The Journal of Phytopharmacology
(Pharmacognosy and phytomedicine Research)

Ifqa Mushtaq Siddique
M.F.Sc. Scholar, Division of Social Sciences (Fisheries Extension), Faculty of Fisheries, Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir (SKUAST-K), Rangil, Ganderbal, Jammu and Kashmir-190006 India

Rizwana Malik
Assistant Professor, Division of Social Sciences (Fisheries Extension), Faculty of Fisheries, Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir (SKUAST-K), Rangil, Ganderbal, Jammu and Kashmir-190006, India

Adnan Bin Zahoor
M.F.Sc. Scholar, Division of Social Sciences (Fisheries Extension), Faculty of Fisheries, Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir (SKUAST-K), Rangil, Ganderbal, Jammu and Kashmir-190006, India

Assessment of knowledge regarding novel Corona Virus (covid-19) among fishers of Kashmir valley

Ifqa Mushtaq Siddique*, Rizwana Malik, Adnan Bin Zahoor

ABSTRACT

The covid-19 pandemic has become a major public challenge globally. The assessment of knowledge level and awareness regarding covid-19 among fishers who are highly illiterate and under privileged becomes vitally important during this pandemic. The aim of the study was to determine the knowledge, awareness, preventive practices, behavioral change and vulnerability among fishers due to covid-19. The primary data was collected through personal visits. A well structural questioner comprising of 22 close ended questions regarding covid-19was used to collect the data from 80 fisher respondent from 3 fisher dominant areas (viz Moti Mohalla, Taliban, Dobhi ghat) of district Srinagar. The data collected was analyzed using different statistical tools and scales like MS-Excel, PAST-4 and SPSS. The research revealed that despite being illiterate the fisher's knowledge level about covid-19 and measures taken to reduce it were significantly high. The study recorded good knowledge and awareness among respondents, however there is a further need to organize community-based awareness campaigns to enhance the level of knowledge and awareness among the under privileged sections of society.

Keywords: COVID-19, Fishers, Knowledge, Challenge.

INTRODUCTION

Corona viruses are a large family of viruses that causes illness in humans and animals. Several corona viruses have been reported that are responsible for causing infections in humans, ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome and Severe Acute Respiratory Syndrome. The recently discovered novel corona virus SARS-CoV-2 caused the Corona virus Disease 2019 (World Health Organization). Initiating from Wuhan City, (China) on 31st of December 2019, the novel pandemic immobilized the world by posing a great shock to the health of people and economy of the world [1]. On analyzing the devastating extent of the pandemic, World Health Organization declared COVID-19 as a global emergency on 30th of January 2020 [2]. and a pandemic on 11th of march 2020 (Johns Hopkins Corona virus Resource Center [3].

In Kashmir a strict lockdown was imposed from 26th of March 2020, leading the whole capture fisheries to halt. Although Covid-19 does not affect fish, the fish sector is still subjected to indirect impacts of the pandemic through changing consumer demands, market access or logistical problems related to transportation. The aim of the study was to determine the knowledge and awareness regarding covid-19 pandemic among fishers and preventive practices taken to reduce the effect of the pandemic.

MATERIALS AND METHODS

Locus of study area: The present study was carried in District Srinagar of Jammu and Kashmir. The union territory of Jammu and Kashmir falls in Northern India, with Srinagar as summer capital and Jammu as winter capital. There are about 1230 water bodies in entire union territory of Jammu and Kashmir. The major lakes in Srinagar are Dal Lake, Nighen Lake and Anchor Lake, with River Jhelum flowing in the heart of the city.

