Awareness Among People of Kashmir In Understanding precautions/Protocols Taken During Covid19 Pandemic

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Abstract
The Coronavirus Disease 2019 (COVID-19) outbreak has affected all regions and countries with varying impacts based on infection rates and the associated fatalities. The main purpose of this study was to evaluate the knowledge, attitude, and practices among the people of Kashmir valley during the COVID-19 pandemic. 1550 respondents from different district of Kashmir valley were selected for this study. A well-designed validated questionnaire was used to collect the information from the respondents. The questionnaire was circulated through social media platforms viz whatsapp, gmail, facebook etc. One thousand five hundred & eighty individuals responded to the survey, and after excluding individuals with missing data, only 1550 individuals were included in the final analysis. The majority of the study participants was male and in the age range of 18–40 years. Most of the respondents had a good knowledge of Pandemic & had an optimistic approach for people to fight covid. While the world is in search for a cure, it is recommended that countries use existing scientific tools to develop models to predict community-based outcomes prior to making decisions. Healthcare workers must be supported with supplies and remain updated with knowledge, and citizens must play their role to maintain basic guidelines.

Introduction

Corona virus disease 2019 (abbreviated "COVID-19"), named for the crown-like spikes that stick out from its surface, is an emerging respiratory disease that is caused by a novel corona virus. It was first detected in December 2019 around a seafood market in the Chinese city of Wuhan.[1]

There have been two events in the past two decades wherein crossover of animal beta corona viruses to humans has resulted in severe disease. The first event occurred in 2002–2003, when a new corona virus of the β genus and with origin in bats crossed over to humans via the intermediary host of palm civet cats in the Guangdong province of China. This virus, designated as severe acute respiratory syndrome corona virus (SARS-COV), affected 8422 people mostly in China and Hong Kong and caused 916 deaths. The second event occurred almost a decade later in 2012, of bat origin, in Saudi Arabia designated as Middle East respiratory syndrome corona virus (MERS-COV) with dromedary camels as the intermediate host and affected 2494 people and caused 858 deaths. [2]

COVID-19 started from Wuhan city of China in December 2019. But in a short stretch of time, it engulfed almost all over the world. On January 11, 2020, China declared the first death of their citizen due to COVID-19, who was exposed to the seafood market in Wuhan. On February 11, 2020, WHO

announced this corona virus disease as COVID-19 (WHO, 2020). On March11, 2020, it was declared as a pandemic by WHO.[3]

COVID-19 has had a catastrophic effect on the world's demographics, resulting in more than 3.8 million deaths worldwide, emerging as the most consequential global health crisis since the era of the influenza pandemic of 1918. Since being declared a global pandemic, COVID-19 has ravaged many countries worldwide and has overwhelmed many healthcare systems. The pandemic has also resulted in the loss of livelihoods due to prolonged shutdowns, which have had a rippling effect on the global economy. Even though substantial progress in clinical research has led to a better understanding of SARS-CoV-2 and the management of COVID-19, limiting the continuing spread of this virus and its variants has become an issue of increasing concern, as SARS-CoV-2 continues to wreak havoc across the world, with many countries enduring a second & third wave of outbreaks of this viral illness attributed mainly due to the emergence of mutant variants of the virus.[4]

To prevent the spread of infection, the lockdown was imposed globally, which brought all economic and social activities to a standstill. In India, the Central Government also imposed a nationwide lockdown for the first time on March 22, 2020. All transport, manufacturing, hotels, educational sector, and service industries were shut down immediately after the announcement of lockdown. People started working from home. A large number of people shifted to a digital platform. School and college students attended their classes' online.[5]

In the past, knowledge, attitudes, precautionary behaviors had positive effects on the control of the epidemics of SARS, Ebola, and H1N1 human influenza flu. Knowledge of infection pathways and relevant precautions to take is needed to control the pandemic.[6]

To the best of our knowledge, a limited number of studies have investigated the KAP on COVID-19 among residents of Kashmir valley. There is an urgent need to understand the public's awareness toward COVID-19 at this critical moment to unclog

its outbreak management. This study is aimed to evaluate the knowledge, attitude, and practices among the people of Kashmir valley during the COVID-19 pandemic.

Materials & Methods

A well-developed pretested questionnaire was used to collect the information from a sample of 1550 people selected randomly from different districts of Kashmir valley using a stratified random sampling procedure. The respondents under study were explained the purpose of this study to get their approval. The questionnaire was designed to assess their knowledge, attitude, and practices during the COVID -19 pandemic.

