SJIF Impact Factor: 5.464

WORLD JOURNAL OF ADVANCE HEALTHCARE RESEARCH

ISSN: 2457-0400
Volume: 4.
Issue: 3.
Page N. 215-219
Year: 2020

Original Article www.wjahr.com

KNOWLEDGE AND PERCEPTION REGARDING NOVEL CORONAVIRUS: A SURVEY FOR THE GENERAL PUBLIC

Mohit Sharma*[1] and Dr. Smriti Arora[2]

[1]M.Sc. Nursing, Amity College of Nursing, Amity University, Haryana, India.
[2]Professor, Amity College of Nursing, Amity University, Haryana, India.

Received date: 31 March 2020 **Revised date:** 21 April 2020 **Accepted date:** 12 May 2020

***Corresponding author: Mohit Sharma**

M.Sc. Nursing, Amity College of Nursing, Amity University, Haryana, India.

ABSTRACT

Introduction: With over three million affected cases, most of the countries in the world are facing the big challenge in the form of the novel coronavirus. Different strategies are adopted by the governments to tackle this pandemic in the form of public awareness, lockdown, etc. The role of the general public is very crucial in the fight with this outbreak. The aim of the study was to assess the knowledge and perception of general public regarding novel coronavirus. **Methods:** A cross-sectional, web based survey was conducted among the general public of India, including 156 participants with voluntary participation in the last week of April 2020. A survey instrument was used for assessing the knowledge and perception of the participants towards novel coronavirus. **Results:** Descriptive statistics was used for analysis. Majority of the participants were students and 18-24 years of age. The mostly used sources of information were news, media and government official websites. Majority of the participants (53.20%) were having poor knowledge regarding the disease whereas about two third of the participants (69.20%) showed a good perception towards the disease. **Conclusion:** There is a need for knowledge improvement in the general public to face the ongoing challenges related to the novel coronavirus when a lot of wrong information is being circulated on various whatsapp groups.

KEYWORDS: Novel coronavirus, knowledge, perception, outbreak, pandemic.

INTRODUCTION

The behaviour of the generally public definitely influences the prevention and spread of a disease, which is directly related to the knowledge and perception of the individuals regarding that disease.[1] The outbreak of the current coronavirus began in Wuhan city of China in December 2019.[2] Most of the countries in the world are affected with this Virus. According to WHO data, there are 3,272,202 cases of coronavirus with 230,104 deaths as reported on 2 may 2020.[3] As a result, considering the rapid disease transmission of coronavirus within and across the countries, on 11 March 2020, WHO had declared the coronavirus outbreak as a global pandemic.[4] The first coronavirus was identified in 1965, which caused common cold. Later on scientists found a group of similar type of viruses with crown like appearance that can affect human and animals.[5] The most common symptoms of current coronavirus are fever, headache, tiredness and dry cough, while some patients may get aches and pains, nasal congestion, runny nose, sore throat or diarrhea.[2] According to experts, the new coronavirus originated from bats with 2-14 days of incubation period. There are over 25000 active cases of coronavirus in India on 2nd may 2020, according to government records.[6] During this global pandemic the awareness of the public regarding the disease and its prevention is necessary, so the researcher felt the need for the survey.

AIM

This cross-sectional survey was conducted to assess the knowledge and perception of general public regarding the novel coronavirus.

METHODS

A web based cross-sectional study was conducted using a survey instrument to assess the responses of general public in India during last week of April 2020.

A total of 156 participants participated in the survey from different states of India.

Tools and techniques: Web based Survey instrument designed on Google document consisted of 7 objective responses to assess the knowledge of general public and 7 true/false statements to assess their perceptions towards the novel coronavirus. The developed survey instrument was assessed for validity and reliability (Cronbach alpha-0.82).

The maximum score of knowledge component was seven and minimum score was zero. A cut-off level of ≤4 was considered to indicate poor knowledge regarding novel coronavirus whereas >4 was considered adequate knowledge regarding novel coronavirus.

The maximum perception score was seven while the minimum perception score was zero. Good perception was considered with score >5 and poor perception was considered with score ≤5.[7]

Data collection process

The data was collected using Google document, link was created and circulated with the help of whats app. The participation was voluntary and confidentiality was maintained and participants were informed that they can withdraw from the study at any stage. Informed consent was obtained from each participant prior to the participation.

RESULTS

Data was organised in excel sheet. Descriptive statistics was used for the data analysis with the help of SPSS 16.0 for frequency percentage distribution.

Table 1: Frequency and percentage of socio demographical characteristics of participants.