Selection of study area: District Srinagar was purposively selected for the study as it is one of the major fish producing district of Kashmir and also it was easily accessible during the pandemic. Among the lakes Dal Lake was purposively selected as it is inhabited by majority of fishers. A list of fishers dominant mahalas /areas around Dal Lake was procured from department of fisheries. The department of fisheries has divided Dal Lake into two sub circles, "A" and "B". The sub circle "A" comprises of fisher dominant areas like Timbal (A), Dobighat, Merak Shah Colony and sub circle "B" consisted of Moti

Correspondence:
Ms. Ifqa Mushtaq Siddique
M.F.Sc. Scholar, Division of Social Sciences (Fisheries Extension), Faculty of Fisheries, Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir (SKUAST-K), Rangil, Ganderbal, Jammu and Kashmir-190006 India
Email: ifqamushtaq2705@gmail.com

Mohalla, Taliban (B) and Sheikh Mohalla. The 3 fisher dominant areas viz Dobighat and Taliban (A) from sub-Circle "A" whereas Moti Mohalla and Timbal (B) from sub circle "B" were randomly selected by using a chit method.

Selection of respondents: A total number of 80 respondents were selected by random sampling method and constituted both male and female fishers. A total number of 44 respondent fishers were selected from Moti Mohalla, 18 from Taliban and 18 from Dobighat Dargah. The sample size was taken proportionally according to the total population size.

Data collection: The principal researcher collected the primary data by in personnel visits to fishing communities by maintaining all the necessary SOPs. The data was collected using a structured interview schedule which consisted of 22 close ended question regarding awareness and knowledge about pandemic. The responses were recorded using a nominal scale.

Data analysis: The different statistical tools and approaches were used to analyze and interpret the collected data. The software's used during the study were Microsoft-EXCEL used for tabulation, frequency distribution, charts. PAST-4 (paleontological statistics) used for chi square test and SPSS version 20 (statistical package for social sciences) used for data analysis. The responses were recorded using a nominal scale and categorization of fishers was done as high, medium and low on the basis of level of knowledge.

RESULTS

Are you aware of novel coronavirus pandemic?

The data tabulated in table 1 shows that all the respondents were aware of novel coronavirus.

Covid-19 is caused by a virus?

From table 1 it was depicted that 63.16 % male fishermen were aware of the cause and 36.84% being unaware whereas among fisherwomen 50% were aware and 50 % were unaware about the basic cause of pandemic.

Covid-19 is a contagious disease?

Table1 indicated that all the respondents (100% male and100% female) knew that the disease was contagious in nature.

Is covid-19 a curable disease?

Table 1 depicted that 63.16% males and 64.29% females believed that the disease was treatable whereas a very small population (2.63% male and 2.63% female) felt that the disease was incurable. Also, it was found that 34.21% of fishermen and 33.33% of fisherwomen were not certain about the treatability of the pandemic.

Can the virus affect all age groups?

It was revealed from table 1 that Majority of respondents (71.05% males and 73.81% females) believed that COVID-19may affect all age groups, whereas, 11.90% of females were against the statement. Around 28.95% males and 14.29% females had no idea about the fact.

Are the children and elderly more likely to have complications?

The data presented in table 1 shows that majority of the population (73.68% of fishermen and 71.43% fisherwomen) were worried about the virus might create more complications in children and elderly, whereas part of population (10.53% males and 11.90% females) believed the statement to be just a myth and 15.79 %males and 16.67 % females had no clue about the same.

Is the disease more dangerous in people with diabetes, cancer and chronic respiratory diseases?

It was revealed from the Table 1 that 50% of both the males and females believed that the pandemic can be more dangerous for people with chronic diseases. Around 42.11% males and 35.71% females had no knowledge regarding the same.

The prevalence of covid-19 is increasing in Kashmir?

It is evident from table 1 that 42.11% of males and 30.95% of females felt that prevalence of covid-19 was increasing in Kashmir. Majority of respondents (50% of fishermen and42.86% of fisherwomen) did not agree. Also,7.89% of males and 26.19% of females were totally ignorant of the statement.

Is virus transmitted through air over long distances?

It is apparent from the data given in table 1 that majority of fishers (60.53% males and 61.90%of females) didn't know whether the air could be the medium of transmission or not. 23.68% males and 16.67% females knew that the virus cannot be transmitted through air over long distances but 15.79% males and 21.43% females believed that the virus can be transferred through air.

Is the virus transmitted through contact with infected surfaces?

