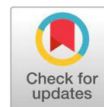


## Research Article

## Open Access

# Evaluation of Effective Usage of Facemask and Level of Comfort Among College Students During Covid Pandemic



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## ABSTRACT

Coronavirus disease (COVID-19) is a virus-borne infection caused by the SARS-CoV-2 viral. Most patients infected with the virus will have mild to severe respiratory sickness and will recover without needing any specific therapy. The fact that wearing face masks inhibits SARS-CoV-2 transmission is quickly becoming widespread among the general public. The study aimed to evaluate the effective usage of facemask and level of comfort among college students during COVID Pandemic. Exploratory research design was used for the study. A sample of 200 students from various colleges of MPUAT, Udaipur were selected using random sampling design. A self-structured questionnaire was developed to collect the data. The results revealed that most of the students have good knowledge level of corona virus and its prevention. Majority of students are familiar with surgical masks and cloth masks and expressed that among all respiratory masks are more efficient in blocking corona virus particles.

**Keywords:** Face masks, College students, COVID 19

## Introduction

The Covid-19 pandemic, also known as the Coronavirus pandemic, is an ongoing global pandemic of Corona virus disease 2019 (Covid-19) caused by Severe Acute Respiratory Syndrome Corona Virus (SARS-CoV-2) which was originally discovered in an epidemic in Wuhan, China, in December 2019. Attempts to contain it there failed, which allowed it to spread to other parts of the world.

The majority of corona virus infected individuals will have a mild to severe respiratory diseases and will recover without the need for special care. However, some people will get serious illnesses and need to take medical facilities. Serious sickness is more likely to strike older persons and those with underlying health problems including cancer, diabetes, cardiovascular disease, or chronic respiratory diseases. Covid-19 can cause anyone to get very ill or pass away at any age, however, being knowledgeable about the illness and the virus's propagation is the greatest strategy to stop or slow down transmission. This can be achieved by following guidelines given by WHO regarding Covid-19 preventive measures such as maintaining a distance of at least one meter with people, using a mask that fits properly, washing or sanitizing hands regularly, getting vaccinated, staying at home, isolating from others if the symptoms are noticed in person, following hygiene practices like frequently disinfecting or cleaning most touched areas like faucet handles, mobiles, door knobs etc., to prevent a person from getting

infected and infecting other people (4).

The effectiveness of community mask usage to prevent the transmission of respiratory diseases was unclear earlier to the coronavirus infection 2019 (COVID-19) outbreak, since there was insufficient reliable evidence to support their efficiency or use. The scientific proof has grown during the epidemic and presently, convincing results shows that community mask use is an effective non pharmacological measure to stop the spread of this illness, particularly as source control to stop transmission from sick people but also as protection to lower users exposure to corona virus infection (1,2)

## Methodology

An exploratory research design was used for the study. Five constituent colleges of the Maharana Pratap University of Agriculture and Technology in Udaipur (Rajasthan) were selected as the study locale. Random sampling technique was used for the selection of sample. A total of 200 students (100-girls and 100-boys) had been selected from 5 colleges of MPUAT, Udaipur. A Self structured questionnaire was developed by the researcher considering the objectives of the present study and sample, in order to gather data from students.

## Results and Discussion

This section discussed student's awareness regarding facemasks and Covid-19, as well as their level of comfort while donning them, preferred mask-wearing intervals and confidence in using them effectively to prevent Covid-19 infection.

## Information about Students who tested Covid positive.

The data from table 1 shown that the majority of students from boys (53%) category have never tested covid positive, followed by 40% and 6% of respondents were tested positive once and twice respectively and 1% of student tested positive more than

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DOI: <https://doi.org/10.58321/AATCCReview.2023.11.04.106>  
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twice. While majority of students from the girl's category (79%) have never tested positive, whereas only 18% and 3% tested positive once and twice respectively. The results were found to be similar to study (3) in which it was reported that safety practices against covid-19 were greatly opted by females when compared with males.

**Table 1. Frequency and percentage distribution of students on the basis of no. of times they have tested covid positive.**

S. No.	No. of times tested Covid positive	Boys, n=100		Girls, n=100	
		Freq.	%	Freq.	%
1	More than twice	1	1	0	0
2	Twice	6	6	3	3
3	Once	40	40	18	18
4	Never	53	53	79	79
<b>Total</b>		100	100	100	100

#### Awareness level related to preventing measures of corona virus infection.

According to Table 2, the majority of the boys (41%) rated their knowledge of covid-19 and its preventive measures as very good, while 39% rated their knowledge as good, followed by 15% and 5% with average and poor knowledge, respectively while in female respondents majority (48%) believed their knowledge level regarding covid-19 and its preventive measures was very high, the remaining students 42% with high knowledge, 7% with average knowledge, 1% with poor knowledge, and 2% with very poor knowledge.

