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ORIGINAL RESEARCH

Assessment of knowledge, attitude, and awareness toward the COVID-19 vaccine

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Abstract
The only ray of hope against COVID-19 infection is mass vaccination, which has been adopted by different populations. The present study was conducted to assess knowledge, attitude, and awareness toward the COVID-19 vaccine.
Materials & Methods: 130 subjects of both genders were provided a questionnaire and responses regarding sociodemographic details, COVID-19, and vaccination status, awareness, attitude, and practice regarding COVID-19 vaccination were recorded.
Results: 55% had information about the severity of COVID-19 and its symptoms; 20% did not; 10% strongly disagreed, and 5% disagreed. COVID-19 is a serious disease, according to 60% of those who agreed, 20% who strongly agreed, 10% who strongly disagreed, and 10% who disagreed.75% replied that vaccination against COVID-19 protects against infection from COVID-19; 10% strongly agreed, 10% strongly disagreed, and 5% disagreed. 70% were aware that COVID-19 vaccination could protect against COVID-19, with 10% strongly agreeing, 10% strongly disagreeing, and 10% disagreeing.65% replied that the COVID-19 vaccine is safe, 20% strongly agreed, 5% strongly disagreed, and 10% disagreed. 50% agreed that the Covid-19 vaccine can cause COVID-19, 20% strongly agreed, 15% strongly disagreed, and 15% disagreed.72% replied that there are chances of getting COVID-19 even after vaccination. 8% strongly agreed, 5% strongly disagreed and 5% disagreed. The difference was significant (P 0.05). 85% adhere to social distancing protocols, 90% adhere to hand hygiene protocols, and 92% adhere to masking protocols; 60% report no side effects after vaccination; and 76% avoid social gatherings even after receiving the COVID-19 vaccine. The difference was significant (P 0.05).
COVID-19 infection can be prevented by adopting universal precautions. There was adequate knowledge, attitude, and awareness, of the COVID-19 vaccine in Bathinda.
Keywords-

Introduction

The World Health Organization declared COVID-19 as a pandemic on March 11, 2020. Over 200 countries have already been affected by the pandemic. This highly contagious disease has become a burden for the world. One million COVID-19 cases and deaths have made the situation uncertain. Global communities continue to battle the public health crisis arising

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from the long-term pandemic. It has also triggered formidable socio-economic and psychological impacts. 2

The best way to prevent infection from COVID-19 is to avoid exposure to the virus through public health measures like physical distancing, use of masks, hand hygiene, respiratory hygiene, prompt self-isolation, and prompt testing, but people are reluctant to take these measures for a longer period. 3 The only ray of hope is mass vaccination against COVID-19, which has been adopted by different population groups differently, as we have seen with other vaccination drives in India. It is known that vaccine hesitancy is a serious public health problem that needs a lot of research by many different groups of people to fully understand what causes it.4

During the COVID-19 pandemic, social media platforms have become a common source of health information, and people use social media to improve their knowledge about the disease, transmission, prevention, and treatment mechanisms. 5 The present study was conducted to assess knowledge, attitude, and awareness toward the COVID-19 vaccine.

Materials and Methods

The present study was comprised of 130 subjects of both genders. All were informed regarding the study and their written consent was obtained.

Data such as name, age, gender, etc. were recorded. A questionnaire was prepared and responses regarding sociodemographic details and COVID-19 and vaccination status, awareness, attitude, and practice regarding COVID-19 vaccination were recorded. The data thus obtained was subjected to statistical analysis. A P value of 0.05 was considered significant.

Results

Table 1 shows the patient distribution.

Parameters	**Variables**	**Number**	**P value**
Gender			
Male		60	0.92
Female		70	
Residence			
Rural		80	0.05
Urban		50	
Educational status			
Matric		35	

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0.72

High
55

Graduation
40

Occupation
Labourer
65
0.05

Officer
40

Private
20

Table I shows that out of 130 subjects, 60 were males and 70 were females. In 80 cases, the residence was rural, while in 50 cases, it was urban. Educational status: matric in 35, high school in 55, and graduation in 40. In 65, the occupation was laborer, in 40, officer, and in 20 it was private. The difference was significant (P 0.05).

