Awareness, Attitude and Practice of Rural People in Kashmir towards COVID-19: A Sample Survey

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Abstract: The Corona virus (COVID-19) is a novel virus which can infect animals as well as humans, can cause series of respiratory illnesses from the common cold to lung lesions, pneumonia and can possibly lead to death. World Health Organization (WHO), labeled it a pandemic as it seems to spread very easily from person to person, especially in homes, hospitals and confined places. Worldwide more than 800, 000 cases are reported in 200 countries of the world causing more than 38000 deaths. The main purpose of this study was to assess awareness of rural people in Kashmir towards symptoms, causes and prevention of Corona virus. In this study 400 respondents from different district of Kashmir valley were selected for this study during January 2020 to March 2020. A well-designed validated questionnaire was used to collect the information from the respondents. The data collected from our survey was analyzed using standard statistical tools with the help of statistical software IBM SPSS (version 25). The study revealed that people understudy in majority were not aware of the symptoms, causes and preventions of Corona, a deadly disease. The people understudy were of the opinion that rate of transmission of COVID-19 depends on various factors such as age, sex, climatic condition. The key factor to reduce the spread of COVID-19 is curtailment of social contact. The Corona virus besides health problems, may result in loss of livelihood, domestic violence, mental health issues, religious issues and loneliness like in other disasters. It was suggested that every individual should follow his/her religion and support advisory of health ministry to protect himself/herself from this deadly disease. In the present lockdown the print and electronic media can play a crucial role in increasing awareness among rural people of Kashmir regarding Corona virus spread and its prevention.

Keywords: Rural, Corona virus, Kashmir, Awareness, Attitude, Preventions, Statistics

1. INTRODUCTION

Corona virus disease 2019 (abbreviated "COVID-19") named for the crown like spikes that protrude from its surface which can infect both animals and humans is an emerging respiratory disease that is caused by a novel corona virus and was first detected in December 2019 around a seafood market in the Chinese city of Wuhan. The disease is highly infectious, and its main clinical symptoms include fever, dry cough, fatigue, myalgia, and dyspnea. The China's health authorities and CDC promptly identified the pathogen of such cases as a new type of corona virus, which the World Health Organization (WHO) named COVID-19 on January 10, 2020 and the virus seems to have high mortality rate. The studies show that overall case fatality rate of COVID-19 is 2.3% in China which is much lower than those of SARS (9.5%), MERS (34.4%), and H7N9 (39.0%) [The Novel Corona virus Pneumonia Emergency Response Epidemiology Team, 2020]. The World Health Organization (WHO), labeled Corona virus disease (COVID-19-19) as a pandemic which caused so far more than 38,090 deaths worldwide [WHO, 2020]. The Corona virus seems to spread very simply from person to person, especially in homes, hospitals and confined places. . In the world history first time nearly all over the world schools business centers etc were closed because of the threat of spread of this deadly disease as it can cause range of respiratory illnesses from the common cold to lung lesions and pneumonia. The pathogen can move through the air, enveloped in tiny respiratory droplets that are produced when an infected person breathes, talks, coughs or sneezes. It is reported that the common symptoms of Corona virus consist of fever, cough, shortness of breath and difficulty in breathing. It is advised to note that milder cases may resemble the flu or a bad cold, but people may be able to pass on the virus even before they develop symptoms of corona virus. The virus could last for days on a surface, depending on the environment. Corona virus is a disaster so generally the high morbidity and mortality rates are often found in the affected population, which is often exposed to critical sanitary situations, both immediately after the disaster. It is important to remember that in disasters there is an additional risk for diseases connected with crowding, lack of awareness and lack of adequate public services. The COVID-19 is not like any other natural disaster e.g., flood, earthquake etc we met in the past so people in general need to understand this fact. There is no cure for corona virus disease at present so the Scientists of the world are racing to develop new treatments and therapies to tackle the Corona virus pandemic COVID-19. In the absence of any treatment, it is very important that people should follow health advisory and religious guidelines to control the spread of this deadly infection. The major religion of the world guide people to protect themselves against diseases. Islam guides its followers in a unique way of dealing with the outbreak of diseases in two stages; i.e., before outbreak of the disease and after the outbreak of the disease. Holy Prophet of Islam calls its followers to protect themselves against diseases before the outbreak, through the cleanliness as He (peace be upon him) said: "Purification is half of faith." (Muslim). Further, Islam made lawful all the good foods and drinks and made unlawful all what causes harm to the bodies.