Sample Size Determination

To determine the sample size, a single population proportion formula, n = Z2p (1-p)/d2 was used. We used 50% of prevalence to get a representative sample size by considering a 95% confidence interval; a marginal error of 2.5%.Therefore, the minimum calculated sample size was 1542. A random sampling technique was employed to select the study participants.

Results

Sociodemographic Characteristics

One thousand five hundred & eighty individuals responded to the survey, and after excluding individuals with missing data, only 1550 individuals were included in the final analysis. Out of 1550 individuals, more than 70 % were in 18-40 year age group & only 3% respondents were more than 60 years of age. Male respondents outnumbered females. There was almost equal urban-rural distribution of individuals. (Table 01)

Table 01 Sociodemographic Determinants of Study Participants. (total n = 1550)		
Characteristics	**Frequency**	***n* (%)**
Age group		
<18 years	166	10.7%
18-40 years	1096	70.7%
41-60 years	242	15.6%
>60 years	46	3%
Gender		
Males	1001	64.6%
Females	549	35.4%
Residence		
Urban	770	49.7%
Rural	780	50.3%

Knowledge regarding COVID 19

Table 02 illustrates the study findings in terms of level of knowledge. The results show that most of the respondents, 1490 (96%), knew about COVID-19 pandemic. However, 43 (2.8%) of the respondents stated that they were not aware of that. Social media, television & newspapers were the primary source of information. 97% of respondents were aware of its first case origin, 72% were aware of the viral structure having crown-like projections. A large proportion of people (91%) were aware of its mode of transmission & the ways to prevent it as well.

However, 232 (15%) didn't know preventive measures & 125 (8%) individuals believed that it can't be prevented. Most respondents (86%) knew that Covid contacts should be isolated for 14 days. 95.1% identified coughing, fever, shortness of breath as the COVID-19 symptoms. 1275 people believed diabetes, asthma & hypertension as potential risk factors for developing severe illness, nevertheless among them only (10) 0.6 % identified hypertension as a risk factors. There were diverse responses regarding treatment for Covid infection. Most of them said it can't be treated.

Table 02. knowledge regarding Covid 19 among study participants (n= 1550)		
Knowledge based questions	**Frequency**	***n* (%)**
Do you know about COVID 19 pandemic?		
Yes	1490	96.1%
No	43	2.8%
Not sure	17	1.1%
From where did you hear about this pandemic?		
TV	78	5%
Newspaper	19	1.2%
Social media	207	13.4%

All of the above	1246	80.4%
The first case of Novel Coronavirus was identified in?		
Beijing	51	3.3%
Shanghai	0	0%
Wuhan	1499	96.7%
Tianjin	0	0%
From where Coronavirus got its name?		
Crown like projections	1113	71.8%
Leaf-like projections	147	9.5%
Brick like projections	22	1.4%
None	268	17.3%
Mode of transmission of COVID 19?		
Sneezing	82	5.3%
Touching	50	3.2%
Less than 1 meter distance	05	0.3%
All of the above	1413	91.2%
Do you know how to prevent COVID 19 infection?		
Yes	1139	73.5%
No	54	3.5%
Not sure	232	15%
Can't be prevented	125	8%
Symptoms of COVID infection are?		
Fever	50	3.2%
Cough	15	1.0%
Shortness of breath	11	0.7%
All	1474	95.1%
Who is at risk of developing severe illness?		
Diabetes	62	4.0%
Asthma	203	13.1%
Hypertension	10	0.6%
All of the above	1275	82.3%
COVID -19 contacts are isolated for how many days?		
7 days	77	5 %

10 days	77	5%
14 days	1333	86%
20 days	63	4%
Is there any treatment for COVID 19 infection?		
Yes	327	21.1%
No	691	44.6%
Not sure	475	30.7%
None	57	3.6%

Attitude of the participants towards COVID-19

Table 03 summarizes the attitudes towards the COVID-19 pandemic. Most respondents agreed to impose the lockdown to curb the spread virus. Quarantine is the right way to limit the transmission of virus from direct contacts or infected ones. 646 respondents believed that government's initiatives are appropriate, however 546 responses were opposite.

92% of respondents are in touch with recent developments and progresses happening worldwide regarding Covid infection. A large proportion of respondents are optimistic towards Covid vaccine. 1102 people say everyone should get the vaccine jab, 173 individuals restrict it to people with co morbidities only & 82 respondents say only non-allergic should get the vaccine.