Regarding transmission of virus through infected surfaces, from table 1 it was found that, majority of respondents (male 65.79 % and female 66.67%) believed that this could be the cause for transmission of virus. Around 13.16% males and 7.14% females felt that this could not be the possible cause of transmission. Whereas 21.05% of male and 26.19% of female were not certain about the transmission of virus through infected surfaces.

Coronavirus symptoms include fever, cough and shortness of breath?

Data tabulated in table 1 indicated that while assessing the knowledge of the respondents about the symptoms of covid-19 as cough, fever and shortness of breath, it was found that majority of the male (89.47%) and female (80.95%) felt that these are the positive symptoms of virus. Amongst the respondents, only 4.76% of female did not agree with these being the positive symptoms for novel coronavirus, whereas, 10.53% of fishermen and 14.29% of fisherwomen were not familiar about the symptoms.

Sore throat, loss of taste and smell are symptoms of covid-19?

Table 1 revealed that 34.21% of male and 28.57% of female population were familiar with the symptoms like sore throat, loss of taste and smell, and 39.47% of male and 33.33% of female were unfamiliar. Among the total respondents, 26.32% male and 38.1% of female were uncertain about the possible symptoms of covid-19.

Does frequent washing of hands reduce the chances of infection by the virus?

Regarding the knowledge about hand wash, it was found from table 1, that 57.89% of male and 64.29% of female agreed that frequent hand wash may reduce the chance of infection whereas 39.47% males and 30.95% females disagreed and only a small portion of about 2.63% of males and 4.76% of females had no knowledge.

Does the surgical mask and sanitizers completely protect the person from getting infected with virus?

While interviewing about the precautionary measures, it was found from table 1 that, 52.63% males and 38.10% females believed that surgical masks and sanitizers could protect them from getting infected. On the contrary, 42.11% males and 59.52% females were not

satisfied with the extent of safety provided from masks and sanitizers. Only negligible proportion of respondents (5.26% males and 2.38% females) were unfamiliar with these measures.

Does washing nose with saline solutions helps to prevent the virus?

It was observed from table 1 that among the total population under study, 55.26% males and 47.62% females have a faulty faith that washing nose with saline solution can prevent them from invasion of virus whereas 26.32% males and 30.95% females disagreed with the measure and about 18.42% males and 21.43% females don't have any knowledge regarding the same.

Can early detection of covid-19 improve treatment and outcomes?

The data in table 1 shows that majority of male (94.74%) and female (92.86%) respondents claimed that early detection of covid 19 can improve both the treatment and outcomes, whereas, only a small number of individuals were not aware.

Can health education help prevent covid-19?

It is evident from table 1 that 84.21% of males and 76.19% females respectively believed that health education can help in preventing covid-19 infection. It was also found that 13.16% males and 14.29% females disagreed and about 2.63% of male and 9.52% of females don't know whether education during this crucial time can help them or not.

Is vaccine currently available to protect against infection with virus?

The outcomes from table 1 revealed that 42.11% of males and 30.95% females were not aware about the availability of vaccines while 50% of male respondents and 52.38% of female respondents were certain

about the unavailability of vaccines and only a small portion of respondents i.e., 7.89% males and 16.67% females knew that vaccines were available.

Do you feel that the government is taking all necessary step to tackle and control covid-19 virus?

While interviewing, whether the pandemic is being controlled and role of the government in talking covid-19, it was found (table 1) that 13.16% of male respondents and 23.81 % female respondents felt it was not being controlled, where as 47.37% males and 50% females agreed with the vital role of the government in controlling the pandemic. Around 39.47% males and 26.19% females had no knowledge regarding the same.

Do you feel that maintaining social distance is must during the ongoing pandemic?

It was observed from table 1 that among the respondents under study majority of males 97.37% and 95.24% of females felt that maintaining social distancing during pandemic was must and could prevent them from being infected.

Was it wise on behalf of authorities to lockdown and quarantine whole population?

It was reported from table1 that 68.42% of males and 69.05% of females were against the decision of imposing lockdown and around 31.58% males and 30.95% females favored the decision.