Islam has put rules and regulations on interactions with the opposite gender and prohibits adultery and homosexuality which are the causes of many diseases world wide. Islam commands Muslims to practice quarantine when there is an outbreak of a disease. All the people of the world at present follow guidelines of Prophet Muhammad (peace be upon him), He (peace be upon him) said: If you get wind of the outbreak of plague in a land, do not enter it; and if it breaks out in a land in which you are, do not leave it." (Al-Bukhari and Muslim).

Currently, the coronavirus COVID-19 is affecting 200 countries in the world and 2 international conveyances, the *Diamond Princess* cruise ship harbored in Yokohama, Japan, and the Holland America's *MS Zaandam* cruise ship. The table given below shows the country wise distribution of total cases, total deaths and total recovered cases of Corona virus.

Table 1: Top 10 Country wise distribution of total cases, total deaths and total recovered cases of Coronavirus

S. No.	Country	Total Cases	Total Deaths	Total Recovered
World		* 789,218	38,090	166,441
1	USA	164,359	3,173	5,507
2	Italy	101,739	11,591	14,620
3	Spain	87,956	7,716	16,780
4	China	81,518	3,305	76,052
5	Germany	67,051	650	13,500
6	Iran	41,495	2,757	13,911
7	France	44,550	3,024	7,927
8	UK	22,141	1,408	135
9	Switzerland	15,922	359	1,823
10	Belgium	12,775	705	1,527

* data as on 31/03/2020   Source : Worldometer

In J&K, more than 55 cases test positive till 31th March, 2020, among which one recovered and 2 died. In light of this, it is pertinent to take stock of our rural areas. The risk of spread in rural areas is heightened due to a number of factors, including lack of awareness, a limited supply of clean water, low levels of nutrition, and most significantly, ill-equipped and insufficient public health centres and district hospitals.   The informal industry in cities being badly affected has resulted in loss of rural income. What's more, massive layoffs and lack of relief measures are pushing migrants to return to their villages, which would increase the risk of the spread of the virus. To tackle the problem, state governments have sent advisories to rural areas through the district administration, which then passes it down to spread information about how to deal with the virus affected cases as well as about how to reduce the chance of it spreading. We chose present study in view of the literature (Bilal et al., 2020, Tao, 2003; Ajilore, Atakiti and Onyenankey, 2017; Hackbarth et al., 2012; Freedy et al., 1992 etc), we chose present study. In the present study, we scrutinize the awareness, attitude and precautions of rural people towards COVID-19 symptoms, causes and prevention.

2. MATERIALS AND METHODS

A well-developed pretested questionnaire (KAP) was used to collect the information from a sample of 400 rural people selected randomly from different districts of Kashmir valley using 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 the consciousness and approach of students towards symptoms, causes and prevention of Corona virus in Kashmir Valley. The Cronbach's alpha coefficient of the knowledge questionnaire for our study sample was 0.76, indicating acceptable internal consistency. The sample size for our survey was calculated using the formula (Cochran, 1997)

$$n = \frac{Z_\alpha^2\, P(1-P)}{d^2}$$

We take here p=0.5, $Z_\alpha = 1.96$ and d=0.05. That gives the sample size for our study n~384 and we chose n = 400. The data collected from our study was tabulated, analyzed and interpreted statistically. Statistical software SPSS (version 20) was used for analysis of data.

3. RESULTS AND DISCUSSION

The data presented in Table 1, reveals that majority of the respondents understudy were educated (male=88%, female=77%), having family size greater than 8 (male=54%, female=47%), from joint families (male=57%, female=69%) and from middle class families (male=91%, female=92%). The male respondents were in majority (42%) in the age group >45 years and female respondents were in majority (42%) in the age group 25-35 years.