N=156

Variable		Categories		f(%)
1.	Gender	a)	Male	77(49.40%)
		b)	Female	79(50.60%)
2.	Age	a)	18-24	84(53.80%)
		b)	25-34	64(41%)
		c)	35-44	8(5.10%)
3.	Profession	a)	Student	74(47.40%)
		b)	Teacher	9(5.80%)
		c)	Nursing officer	37(23.70%)
		d)	Health professional	14(9%)
		e)	Others	22(14.10%)
4.	Heard about Novel	a)	Yes	146(93.60%)
	coronavirus	b)	No	10(6.40%)
5.	Attended lectures/discussions	a)	Yes	102(65.40%)
	about Novel coronavirus	b)	No	54(34.60%)

Related to socio demographical variables

Table 1 shows the frequency and percentage of the socio demographical variables of the study participants. A total of 156 participants participated in the survey of which(49.40%) participants were males while (50.60%) participants were females. More than half of the study participants were between 18-24 years of age (53.80%), while 41% were between 25-34 years of age. Majority of the respondents were students(47.40%),23.7% were Nursing officers, nine percent were other health professionals like doctor, lab technician, etc,5.8% were teachers. 14.1% of the participants were from other professions like engineer, housewives, gym manager, etc. Most of the participants (93.60%)had heard about novel coronavirus and 65.40% said that they have attended lectures or discussions related to novel coronavirus.

Table 2: Different sources used by participants for information related to novel coronavirus.

N=156

Source	Least used	Sometimes	More often	Most used
1. News, Media	28(17.90%)	12(7.70%)	44(28.20%)	72(46.20%)
2. Social media	22(14.10%)	28(17.90%)	52(33.30%)	54(34.60%)
3. Official government websites	31(19.90%)	25(16%)	37(23.70%)	63(40.40%)
4. Family members and friend	26(16.70%)	35(22.40%)	37(23.70%)	58(37.20%)

Related to sources of information regarding novel coronavirus

Table 2 depicts that the primary source of information used by most of the participants were News, media reports (46.2%) and official government websites (40.4%).34.6% of study participants reported that social media (facebook, whatsapp, twitter, etc.) is mostly used by them for information related to novel coronavirus while 37.2% received information from mostly discussed

about novel coronavirus with the family members, relatives and friends.

Table 3: Frequency and percentage of responses of participants related to knowledge regarding novel coronavirus.

N=156

Statements	Correct response f(%)	Incorrect response f(%)
1. The incubation period of novel coronavirus (SAR-COV-19) is 2-14 days	69(44.2)	87(55.8)
2. Skin rash is not a symptom of novel coronavirus (SAR-COV-19)	78(50)	78(50%)
3. Novel coronavirus (SAR-COV-19) origin is thought to be from bats	117(75)	39(25%)
4. Novel coronavirus (SAR-COV-19) can be transmitted through air, contact, feco-oral routes	71(45.5)	85(54.5)
5. Pneumonia, respiratory failure and death are complications of novel coronavirus (SAR-COV- 19)	19(76.3)	37(23.7)
6. Supportive care is the treatment of novel coronavirus (SAR-COV-19)	73(46.8)	83(53.2)
7. Hand hygiene, covering nose and mouth while coughing, and avoiding sick contacts can help inreducing the risk of transmission of novel coronavirus	138(88.5)	18(11.5)

Related to knowledge regarding novel coronavirus

Table 3 shows the knowledge of participants regarding novel coronavirus, half of the participants (50%) agreed that skin rash is not a symptom of coronavirus, around three-fourth of the participants agreed that the novel coronavirus originated from bats and, pneumonia, respiratory failure and death, all are the complications of coronavirus. A majority of participants(88.50%) agreed that maintaining hand hygiene, covering the nose and mouth when coughing, avoiding sick contacts and having well-cooked meat and eggs can reduce the risk of coronavirus transmission. The knowledge of more than half of the participants'regarding incubation period, transmission mode and treatment of novel coronavirus was found inadequate.Overall46.79% participants were having adequate knowledge whereas (53.20%) participants showed poor knowledge regarding the novel coronavirus.

Table 4: Knowledge about novel coronavirus among different professions.

N=156

Professions	Adequate knowledge f(%)	Inadequate knowledge f(%)	Test	Value	df	p
Students (n=74)	30(40.5)	44(59.5)	Fisher exact test	5.567	4	.243
Teachers (n=9)	5(55.6)	4(44.4%)				
Nursing Officers (n=37)	19(51.4)	18(48.6)				
Other Health professionals (n=14)	10(71.4)	4(28.6)				
Others (n=22)	9(40.9)	13(59.1)				

Table 4 depicts that 40.5% students, 55.6% teachers, 51.4 % Nursing officers, 71% other health professional and 40.9% other professionals were having adequate knowledge. There was no statistical significant difference among the different professions with regard to knowledge as assessed by fisher exact test (p=.243).

Table 5: Frequency and percentage of responses of participants related to perception towards novel coronavirus.