Are the infected people completely cured?

From the Table 1 it was found that 57.89 male respondents and 47.62 female respondents possessed a belief that covid -19 can be completely cured whereas 36.84% males and 50% females don't know whether the infection is completely curable or not.

Table 1: Assessment of Knowledge regarding COVID-19 among fishers (n = 80)

S. No.	Statement	True/False	Male (n=38)			Female (n=42)			Chi square	p-value
			Yes (%)	No (%)	Don't know (%)	Yes (%)	No (%)	Don't know (%)		
1.	Are you aware of the novel coronavirus pandemic?	T	38 (100.00)	0 (0.00)	0 (0.00)	42 (100.00)	0 (0.00)	0 (0.00)	N. A	N. A
2.	COVID-19 is caused by a virus	T	24 (63.16)	0 (0.00)	14 (36.84)	21 (50.00)	0 (0.00)	21 (50.0)	1.403	0.236
3.	COVID-19 is a contagious disease	T	38 (100.00)	0 (0.00)	0 (0.00)	42 (100.00)	0 (0.00)	0 (0.00)	N. A	N. A
4.	Is COVID-19 a curable disease?	T	24 (63.16)	1 (2.63)	13 (34.21)	27 (64.29)	1 (2.63)	14 (33.3)	0.013	0.993
5	Can the virus affect all the age groups?	T	27 (71.05)	0 (0.00)	11 (28.95)	31 (73.81)	5 (11.90)	6 (14.29)	6.562	0.037
6.	Are the children and the elderly more likely to have complications?	T	28 (73.68)	4 (10.53)	6 (15.79)	30 (71.43)	5 (11.90)	7 (16.67)	0.057	0.971
7	Is the disease more dangerous in people with diabetes, cancer and chronic respiratory diseases?	T	19 (50.00)	3 (7.89)	16 (42.11)	21 (50.00)	6 (14.29)	15 (35.7)	0.934	0.626
8.	The prevalence of COVID-19 disease is increasing in Kashmir	T	16 (42.11)	19 (50.00)	3 (7.89)	13 (30.95)	18 (42.86)	11 (26.1)	4.720	0.094
9.	Is the virus transmitted through the air over long distances?	F	6 (15.79)	9 (23.68)	23 (60.53)	9 (21.43)	7 (16.67)	26 (61.9)	0.835	0.658
10.	Is the virus transmitted through contact with infected surfaces?	T	25 (65.79)	5 (13.16)	8 (21.05)	28 (66.67)	3 (7.14)	11 (26.1)	0.945	0.623
11.	Coronavirus symptoms include fever, cough and shortness of breath.	T	34 (89.47)	0 (0.00)	4 (10.53)	34 (80.95)	2 (4.76)	6 (14.29)	2.205	0.331
12.	Sore throat, loss of taste and smell are symptoms of	T	13 (34.21)	15 (39.47)	10 (26.32)	12 (28.57)	14 (33.33)	16 (38.1)	1.262	0.531