Table 1: Distribution of the study population as per general information

S.No.	Variable	Gender	Type	Frequency	%
1.	Education Status	Male	Literate	264	88
			Illiterate	36	12
		Female	Literate	77	77
			Illiterate	23	23
2.	Age	Male	25-35	78	26
			36-45	96	32
			>45	126	42
		Female	25-35	42	42
			36-45	31	31
			>45	27	27
3.	Family Size	Male	3-5	51	17
			6-8	54	51
			>8	162	54
		Female	3-5	14	14
			6-8	39	39
			>8	47	47
4.	Family Status	Male	Low	21	7
			Medium	273	91
			High	6	2
		Female	Low	6	6
			Medium	92	92
			High	2	2
5.	Type of Family	Male	Joint	171	57
			Nuclear	129	43
		Female	Joint	69	69
			Nuclear	31	31

The data collected from 400 rural people of Kashmir valley (300 male and 100 female) reveals that rural people are aware that COVID-19 is a deadly disease so we need to take precautionary measures to prevent its spread but practically they are not taking much precautions. The respondents in response to questions asked to them regarding knowledge, attitudes, and practice towards COVID-19, 91.0% respondents agree to the statement (i) i.e., Do you agree that COVID-19 will finally be successfully controlled, 70.0% respondents agree to the statement (ii) i.e., Unlike the common cold, stuffy nose, runny nose, and sneezing are less common in persons infected with the COVID-19 virus, 93.0% respondents agree to the statement (iii) i.e., There currently is no effective cure for COVID-2019, but early symptomatic and supportive treatment can help most patients recover from the infection, 74.5% respondents agree to the statement (iv) i.e., Not all persons with COVID-2019 will develop to severe cases. Only those who are elderly, have chronic illnesses, and are obese are more likely to be severe cases, 76.5% respondents agree to the statement (v) i.e., Eating or contacting wild animals would result in the infection by the COVID-19 virus, 84.5% respondents disagree to the statement (vi) i.e., Persons with COVID-2019 cannot infect the virus to others when a fever is not present, 94.0% respondents agree to the statement (vii) i.e., The COVID-19 virus spreads via respiratory droplets of infected individuals, 77.0% respondents agree to the statement (viii) i.e., Ordinary residents can wear general medical masks to prevent the infection by the COVID-19 virus, 96.0% respondents disagree to the statement (ix) i.e., It is not necessary for children and young adults to take measures to prevent the infection by the COVID-19 virus, 97.5% respondents agree to the statement (x) i.e., To prevent the infection by COVID-19, individuals should avoid going to crowded places such as train stations and avoid taking public transportations, 97.0% respondents agree to the statement (xi) i.e., Isolation and treatment of people who are infected with the COVID-19 virus are effective ways to reduce the spread of the virus, 97.5% respondents agree to the statement (xii) i.e., People who have contact with someone infected with the COVID-19 virus should be immediately isolated in a proper place. In general, the observation period is 14 days, 90.5% respondents do agree to the statement (xiii) i.e., the rate of transmission of COVID-19 depends on various factors such as age, sex, climatic condition, 93.0% respondents agree to the statement (xiv) i.e., People who have contact with someone infected with the COVID-19 virus should be immediately isolated in a proper place. In general, the observation period is 14 days, 81.5% respondents agree to the statement (xv) i.e., Do you have confidence that India can win the battle against the COVID-19 virus, 72.5% respondents do not agree to the statement (xvi) i.e., In recent days, have you gone to any crowded place, 73.5% respondents do not agree to the statement (xvii) i.e., In recent days, have you worn a mask when leaving home. Researchers have proved that the virus can spread via human-to-human transmission, between people who are in close contact with one another (within about 6 feet) and this virus can spread through respiratory droplets produced when an infected person sneezes or coughs. The clinical trials are underway to develop a vaccine or treatment for COVID-19-19. It is important to report that Scientists inform that one COVID-19 patient can infect more than 59000 people around if left free without medication. Statistically, it is observed that all respondents in majority possess good knowledge about COVID-19 to the all statements related to knowledge and attitude. However, majority of respondents

lack in practice in rural areas of Kashmir. The results of our study are in agreement with the study recently conducted by Bilal et al (2020).