Table 03. Attitude regarding COVID-19 among the study participants (n= 1550)		
Attitude	**Frequency**	***n* %**
Do you feel there is a need to impose the lockdown to stop the spread of virus?		
Yes	1120	72.3%
No	147	9.5%
May be	255	16.5%
Don't know	28	1.7%
What should one do if he/she is having corona virus symptoms?		
Isolation/ quarantine	968	62.5%
Visit nearby hospital	292	18.9%
Dial covid 19 helpline no	206	13.3%
Treat at home	84	5.3%
Do you think government's initiatives regarding COVID 19 are appropriate?		
Yes	646	41.7%
No	564	36.4%
Can't say	340	21.9%
Do you keep yourself updated about the recent developments of COVID 19?		
Yes	1426	92%

No	124	8%
Who do you think should get the vaccine shot done?		
Everyone	1102	71.1%
People with co morbid conditions	173	11.2%
Non allergic	82	5.2%
Don't know	193	12.5%

Practices of the respondents about COVID-19

Fortunately, most of the respondents 1103 (71.2 %) have a habit of wearing a face mask. More than 50% wear N95 face mask, whereas 40% use 3 ply masks. 566 people change their mask every day, 510 changes every three days, & 372 change after 15 days. 45.2% of individuals wash their hands always after sneezing or rubbing the nose, 31.1 % wash most of the times & 23% wash their hands occasionally. 57% of people maintain a social distance of 2 meters; however, only 3.3% are disinclined to do so. More than 75 % maintain eating hygiene & wash their fruits & vegetables before eating. More than 45% of respondents meet people with handshake & hug which is unsafe. 50% share their meals with others. More than 70% tend to avoid crowded places & if the need arises, follow proper SOP's.

Table 04: **Practice regarding COVID-19 among the study participants (n= 1550)**		
Practice	Frequency	*n* %
Do you always wear a mask regardless of the presence or absence of covid symptoms?		
Yes	1103	71.2%
No	30	1.9%
Not always	335	21.6%
Occasionally	82	5.3%
Do you wash your hands immediately after coughing, sneezing, rubbing nose ?		
Always	700	45.2%
Occasionally	356	23%
Most of the times	482	31.1%
never	12	0.7%
Do you maintain social distance of 2 meters to prevent the spread of COVID 19 infection?		
Yes	884	57%
No	51	3.3%
Occasionally	358	23.1%
Most of the times	257	16.6%

Do you wash your hands after touching contaminated objects?		
Always	872	56.3%
Most of the times	451	29.1%
Occasionally	220	14.2%
None	07	0.4%
Do you wash your fruits & vegetables before eating?		
Yes, always	1193	77%
Occasionally	194	12.5%
Most of the times	158	10.2%
Never	05	0.3%
Which type of mask do you wear?		
N-95	787	50.8%
3-ply	609	39.3%
Tailor made	154	9.9%
Don't wear	00	00
How frequently do you change your mask?		
Everyday	566	36.5%
Every three days	510	32.9%
Every week	372	24%
After 15 days	102	6.6%
Do you meet people with a handshake & hug?		
Always	40	2.6%
Occasionally	676	43.6%
Most of the times	200	12.9%
Never	634	40.9%
Do you share your meals with others?		
Always	83	5.3%
Occasionally	515	33.2%
Most of the times	162	10.5%
Never	790	51%
Do you avoid crowded places?		
Yes	1102	71.1%
Occasionally	204	13.2%

Most of the times	229	14.8%
never	15	0.9%

Discussion

Corona virus disease 2019 (COVID-19), the highly contagious viral illness caused by severe acute respiratory syndrome corona virus 2 (SARS-CoV-2), has created fear within people.[4]

KAP surveys are commonly used to identify knowledge gaps and behavioral patterns among sociodemographic subgroups to implement effective public health interventions. The issues of health inequalities unfolding during disease outbreaks has been extensively investigated across pandemics. For example, the novel influenza A (H1N1) burden was substantially higher for people who were less educated, living in more deprived neighborhoods, and experiencing more significant financial barriers.[7]

This study aimed to assess the community's knowledge, attitude, and practices during the pandemic.

The majority of the study participants were male and in the age range of 18–40 years. The majority of the respondents (76.0%) got the information about COVID-19 from mass media such as TV, news paper & social media platforms which was in agreement with the findings done in Addis Zemen Hospital, Ethiopia.[8] Most of the respondents had good knowledge about the transmission mode of COVID-19 that is in agreement with previous studies done in Kenya and Nigeria.[9] Of the respondents surveyed in this study, the majority of them had very good knowledge about the mode of transmission & clinical symptoms of COVID-19. Most of the respondents were aware of preventive & precautionary measures taken during the pandemic for covid positives & contacts as well. This is in agreement with the findings in the study done in Saudi Arabia.[10]

There seem to be an optimistic approach for people to fight covid, both at community level & administrative level. More than half the respondents were in favour of lockdown implementation & mass vaccination as stressed by Satyajit Kundu in an online survey in Bangladesh.[6] People want the government to improve & amend its strategy to contain the virus.