N=156

Statement	True	False
1. It is believed that symptoms of the novel coronavirus (SAR-COV-19) may appear in as few as two days or as long as 14 days after exposure	142 (91%)	14 (9%)
2. If anyone gets the novel coronavirus (SAR-COV-19), there is no possibility of survival.	25(16%)	131(84%)
3. A vaccination against flu is sufficient against the novel coronavirus (SAR-COV-19) infection.	44(28.20%)	112(71.80%)
4. Even in areas experiencing outbreaks, meat products can be safely consumed if these items are cooked thoroughly and properly handled during food preparation.	22(14.10%)	134(85.90%)
5. If anyone has a fever, cough and difficulty breathing, they should seek medical care early and share previous travel history with the health care providers.	151(96.80%)	5(3.20%)
6. If anyone works in a "wet market" it is recommended to disinfect the equipment and working area at least once a day.	137(87.80%)	19(12.20%)
7. As per WHO guidelines for the novel coronavirus, you only need to wash your hands when they are visibly dirty.	44(28.20%)	112(71.80%)

Perception about the novel coronavirus

Table 5 depicts that a high majority of participants (91%) agreed that the symptoms can be shown in 2-14 days, novel coronavirus is not fatal (84%),meat products can be safely consumed if these items are cooked thoroughly and properly handled (85.90%), if anyone has a fever, cough and difficulty breathing they should seek medical care early and share previous travel history with the health care providers (96.80%), majority believed that the equipment and working area in wet market must be disinfected at least once a day (87.80%).

Unfortunately few of participants (28.20%) said that flu vaccine is sufficient for novel coronavirus and (28.20%) said that hand washing is only required when hands are dirty.

DISCUSSION

Currently, novel coronavirus (Covid-19) is the most important topic for concern globally, daily thousands of people getting affected with this novel coronavirus along with many deaths. In India also, the virus is affecting people and their live for that different measures are adopted by the government. Lockdown is applied all over the country to stop the transmission of the virus and to break its chain. As it is a public health crisis so people should be well informed about this disease and its preventive measures, so for that we investigated the knowledge and perception of the general public regarding the novel coronavirus during this global pandemic.

Majority of the participants were students with almost equal number of males and females.

Majority of the participants were using news, media and government official websites for the information related to the novel coronavirus.

Majority of participants were agreed that the virus is originated from bats while pneumonia, respiratory failure and death, all are the complications of coronavirus, maintaining hand hygiene, covering the nose and mouth when coughing, avoiding sick contacts and having well-cooked meat and eggs can reduce the risk of coronavirus transmission, while the knowledge of more than half of the participants' regarding incubation period, transmission mode and treatment of novel coronavirus was found poor.

Participants showed a positive perception towards the disease. A high majority of participants agreed that the symptoms can be shown in 2-14 days, novel coronavirus is not fatal, meat products can be consumed if cooked thoroughly and properly handled, person with a fever, cough and difficulty breathing should seek medical care early and share previous travel history with the health care providers, disinfection of the equipments and working area in wet market should be done at least once a day. However around (30%) of participants said that flu vaccine is sufficient for novel coronavirus and hand washing is only required when hands are dirty.

CONCLUSION

A significant gap in the knowledge was found related to certain areas about the novel coronavirus among the participants, as the situation is getting worse day by day, thus there is a strong need for public awareness regarding the disease.

ACKNOWLEDGMENT

We would like to thank all the study participants for their voluntary participation.

REFERENCES

1. Geldsetzer, P., 2020. Knowledge and Perceptions of COVID-19 Among the General Public in the United States and the United Kingdom: A Cross-sectional Online Survey. Annals of Internal Medicine,

[online] Available at: https://annals.org/aim/fullarticle/2763550/knowledge-perceptions-covid-19-among- general-public-united-states-united

2. Mohfw.gov.in. 2020. Mohfw | Home. [online] Available at: https://www.mohfw.gov.in/
3. Covid19.who.int. 2020. WHO COVID-19 Dashboard. [online] Available at: https://covid19.who.int/
4. Gudi, S., Undela, K., Venkataraman, R., Mateti, U., Chhabra, M., Nyamagoud, S. and Tiwari, K., 2020. Knowledge and Beliefs towards Universal Safety Precautions to flatten the curve during Novel Coronavirus Disease (nCOVID-19) Pandemic among general Public in India: Explorations from a National Perspective. [online] Available at: https://www.medrxiv.org/content/10.1101/2020.03.31.20047126v1
5. Coronavirus History: Origin And Evolution.2020. [online] WebMD. Available at: https://www.webmd.com/lung/coronavirus-history
6. Covid19india.org. 2020. Coronavirus In India: Latest Map And Case Count. [online] Available at: https://www.covid19india.org/
7. Bhagavathula, A., Aldhaleei, W., Rahmani, J., Mahabadi, M. and Bandari, D., 2020. Knowledge and Perceptions of COVID-19 Among Health Care Workers: Cross- Sectional Study. JMIR Public Health and Surveillance, [online] 6(2), p.e19160. Available at: https://preprints.jmir.org/preprint/19160