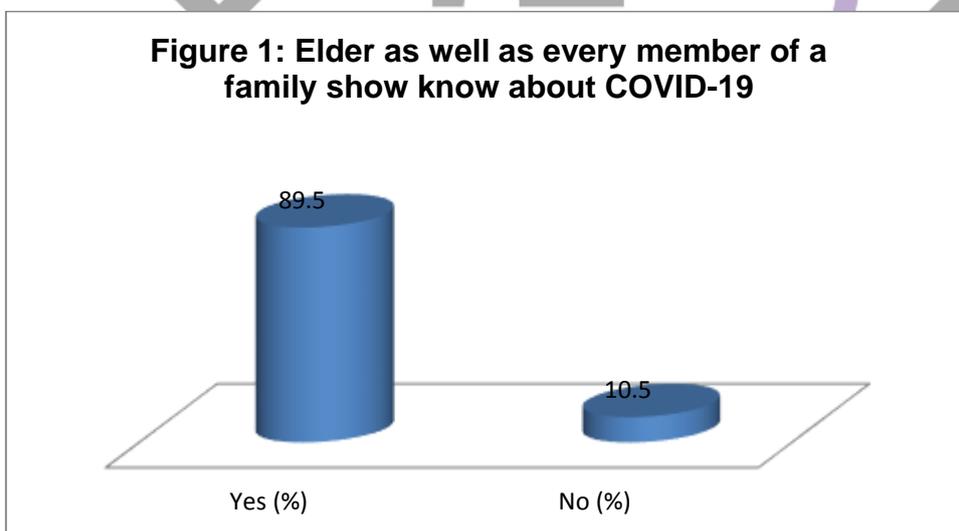**Table 2. Knowledge, attitude and practice of rural people of Kashmir towards COVID-19**

S.No.	Statement	Response			P-value
		Agree (%)	Disagree (%)	No Idea (%)	
	Knowledge of rural people of Kashmir towards COVID-19				
1.	Do you agree that COVID-19 will finally be successfully controlled?	364 (91.0)	12 (3.0)	24 (6.0)	<0.01
2.	Unlike the common cold, stuffy nose, runny nose, and sneezing are less common in persons infected with the COVID-19 virus.	280(70.0)	52(13.0)	68(17)	<0.01
3.	There is currently no effective cure for COVID-2019, but early symptomatic and supportive treatment can help most patients recover from the infection.	372(93.0)	12(3.0)	16(4.0)	<0.01
4.	Not all persons with COVID-2019 will develop to severe cases. Only those who are elderly, have chronic illnesses, and are obese are more likely to be severe cases.	298(74.5)	60(15)	42(10.5)	<0.01
5.	Eating or contacting wild animals would result in the infection by the COVID-19 virus.	306(76.5)	50(12.5)	44(11.0)	<0.01
6.	Persons with COVID-2019 cannot infect the virus to others when a fever is not present.	21(5.25)	338(84.5)	41(10.25)	<0.01
7.	The COVID-19 virus spreads via respiratory droplets of infected individuals.	376(94.0)	4(1.0)	20(4.0)	<0.01
8.	Ordinary residents can wear general medical masks to prevent the infection by the COVID-19 virus.	298(77.0)	34(8.5)	58(14.5)	<0.01
9.	It is not necessary for children and young adults to take measures to prevent the infection by the COVID-19 virus.	4(1.0)	384(96.0)	12(3.0)	<0.01
10.	To prevent the infection by COVID-19, individuals should avoid going to crowded places such as train stations and avoid taking public transportations.	390(97.5)	2(0.5)	8(2.0)	<0.01
11.	Isolation and treatment of people who are infected with the COVID-19 virus are effective ways to reduce the spread of the virus.	388(97.0)	0(0.0)	12(3.0)	<0.01
12.	People who have contact with someone infected with the COVID-19 virus should be immediately isolated in a proper place. In general, the observation period is 14 days.	390(97.5)	0(0.0)	10(2.5)	<0.01
13.	The rate of transmission of COVID-19 depends on various factors such as age, sex, climatic condition.	362(90.5)	24(6.0)	14(3.5)	<0.01
	Attitude of rural people towards COVID-19-19				
	Statement	Agree (%)	Disagree (%)	No Idea (%)	P-value
14.	Do you agree that COVID-19 will finally be successfully controlled?	372(93.0)	8(2.0)	20(5.0)	<0.01
15.	Do you have confidence that India can win the battle against the COVID-19 virus?	326(81.5)	18(4.5)	56(14.0)	<0.01
	Practice of rural people of Kashmir towards COVID-19-19				
	Statement	Yes (%)	No (%)	No Idea (%)	P-value
16.	In recent days, have you gone to any crowded place?	110(27.5)	290(72.5)	0(0.0)	<0.01
17.	In recent days, have you worn a mask when leaving home?	106(26.5)	294(73.5)	0(0.0)	<0.01