	COVID-19.								
13.	Does frequent washing of hands reduce the chance of infection by the virus?	T	22 (57.89)	15 (39.47)	1 (2.63)	27 (64.29)	13 (30.95)	2 (4.76)	0.788	0.674
14.	Does the surgical mask and sanitizers completely protect the person from getting infected with the virus?	F	20 (52.63)	16 (42.11)	2 (5.26)	16 (38.10)	25 (59.52)	1 (2.63)		
15.	Does washing of nose with saline solution helps to prevent the virus?	F	21 (55.26)	10 (26.32)	7 (18.42)	20 (47.62)	13 (30.95)	9 (21.43)	0.466	0.791
16.	Can early detection of COVID-19 improve treatment and outcome?	T	36 (94.74)	0 (0.00)	2 (5.26)	39 (92.86)	0 (0.00)	3 (7.14)	0.466	0.466
17.	Can health education help prevent COVID-19?	T	32 (84.21)	5 (13.16)	1 (2.63)	32 (76.19)	6 (14.29)	4 (9.52)	1.695	0.428
18.	Is a vaccine currently available to protect against infection with the virus?	T	3 (7.89)	19 (50.00)	16 (42.11)	7 (16.67)	22 (52.38)	13 (30.9)	1.934	0.380
19.	Do you feel that COVID-19 virus is being successfully controlled finally?	T	5 (13.16)	18 (47.37)	15 (39.47)	10 (23.81)	21 (50.00)	11 (26.1)	2.318	0.313
20.	Do you feel that maintaining social distance is must during the ongoing pandemic?	T	37 (97.37)	1 (2.63)	0 (0.00)	40 (95.24)	1 (2.63)	1 (2.63)	0.919	0.631
21.	Was it wise on behalf of authorities to lockdown and quarantine the whole population?	T	12 (31.58)	26 (68.42)	0 (0.00)	13 (30.95)	29 (69.05)	0 (0.00)	0.003	0.951
22.	Are the infected people completely cured?	T	22 (57.89)	2 (5.26)	14 (36.84)	20 (47.62)	1 (2.63)	21 (50.0)	1.632	0.442
Total			502 (58.69)	168 (22.31)	166 (18.99)	534 (56.73)	190 (23.51)	198 (20.8)	N.A	N.A

*"T" denotes that the statements are true and "F" denotes that the statements are false

Table 2: Categorization of fishers on knowledge level

S. No.	Level of knowledge about COVID-19	Male (%) n=38	Female (%) n=42
1	Low (≤28 score)	13 (34.2)	16(38.00)
2	Medium (28-33 score)	13 (34.2)	13(31.00)
3	High (≥41 score)	12 (31.6)	13(31.00)

DISCUSSION

Knowledge about covid-19

During the current study the knowledge, awareness and risk of infection perception among the fishing communities was revealed. The data was collected in the month of October and November 2020 with the help of an interview schedule that consisted of 22 questions about knowledge regarding covid-19 among fishers. The results revealed that out of 22 questions, 19questions were correctly answered. On the basis of frequency-based distribution, respondents were categorized on their knowledge regarding covid-19 and it was found that despite of high illiteracy rate, majority of the respondents possessed medium (32.5%) and high (31.35%) level of knowledge regarding the pandemic. The reason behind their knowledge was their vigilant behavior, dissemination of information through multiple sources of mass media, awareness programmers and curiosity of the fishers to remain updated about covid-19 due to severity of the pandemic.

Awareness, cause and nature of covid-19

The present study confirmed that all the respondents under study were aware of novel corona virus but only half of the population under study was aware of the cause i.e., the causative agent of this deadly disease being a virus, whereas the section of the population was aware about the pandemic but being illiterate had no deeper knowledge about the causative agent. Also, majority of respondents were familiar with covid-19 being highly contagious. From the present study we found that there was an optimistic attitude and belief among the majority of respondents about the treatability and full recovery of an infected person. The above-mentioned findings are in a line with the study conducted by [4-9]. Alrubaiee *et al.* (2020), Erfani *et al.* (2020), Galle *et al.* (2020), Singh *et al.* (2020), Zegarra *et al.* (2020), Gohel *et al.* (2021) where majority of respondents were well aware about the cause, nature and treatability of covid-19.

Tendency of novel corona virus to affect different age groups and people with different medical conditions:

Majority of participants under study had a reasonable level of knowledge regarding the tendency of corona virus to affect all age groups, creating more complications in children, elders and people with chronic diseases. Whereas half of the population was unaware of the fact that virus can be more dangerous in people with chronic disease. This could be due to illiteracy, careless attitude towards the pandemic and unavailability of proper source of information and awareness programmers. The results are in corroboration with [5,10,11]. Erfani *et al.* (2020), Alraqche *et al.* (2020) and Badi *et al.* (2021) who mentioned in their studies that majority of respondents were well aware about the tendency of covid-19 virus.

Prevalence of virus in Kashmir

Regarding the knowledge about increasing prevalence of covid-19 in Kashmir, we found that majority of participants didn't agree with this fact. They believed it to be a rumor for terrifying people and restricting them from coming out of their houses.