Table II: COVID-19 vaccination awareness and knowledge
Parameters
Variables
%
P value

information about the severity of COVID-19 and its symptoms?
Yes
55%
0.01

No
20%

I strongly disagree.
10%

Disagree
5%

Is COVID-19 a serious disease?
Agree
60%
0.04

strongly agree.
20%

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I strongly disagree.
10%

Disagree
10%

Vaccination against COVID-19 protects you from infection with COVID-19.
Agree
75%
0.05

strongly agree.
10%

I strongly disagree.
10%

Disagree
5%

COVID-19 Vaccination can protect people from COVID-19.
Agree
70%
0.02

strongly agree.
10%

I strongly disagree.
10%

Disagree
10%

Is the COVID-19 vaccine effective?
Agree
65%
0.01

strongly agree.
20%

I strongly disagree.
5%

Disagree
10%

You can get COVID-19 from the COVID-19 vaccine.
Agree

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50%
0.05

strongly agree.
20%

I strongly disagree.
15%

Disagree
15%

Possibility of contracting COVID-19 even after vaccination
Agree
72%
0.01

strongly agree.
18%

I strongly disagree.
5%

Disagree
5%

Table II, graph I show that 55% had information about the severity of COVID-19 and its symptoms, 20% had not, 10% strongly disagreed and 5% disagreed. COVID-19 is a serious disease, according to 60% of those who agreed, 20% who strongly agreed, 10% who strongly disagreed, and 10% who disagreed.75% replied that vaccination against COVID-19 protects against infection from COVID-19; 10% strongly agreed, 10% strongly disagreed, and 5% disagreed. 70% were aware that COVID-19 vaccination could protect against COVID-19, with 10% strongly agreeing, 10% strongly disagreeing, and 10% disagreeing.65% replied that the COVID-19 vaccine is safe, 20% strongly agreed, 5% strongly disagreed, and 10% disagreed. 50% agreed that the Covid-19 vaccine can cause COVID-19, 20% strongly agreed, 15% strongly disagreed, and 15% strongly disagreed.72% replied that there are chances of getting COVID-19 even after vaccination. 18% strongly agreed, 5% strongly disagreed, and 5% disagreed. The difference was significant (P 0.05).

Graph I: COVID-19 vaccination awareness and knowledge

Table III: COVID-19 vaccination practice.
Practice
Variables
Number
P value

Follow the protocols of social distancing.
Yes
85%
0.02

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No
15%

Follow protocols for hand hygiene.
Yes
90%
0.01

No
10%

mask-wearing procedures
Yes
92%
0.01

No
8%

No side effects after vaccination:
Yes
60%
0.05

No
40%

Even after the COVID-19 vaccine, I avoid social gatherings.
Yes
76%
0.04

No
24%

Table III, graph II shows that 85% follow protocols of social distancing, 90% follow protocols of hand hygiene, 92% follow protocols of wearing masks, 60% reply that there are no side effects after vaccination, and 76% avoid social gathering even after the COVID-19 vaccine. The difference was significant (P 0.05).

Graph II: COVID-19 vaccination practice.

Discussion

People within and across different cultures and geographies are reacting differently to COVID-19. Understanding perceptions and reactions of relevant populations during pandemics may help in communication about health risks and encourage compliance with prescribed guidelines. Knowledge, attitude, and practice (KAP) surveys can be used to establish a baseline or to evaluate intervention-related changes in public understanding, thoughts, and skills. Experts suggest that time-to-time measurement of knowledge and practices in the community may be pertinent in averting future waves of this deadly

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pandemic. 9 The present study was conducted to assess knowledge, attitude, and awareness toward the COVID-19 vaccine.