The data presented in Table 3, reveals that in all statements regarding thoughts towards COVID-19 spread, there is statistically significant difference between male and female responses. In majority male (87.0%) believe COVID-19 resulted due to deviation from religious teachings, 77% believe it is man made virus (biological weapon), 54% feel government is providing full support and 41.0% believe COVID-19 may cause a huge damage. In majority female (63.0%) do not believe that COVID-19 is a man made virus, 59.0% female respondents are not satisfied with the support provided by government in lockdown and 72.0% female respondents believe COVID-19 may cause huge damage. The respondents in majority reported that Government in general failed to implement virus control measures, lockdown and return of migrant workers to their homes from several parts of the country. The government did give time migrant workers, traders and students to travel to their homes. The videos uploaded on social media sites like face book and twitter by the students, migrant labours and traders stuck in different parts of the country for attacking the attention of Government towards the problems they faced in inaccessible areas away from their homes. The mismanagement of government resulted in failure of complete lockdown.
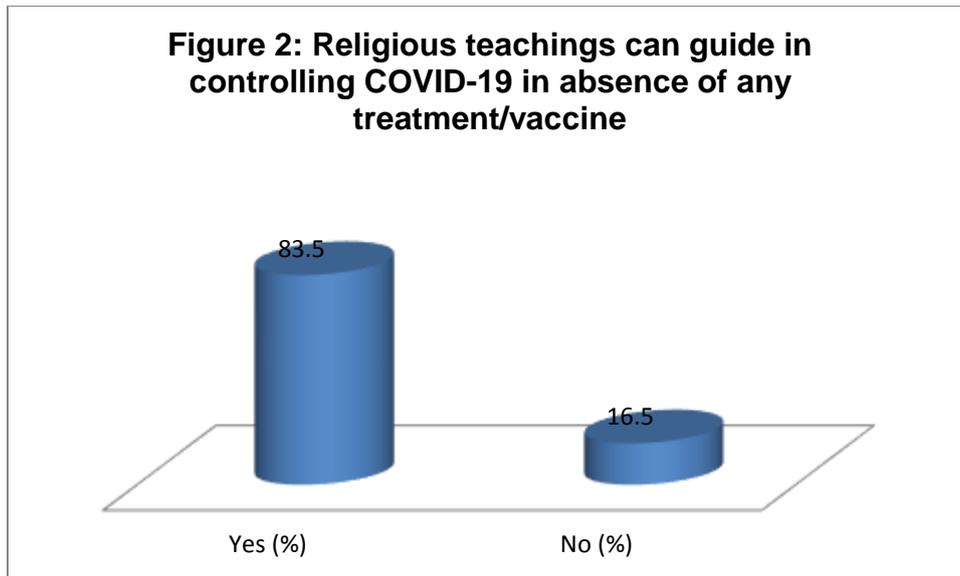
Table 3: Comparison among respondents thoughts towards COVID-19 Gender wise