Our study found considerably positive practices toward COVID-19. Most of the people took preventive measures against this infectious disease, such as refraining from public gatherings, wearing masks while going out, and disinfecting their hands upon coming back from outside persistent study done in Nigeria.[11] However, SOP's are not followed by all, there is still a need to emphasize on it by public health experts.

Overall, the population of the Kashmir valley shows high levels of knowledge, a correct perception of risk, and good practices related to COVID-19 consistent with the findings of the study done by Erfani AH etal in Iran.[12] The understanding of the severity of COVID-19 would mean that individuals perceive that they are susceptible to the disease, and a correct perception towards COVID-19 encourages good practice.

The majority of patients with COVID-19 present common symptoms that include fever, shortness of breath, cough (either with or without sputum), sore throat, nasal congestion, dizziness, chills, muscle ache, arthralgia, weakness, fatigue or myalgia, chest tightness, excessive mucus production with expectoration, hemoptysis, and dyspnea. Even though fever is not the only initial clinical manifestation of SARS-CoV-2 infection, it is considered critical. Fever, cough, and fatigue are the three most prevalent symptoms in COVID-19 patients. Other less characteristic symptoms include headache, diarrhea, abdominal pain, vomiting, chest pain, rhinorrhoea, or pharyngalgia. Approximately 90% of patients present more than one symptom.[13,14]

Besides severe clinical manifestations, primarily of the respiratory system, SARS-CoV-2 presents neurotropic properties. Neurologic manifestations are commonly described in COVID-19 patients, and these might involve the central nervous system, peripheral nervous system, and skeletal muscles. Patients with a severe course of COVID-19 are more likely to develop neurological dysfunctions, among which acute cerebrovascular disease, conscious disturbance, and skeletal muscle injury are highly prevalent. Helms et al. reported that patients with

ARDS due to SARS-CoV-2 infection also presented encephalopathy, prominent agitation and confusion, acute ischemic stroke, or corticospinal tract signs. Some patients manifest only neurological symptoms, including headache, languidness, malaise, cerebral hemorrhage, or cerebral infarction.[15, 16]

Isolated sudden-onset anosmia is reported to be the fourth most common symptom of SARS-Cov-2infection.[17] A significant number of studies indicate that SARS-CoV-2 actively infects and replicates within the gastrointestinal tract, inducing digestive symptoms primarily via expression of the viral receptor angiotensin-converting enzyme 2 (ACE2), found in gastrointestinal epithelial cells. The most common digestive symptoms in COVID-19 patients include nausea and/or vomiting, diarrhea, anorexia, or loss of appetite.[17, 18] Corona viruses are capable of inducing a wide spectrum of ophthalmic manifestations, such as conjunctivitis, anterior uveitis, retinitis, or optic neuritis. SARS-CoV-2 presents its ability of ocular transmission, which might result in ocular manifestations; however, the prevalence of such incidents is extremely low.[19] SARS-CoV-2 infection has been reported to manifest in the form of cutaneous symptoms. The first report of skin involvement in COVID-19 patients was observed in the form of an erythematous rash, widespread urticaria, and chickenpox-like vesicles, especially occupying the trunk. Mahé et al. reported a case of an infected patient with a distinctive skin rash. It was suggested that, in some cases, skin lesions might constitute a late manifestation of COVID-19, especially in young healthy individuals, and might appear due to the immunological reactions.[20, 21]

The understanding of COVID-19, its diagnosis, transmission routes, molecular mechanisms of infection, prevention, and treatment strategies are rapidly evolving. Compared to previous infections of severe acute respiratory syndrome-related corona virus (SARS-CoV) or the Middle East respiratory syndrome-related corona virus (MERS-CoV), SARS-CoV-2 is much more transmissive and dangerous and might affect nearly everyone, resulting in a wide spectrum of clinical manifestations.

Conclusion

The outbreak of SARS-CoV-2 infection, which started in Wuhan, China, in December 2019, has now become a global concern, being reported in more than 200 countries.

The pandemic has challenged our existing knowledge, laws, and regulations and forced us to take measures as far as complete lockdown in various parts of the world. High death toll of COVID-19 has stressed the need for prompt research and dissemination of updated information.

While the world is in search for a cure, it is recommended that countries use existing scientific tools to develop models to predict community-based outcomes prior to making decisions. Healthcare workers must be supported with supplies and remain updated with up-to-date knowledge, and citizens must play their role to maintain basic guidelines. At the governmental level, facilitating testing and contact tracing, providing timely publication of epidemic information, enabling early diagnosis, and delivering supportive treatments for patients are of utmost importance.

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