We found that out of 130 subjects, males were 60 and females were 70. In 80 cases, the residence was rural, while in 50 cases, it was urban. In 80 cases, the residence was rural, while in 50 cases, it was urban. Educational status:status: matric in 35, high school in 55,55, and graduation in 40. In 65, the occupation was laborer, in 40, officer, and in 20 it was private. In 65, the occupation was laborer, in 40, officer, and in 20 it was private. Nazir et al. (10) found that the mean scores of awareness regarding COVID-19 disease and its vaccination were 3.68 0.44, with overall awareness ofof73.6%, a 73.6%, a positive attitude was 3.53 0.41, with an overall positive attitude of 70.6%, and good practice towards adopting COVID-19 appropriate behavior and vaccination was 3.43 + 0.71,0.71, with an overall good practice of 68.6%,68.6%, respectively. Participants with higher awareness regarding COVID-19 disease and its vaccination were 9.1 times (95% C.I = 5.16–14.325.16–14.32) more likely to have a positive attitude towards using COVID-19 appropriate behavior and its vaccination and 7.8 times (95% C.I = 4.62-13.83) adopting good practice than those with a low level of awareness.

We observed that 55% had information about the severity of COVID-19 and its symptoms, 20% had not, 10% strongly disagreed and 5% disagreed. COVID-19 is a serious disease, according to 60% of those who agreed, 20% who strongly agreed, 10% who strongly disagreed, and 10% who disagreed.75% replied that vaccination against COVID-19 protects against infection from COVID-19; 10% strongly agreed, 10% strongly disagreed, and 5% disagreed. 70% were aware that COVID-19 vaccination could protect against COVID-19, with 10% strongly agreeing, 10% strongly disagreeing, and 10% disagreeing.65% replied that the COVID-19 vaccine is safe, 20% strongly agreed, 5% strongly disagreed, and 10% disagreed. 50% agreed that the Covid-19 vaccine can cause COVID-19, 20% strongly agreed, 15% strongly disagreed, and 15% strongly disagreed.72% replied that there are chances of getting COVID-19 even after vaccination. 18% strongly agreed, 5% strongly disagreed, and 5% disagreed.

We discovered that 85% adhere to social distancing protocols, 90% adhere to hand hygiene protocols, 92% adhere to masking protocols, 60% responded that there are no side effects after vaccination, and 76% avoid social gatherings even after receiving the COVID-19 vaccine. We discovered that 85% adhere to social distancing protocols, 90% adhere to hand hygiene protocols, 92% adhere to masking protocols, 60% responded that there are no side effects after vaccination, and 76% avoid social gatherings even after receiving the COVID-19 vaccine. We discovered that 85% adhere to social distancing protocols, 90% adhere to hand hygiene protocols, 92% adhere to masking protocols, 60% responded that there are no side effects after vaccination, and 76% avoid social gatherings even after receiving the COVID-19 vaccine. Rahman et al. (2011) found that a total of 449 university students participated. Most of these students used the internet (34.74%), social media (33.41%), and electronic media (25.61%) as a source of COVID-19 vaccine information. Overall, 58.13% and 64.81% of university students reported positive knowledge and attitude towards the COVID-19 vaccine. 54.34% of these students agreed that the COVID-19 vaccine is safe and effective. 43.88% believed that the vaccine could stop the pandemic. The negative correlation was determined between positive knowledge and hesitancy and positive attitude and hesitancy. University students with positive knowledge and attitudes showed lower hesitancy. Multiple logistic regression analyses determined the university type and degree major as the predictors of knowledge, whereas only the degree major was the predictor of attitudes. 26.06% of the study population showed hesitancy toward the vaccine. University type and degree major were also determined as predictors of this hesitancy. Fear of side effects (87.18%) and a lack of information (70.94%) were cited as the primary causes of hence. Fear of side effects

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(87.18%) and a lack of information (70.94%) were cited as the primary causes of hence. Fear of side effects (87.18%) and a lack of information (70.94%) were cited as the primary causes of hence.
The study's s limitation is the small sample size.

Conclusion

The authors discovered that by taking universal precautions, COVID-19 infection can be avoided. The authors discovered that by taking universal precautions, COVID-19 infection can be avoided. The authors discovered that by taking universal precautions, COVID-19 infection can be avoided. There was adequate knowledge, attitude, and awareness of the COVID-19 vaccine.

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