Transmission and preventive measures against the virus

On assessing awareness and knowledge about the mode of transmission we found that majority of respondents believed that virus could be transmitted through infected surfaces and through air. while being unaware of the fact that virus can be transmitted through respiratory droplets of an infected person. Similar findings have been reported by [5-12]. Erfani *et al.* (2020) and Ngwewondo *et al.* (2020) where it was found that majority of respondents were aware about the modes of transmission for corona virus.

The results further revealed that majority of respondents had good level of knowledge and frequently accepted the preventive measures like maintaining social distances, wearing surgical masks and frequent hand washing and sanitization can prevent them from being infected. Whereas majority of female respondents denied the fact that these measures can prevent them from catching an infection. These results are in corroboration with [9-11]. Gohel *et al.* (2021), Alraqche *et al.* (2020) and Badi *et al.* (2021).

Moreover, majority had a faulty belief that washing nose with saline solution could prevent the infection. The possible reason is higher illiteracy rate especially among females and also inadequacy of awareness programmers and lacking dissemination of updated information and awareness in the weaker and backward section of societies. Similar results have been reported by [13]. Mannan and Farhana (2020).

Symptoms related to disease

About the information level of respondents about symptoms of corona virus like cough, fever, shortness of breath, loss of taste and smell. we concluded that majority of the participants were highly aware about the symptoms whereas only a minor portion of population were not well acquainted because of unavailable proper source of information and their ignorance related to covid-19. The findings are in a line with studies conducted by [5,10,11]. Erfani *et al.* (2020), Alraqche *et al.* (2020) and Badi *et al.* (2021) where majority of respondents were found to be familiar with the symptoms of corona virus.

Importance of early detection of virus and health education

The study revealed majority of respondents under study strongly believe that early detection of covid-19 and immediate isolation of infected person and health education can help in preventing, treating and also generating positive outcomes and decrease the fatality rates. It depicts that majority of respondents wanted to enhance, update and upgrade their knowledge level to remain updated about the global emergency to be safe and mitigate its effects. Similar findings have been reported by [5] Erfani *et al.* (2020).

Awareness about availability of covid-19 vaccines

The data for the present study was collected during the month of oct-nov, 2020, at that time vaccines were not available in India. Majority of participants were certain about the unavailability of vaccines as they were keeping themselves updated by watching news channels, reading Urdu newspapers and the young generation surfing the internet for availability of vaccine. It concludes they were more scared of getting infected with the virus that's why they preferred to remain aware and cautious about the availability of vaccines so whenever the vaccines would be available in hospitals and public health centers, they will get vaccinated at the earliest.

Role of government in controlling covid-19 by imposing lock down

The findings of present study revealed that majority of participants claimed that virus was not being controlled however, they knew government played a vital role in tackling the pandemic by creating awareness about covid-19 to prevent people from corona virus and reduce loss of life. The respondents were getting regular updates by reading newspaper, watching news channels, hearing radio and surfing internet, and discussion with friends, relatives, and neighbors. The study also concluded that majority of respondents were not in favor of government on taking a sudden decision of imposing valley wide lockdown without providing any alerts, preparedness, or awareness programmers prior to lock down. Similar studies have been conducted by [14-17]. Djalante *et al.* (2020), Islam *et al.* (2020), Prasad *et al.* (2021) and Friday ani *et al.* (2021).

CONCLUSION

The study can be concluded with an interesting note that fishers inhabiting around dal lake behaved as responsible citizens. Despite being illiterate, they were keen to keep themselves updated about the pandemic and therefore possessed appreciable knowledge about covid-19. They also were found to follow SOPs. The enhanced awareness about covid-19 also reflected the successful efforts of J&K Government in spreading awareness about pandemic among masses.

Acknowledgement

Conflict of Interest

None declared.

Financial Support

None declared.