**Table 2. Frequency and percentage distribution of students based on their knowledge level related to preventing measures of corona virus infection**

S. No.	Knowledge level	Boys, n=100		Girls, n=100	
		Freq.	%	Freq.	%
1	Very poor	0	0	2	2
2	Poor	5	5	1	1
3	Average	15	15	7	7
4	Good	39	39	42	42
5	Very good	41	41	48	48
<b>Total</b>		100	100	100	100

#### Confidence level in properly wearing a facemask among students

According to table 3, the majority of the students (39%) boys were very confident about wearing a facemask properly against covid-19, while (38%) expressed that they were highly confident, 15% with average confidence, and 8% were not confident.

While the majority of female respondents (54%) believed their confidence level in donning a facemask was very high, the remaining 34% were highly confident, and 12% thought their confidence level was average.

**Table 3. Frequency and percentage distribution of students based on their confidence level in properly wearing a facemask**

S. No.	Confidence level	Boys, n=100		Girls, n=100	
		Freq.	%	Freq.	%
1	Very low	0	0	0	0
2	Low	8	8	0	0
3	Average	15	15	12	12
4	High	38	38	34	34
5	Very high	39	39	54	54
<b>Total</b>		100	100	100	100

#### Familiarity of the kind of masks

As per the Table 4, majority of the boys (73%) who responded to the survey were familiar with surgical/medical masks and 72% with cloth masks, while 65% were familiar with respiratory masks like N95s, FFP's and 12% with activated carbon masks. While the majority of the girls (80%) who responded to the survey were familiar with surgical/medical masks and 88% with cloth masks, while 75% were familiar with respirator masks like N95s, FFP's and 17% with activated carbon masks.

**Table 4. Frequency and percentage distribution of students based on the kind of mask students they are familiar with**

S. No.	Mask types	Boys, n=100		Girls, n=100	
		Freq.	%	Freq.	%
1	Respiratory masks-N95)	65	65	75	75
2	Surgical/Medical masks	73	73	80	80
3	Activated carbon masks	12	12	17	17
4	Cloth masks	72	72	88	88

(Multiple responses were accepted from students)

#### Knowledge of students regarding type of mask that is more efficient in blocking corona virus particles

The results from table 5 showed that the majority (80%) of boys agreed that respiratory masks are more efficient in blocking corona virus particles, followed by 11% and 9% expressed that surgical or medical masks and cloth masks respectively are more efficient in blocking corona virus particles.

In the case of girls responses it can be seen that 67% believed that respirators acts more efficiently in blocking corona virus particles followed by 18% and 15% believed that surgical/medical masks and cloth masks respectively are more efficient in blocking corona virus particles.

**Table 5. Frequency and percentage distribution of student knowledge regarding type of mask that is more efficient in blocking corona virus particles**

S. No.	Masks	Boys, n=100		Girls, n=100	
		Freq.	%	Freq.	%
1	Respiratory masks (N95)	80	80	67	67
2	Surgical or Medical masks	11	11	18	18
3	Cloth masks	9	9	15	15
<b>Total</b>		100	100	100	100

#### Duration of wearing a mask followed by students.

According to the data in Table 6, 48% of the respondents from the boys group believed that a facemask can be used for a day ideally, 16% believed that 4 hours is the ideal time a facemask can be used safely, a similar percentage of students 13% believed that a facemask can be worn for 8 hours to 12 hours, and the remaining 10% were unaware of the ideal time a facemask can be used continuously.

It can be noticed that in the girls group 28% believed that a facemask can be used for a day ideally, 27% believed that 4 hours is the ideal time a facemask can be put on safely, while 26% said that facemask can be worn for 8 hours, 11% believed that a facemask can be worn up to 12 hours, and the remaining 8% were unaware of the ideal time, a facemask can be used continuously.

**Table 6. Frequency and percentage distribution of student's perception regarding duration of wearing a mask**

S. No.	Duration	Boys, n=100		Girls, n=100	
		Freq.	%	Freq.	%
1	Up to 4 hours	16	16	27	27
2	Up to 8 hours	13	13	26	26
3	Up to 12 hours	13	13	11	11
4	1 day	48	48	28	28
5	I don't know	10	10	8	8
<b>Total</b>		100	100	100	100

### Conclusion

The study concludes that the majority of the boys (41%) and girls (48%) knowledge regarding covid-19 and its preventive measures as very good and were very confident about wearing facemasks properly against covid-19. Students are familiar with surgical/medical masks, cloth masks, respiratory masks like N95s, FFP's, activated carbon masks. The majority of boys (80%) and girls (67%) agreed that respiratory masks are more efficient in blocking corona virus particles.

**Future scope of the study** This study is useful in providing information regarding college student's knowledge on various aspects of facemasks and Covid-19. A similar type of study can be done on school-going children etc. to know the awareness level on usage of masks

**Acknowledgements** I would like to thank all the respondents in the study for their cooperation.

**Conflict of interests** Authors have declared that no conflict of interests exists.

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