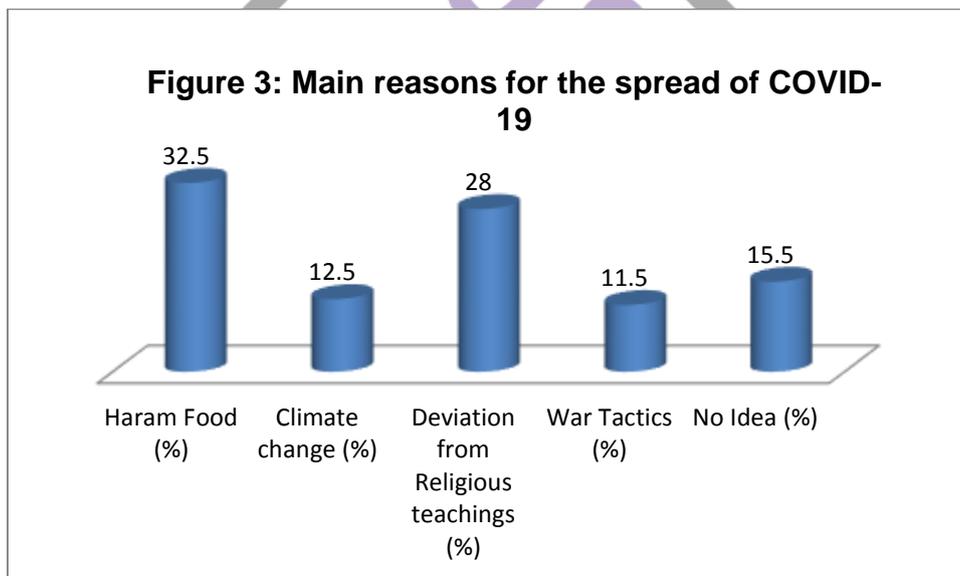| S.No.	Statement	Gender Gender	Response		Chisquare	P-value
			Yes (%)	No (%)		
1.	COVID-19 is a result of Deviation from True Path	Male	263 (87.67)	37 (12.33)		<0.01
		Female	76 (76.0)	24 (24.0)	7.898	
2.	COVID-19 is man made disaster	Male	232 (77.33)	68 (22.67)		<0.01
		Female	37 (37.0)	63 (63.0)	55.397	
3.	Govt. is providing full support to every one	Male	163 (54.33)	137 (45.67)		<0.05
		Female	41 (41.0)	59 (59.0)	5.335	
4.	COVID-19 may cause a lot of damage	Male	124 (41.33)	176 (58.67)	5.659	<0.05
		Female	28 (28.0)	72 (72.0)		

The data presented in Figure 1, reveals that majority (89.5%) of the respondents were of the opinion that every family member should be well aware of COVID-19. It is important to note that any infected family member can infect whole family as well as people surrounding him. People should understand an infected person needs immediate isolation that will save him as well as his family.

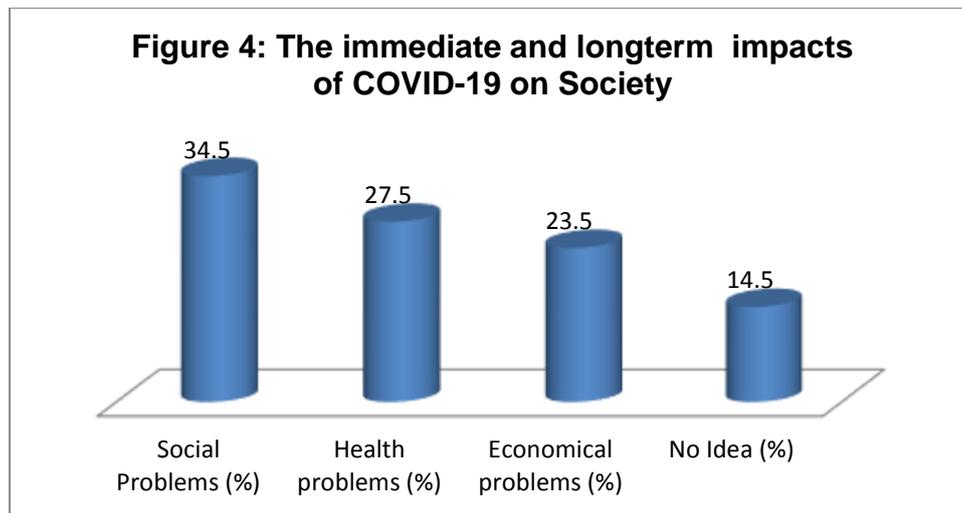Figure 1: Elder as well as every member of a family show know about COVID-19

The data presented in Figure 2, reveals that 83.5% rural people understudy were of the opinion that religious teachings can guide people to stop Corona virus spread in absence of any treatment/vaccine. The religious leaders can play a key role in increasing awareness among rural people especially among illiterates regarding any disaster. Kashmir is a Muslim majority area so religious leaders can guide people as per need of the hour in the light of Quran and Sunnah, keeping aside their personal differences or egos.