REFERENCES

1. Hongzhou Lu, Charles WS, Yi-Wei T. Outbreak of pneumonia of unknown etiology in Wuhan, China: The mystery and the miracle. J. Med. Virol. 2020;92(4):401.
2. Sohrabi C, Alsafi Z, O'Neill N, Khan M, Kerwan A, Al-Jabir A, *et al.* World Health Organization declares global emergency. A review of the 2019 novel coronavirus (COVID- 19). Int. J. Surg. 2020:71-76.
3. John H. COVID-19 Map-Johns Hopkins Coronavirus resource centre. Johns Hopkins Coronavirus Resource Centre. 2020.
4. Alrubaiee GG, Talal AH Al-Qalah, Mohammed SA. Al-Aawar. "Knowledge, attitudes, anxiety, and preventive behaviours towards COVID-19 among health care providers in Yemen: an online cross-sectional survey." BMC Public Health. 2020;20:1-11.
5. Erfani A, Shahriarirad R, Ranjbar K, Mirahmadizadeh A, Moghadami M. Knowledge, attitude and practice toward the novel coronavirus (COVID-19) outbreak: a population-based survey in Iran. Bull world Health organ. 2020;30(10.2471):10-2471.
6. Galle F, Sabilla EA, Da Moulin. G, De Giglio O, Caggiano G, Di Onofrio V, *et al.* Understanding Knowledge and Behaviuor Related to COVID-19 Epidemic in Italian Undergraduate student: The Epico Study. International J. Environ. Res. Pub. Health. 2020;17:3481.
7. Singh AK, Agrawal B, Sharma A, Sharma P. COVID• 19: Assessment of knowledge and awareness in Indian society. J. Pub. Aff. 2020;2:e2354.
8. Zegarra-Valdivia J, Chino Vilca BN, Ames-Guerrero RJ. Knowledge, perception and attitudes in Regard to COVID-19 Pandemic in Peruvian Population. PsyArXiv. 2020.
9. Gohel KH, Patel PB, Shah PM, Patel JR, Pandit N, Raut A. Knowledge and perceptions about COVID-19 among the medical and allied health science students in India: An online cross-sectional survey. Clinical epidemiology and global health. 2021;9:104-9.
10. Alqrache AT, Mostafa MM, Atta HM. Knowledge and attitude towards covid-19 among students Of King Abdulaziz University. Era's J. Med. Res. 2020;7:21-29.

11. Badi S, Atkluhrahim MA, Mustafa AA, Matar MS, Yousef BA. Knowledge, attitude and practices of university students towards COVID-19 in Sudan: An online based cross sectional study. Cur. Med. Stu. 2021;19:70-77.

12. Ngwenwondo A, Nkengazong L, Ambe LA, Ebogo JT, Mba FM, Goni HO, *et al*. Knowledge, attitude and practices of /COVID-19 preventive measures and symptoms: A cross sectional study during the exponential rise of the outbreak in Cameroon. PLOS Neglected Trop. Dis. 2020;14:e0008700.

13. Mannan KA, Farhana KM. Knowledge, attitude and acceptance of a COVID-19 vaccine: a global cross-sectional study. Int. Res. J. Buis. Soc. Sci. 2020;6:1-23.

14. Djalante R, Rajib S, Andrew DeWit. Building resilience against biological hazards and pandemics: COVID-19 and its implications for the Sendai Framework. Prog. Disas. Sci. 2020;6:100080.

15. Islam MT, Talukder AK, Siddiqui MN, Islam T. Tackling the COVID-19 pandemic: The Bangladesh perspective. Journal of public health research. 2020;9(4):1794.

16. Prasad U, Sarwal R, Gopal M, Paul VK. Mitigation and management of COVID-lKh practices from India's states & union territories. 2021.

17. Fridayani HD, Jenn JS. The Emergent Role of Local Government On Covid-19 Outbreak In Indonesia: A New State-Society Perspective. J. Govern. 2021:23-45.

HOW TO CITE THIS ARTICLE
Siddique IM, Maliz R, Adnan Bin Zahoor AB. Assessment of knowledge regarding novel Corona Virus (covid-19) among fishers of Kashmir valley. J Phytopharmacol 2022; 11(3):167-172. doi: 10.31254/phyto.2021.11307