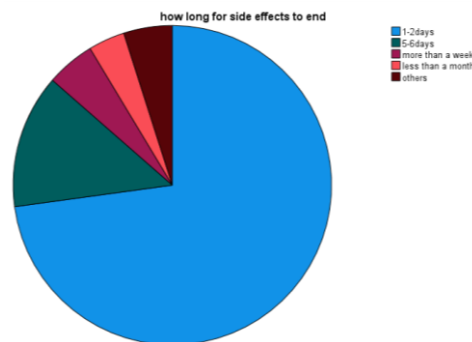
1.	2. Frequency	3. Percentage
4. Yes	5. 31	6. 38.3
7. No	8. 50	9. 61.7
10.	11. 81	12. 100.0

In above table 38.3% people know someone who died because of vaccine , and 61.7 were unaware

Figure.8. Major side effects after vaccination for respondent

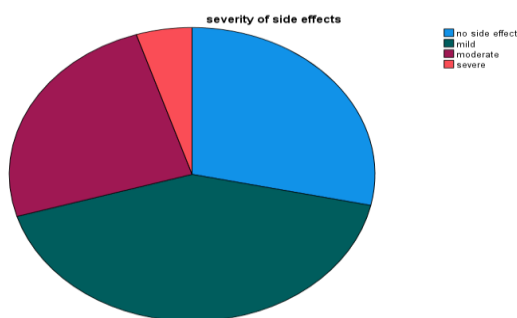


In above figure 32.1 % had pain at site of injection , 7.4% had headache and fatigue , 8.6% felt sick , 38.3% got pain headache and fatigue with sickness , 14.2 % got no side effect



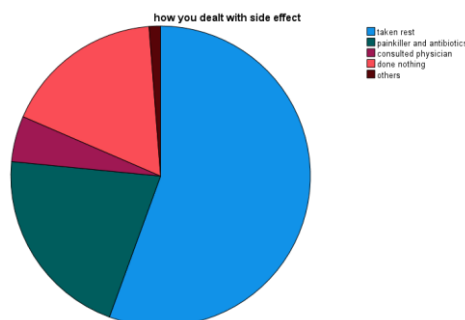
In above figure for 72.8% side effect lasted for 1-2 days, for 13.6% 5-6 days, for 4.9% respondent it lasted for more then week, and for 3.7% of respondent it lasted for less than month, for 4.9 % it was other.

Figure.9. Severity of side effects in respondent



In above figure 28.4 % respondent got no side effect, 42% got mild effect, 24.7% got moderate effect, 4.9 % got severe effect.

Figure.10. how respondent dealt with side effect



In above figure 55.6% of respondent took rest , 21% took medicine, 4.9% consulted doctor , 17.3% done nothing , 1.2 % did something other.

Table.20. Respondent who covid after being fully vaccinated

	Frequency	Percentage
Yes	30	37.0
No	51	63.0
	81	100.0

In above table 37% got Covid after being vaccinated, 63% haven't got Covid after vaccination.

Table.21. Were respondent concerned when didn't get any side effect

	Frequency	Percentage
Yes	11	13.6
No	70	86.4
	81	100.0

In above table 13.6 % respondent was concerned when they haven't got side effect after being vaccinated.

Table.22. Did respondent got any trouble in daily routine

	Frequency	Percentage
Yes	8	9.9
No	70	86.4
don't know	3	3.7
	81	100.0

In above table 9.9 % respondent got trouble in daily routine after being vaccinated, 86.4% were normal. 3.7 % were not sure.

Table.23. Did respondent got allergy after vaccine

	Frequency	Percentage
Yes	3	3.7
No	74	91.4

don't know	4	4.9
	81	100.0

In above table 3.7% respondent got allergy after vaccination, 91.4 % were normal, 4.9% were not sure

Table.24. Have respondent visited the doctor after getting vaccine SE

	Frequency	Percentage
Yes	9	11.1
No	72	88.9
	81	100.0

In above table 11.1 % of respondent visited doctor after getting side effect.

Table.25. Have respondent recommended other people for vaccination

	Frequency	Percentage
Yes	72	88.9
No	9	11.1
	81	100.0

In above table 88.9 % respondent recommended other people to take vaccination

Table.26. Was the vaccine safe?:-view of respondents

	Frequency	Percentage
Yes	77	95.1
No	4	4.9
	81	100

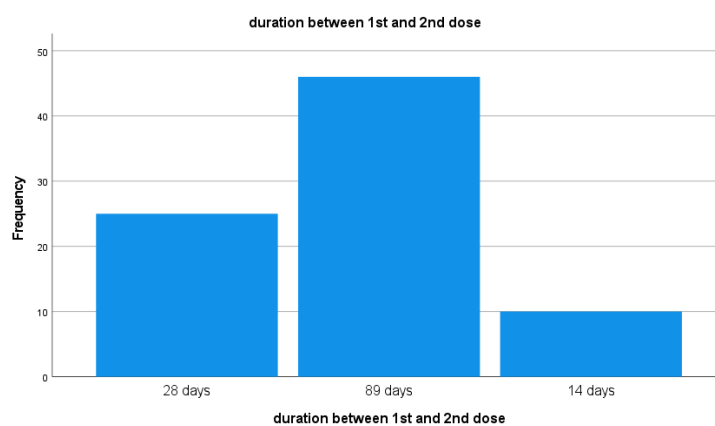
In above table 95.1% of respondent agreed for statement of vaccine being safe

Table.27. Have respondents got vaccine free of cost

	Frequency	Percentage
Yes	76	93.8
No	5	6.2
	81	100.0

In above table 93.8% of respondent took vaccine free of cost.

Figure.11. Duration between 1st and 2nd dose of respondent



In above figure 30.9% of respondent took vaccine in duration of 28 days 56.8% in 86 days 12.3% in 14 days

Table.28. Were respondents checking BP and temp after getting vaccine

13.	14. Frequency	15. Percentage
16. Yes	17. 20	18. 24.7
19. No	20. 61	21. 75.3
22.	23. 81	24. 100.0

Above table shows that 24.7% of respondent were checking their BP and temperature even after getting vaccinated whereas maximum 75.3% did not check their vital sign after getting vaccinated.

CONCLUSION

While the perception of most of the students reported that they were worried regarding the side-effects of the COVID-19 vaccine, a significant proportion of the study participants have reported that they perceive COVID-19 vaccine will have life-threatening side-effects. Such fears have also played a role in affecting vaccine uptake. Therefore, the Ministry of Health, and other concerned government bodies should create further awareness on COVID-19 vaccine and related safety issues.

Majority 55.6% of the respondent reported that they were worried about side effect of COVID-19 vaccine 75.3% of respondent perceive that COVID-19 vaccine does not cause infection

RECOMMENDATION

1. Such research should be done in large scale .
2. It should be made comparison between local and international students.
3. There should be more training and awareness about COVID-19 among medical students.

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