Figure 2: Religious teachings can guide in controlling COVID-19 in absence of any treatment/vaccine

83.5

16.5

Yes (%)   No (%)

The data presented in Figure 3, shows that the main reasons for the spread of COVID-19-19 as per respondents were eating Haram food (32.5%), followed by deviation from religion teachings (28.0%), followed by no idea (15.5%), followed by climate change (12.5%) and 11.5% respondents understudy believe it is a war tactics. Majority of respondents believe this virus is a creation of some super power country like China or U.S.A.

Figure 3: Main reasons for the spread of COVID-19

32.5

12.5

28

11.5

15.5

Haram Food (%)   Climate change (%)   Deviation from Religious teachings (%)   War Tactics (%)   No Idea (%)

The data presented in Figure 4, shows that were of the opinion that COVID-19 may result in social problems (34.5%), followed by health problems (27.5%), followed by economic problems (23.5%) and 14.5% respondents were of the opinion that they have no idea about this. It is obvious long lockdown of the world trade will result in economic problems which in turn can give birth to many social problems, religious problems and political problems. The people of Kashmir are more worried as they believe we don't have good health facilities in Jammu and Kashmir. They were cautious about the damage caused by COVID-19 worldwide but were not aware about precautions. In many villages people use to travel or work as in normal days ignoring the health ministry advisory. A number of cases surfaced recently in Kashmir where travelers hide their travel history thus created huge problem for themselves, their family and whole society. The respondents understudy were of the opinion that COVID-19-19 spread may result in many social, health and economical problems as noticed with the spread of other disasters. The effects of a disaster last a long time as disaster-affected countries loose a large amount of their financial and material resources in the immediate post impact phase. Disasters which affects agriculture economies as well as tourism can have lasting consequences on livelihoods, economies and fiscal balances. It is important people and government work together for the welfare of the society also identify those people who hide their travel history for the welfare of whole system.

Figure 4: The immediate and longterm impacts of COVID-19 on Society

The picture 1, shows the careless of rural people towards COVID-19 spread threat. They are not well aware about the ways of spread of this deadly disease. It is important that every citizen should realize his/her role in preventing the spread of COVID-19 by maintaining the social distance. In the picture 2, it is noticed that migrant workers are supported by government and people of Kashmir as usual in difficult times to some extent. The developed countries like USA, Italy are in deep trouble as they do not it serious at the initial stage. We do not have standard health facilities here so it is important people take all precautionary measures to prevent its spread till some vaccine/treatment is developed by scientists. The battle against COVID-19 can not be won by words but by actions of the government on ground. To break the increasing chains of COVID-19 spread, the government has to reduce the chances of law and order lapses and mismanagement of the accommodation and food facilities for the migrant workers, students and traders working in different states.

Picture1: Failure of lockdown   Picture 2: Distribution of free ration to migrant workers

4. CONCLUSIONS

The COVID-19 causes flu-like symptoms generally including a fever and cough. In elderly and others with other chronic health conditions, the COVID-19 symptoms can extend into pneumonia, with chest tightness, shortness of breath and chest pain. The COVID-19 initiate with a fever, followed by a dry cough and after a week, it can lead to shortness of breath, with about 20% of COVID-19 patients requiring hospital treatment. The current study revealed that rural people have average knowledge about COVID-19 and show average practices towards COVID-19 outbreak. It is very essential to understand our limited health facilities, care ourselves by washing hands frequently with soap and water, exercise daily, avoid touching face with unwashed hands and avoid travelling to level 3 risk areas especially to areas labeled as Red Zone by government. It is expected, under the combined sincere efforts of Government, NGOˢ and all Kashmiri people, Kashmir definitely in the near future will win the battle against COVID-19. The people understudy feared, if COVID-19 is not controlled soon, it may give birth to many problems like loss of livelihood, domestic violence, mental health issues and loneliness. It is concluded that it is a testing time for every individual so people should realize the importance of public health, personal hygiene, community hygiene, environmental hygiene, epidemiology which people generally ignore. The curtailment of social contact is the key factor to reduce the spread of COVID-19. Finally, it is suggested that more studies on this topic are needed with increased sample size.

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