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Health awareness and health well-being among people of central Kashmir in Kashmir valley during COVID-19 pandemic

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Abstract

The current study focuses on health awareness and health knowledge among people of central Kashmir in Kashmir valley during COVID-19 pandemic. Worldwide COVID-19 epidemic cases are increasing at a very fast rate posing a challenge to psychological resilience, economy and social life of people. In this paper, a well-designed validated questionnaire was used to collect the information from a sample of 400 respondents chosen at random via offline and online modes from Central Kashmir in Kashmir valley. The data collected was analyzed using standard statistical tools. The current study revealed that majority of respondents were not aware of the symptoms, causes and preventions of COVID-19. Majority of the respondents believe that rate of transmission of COVID-19 depends on various factors like age, gender, climatic conditions etc. The respondents reported that they were using family, print and electronic media as a medium to seek health information and status of COVID-19. Most of the respondents were of the opinion that lockdown is a temporary solution as it has resulted in other problems like psychological problems (55.5%), social problems (62.5%), economic problems (59.5%) and academic problems (81.5%). The respondents (66.5%) believed that COVID-19, heart attacks and cold climate are linked to each other. Majority of the respondents were health conscious and they suggested that people should follow WHO and health ministry guidelines to cope with the spread of COVID-19. They believe that we can protect ourselves by washing our hands frequently, avoiding touching our face and avoiding close contact (1 meter or 3 feet) with people who are unwell. It was suggested that to cope with COVID-19 threat, people of Kashmir should follow WHO guidelines and health ministry, involve themselves in physical, religious and social activities.

Keywords: Kashmir, health awareness, COVID-19 and health, health knowledge, statistics

Introduction

Corona virus disease (COVID-19) is an infectious disease which causes respiratory illness (like the flu) with symptoms such as cough, fever and in more severe cases, difficulty breathing. In COVID-19, 'CO' stands for 'corona', 'VI' for 'virus', and 'D' for disease. Formerly, this disease was referred to as "2019 novel corona virus" or "2019-nCoV". There are several types of human corona viruses including some that commonly cause mild upper-respiratory tract illnesses. People at higher risk for severe disease are older adults and people of any age with serious chronic medical conditions (such as heart disease, lung disease or diabetes). The most common symptoms of COVID-19 are fever, cough, shortness of breath and breathing difficulties. It is observed that in more severe cases infection can cause pneumonia, severe acute respiratory syndrome and even death to patients. The period within which the symptoms of COVID-19 would appear is 2-14 days. The emergence of novel corona virus SARS-CoV-2 (referred to as the COVID-19 virus) in Wuhan China has added new member to the human corona virus family and maximum countries are following the advice from the World Health Organization (WHO) regarding the introduction of physical distancing measures as one of the ways to reduce to a greater extent the transmission of the COVID-19 disease. The epicenter of COVID-19 virus has been considered the sea food market in Wuhan (Chen *et al.*, 2020) [5]. Recent studies have shown that COVID-19 is spread by direct touch with respiratory droplets (WHO, COVID-19 situation Report – 66). It was reported (Liu *et al.*, 2020) [12] that breathing droplets as a function of becoming heavy may be

collected on various surfaces and if an individual comes into contact with these surfaces may become affected. The researchers reported that there is little proof of COVID-19 virus replication in drinking water or waste (WHO, 2011 and Water and Sanitation, Water Research Australia, 2020) [13, 14]. The COVID-19 virus has been declared as pandemic and every possible step should be taken to decrease the graph of this deadly virus. The first and significant thing is to consider the alternatives where direct contact with virus can be reduced. People everywhere in the world suffered due to COVID-19 lockdown as the fear of the pandemic affected people economically, socially and mentally. Worldwide COVID-19 pandemic threatens the regular life of every individual and when people are threatened by insecurity and the fear of sickness increases, worry and stress develops as a reaction. In every person's mind the only question comes on thinking about the pandemic vaccine. It is a well-known fact that the immunity of the body is the best prevention against this virus and the best security option available is change in lifestyle. The current situation forced people to have better health consciousness and more desire to know about health concerns because of COVID-19 spread threat. The COVID-19 lockdown resulted in reduction of outdoor games and exercise; people of different age were encouraged by WHO to have home-related exercises to increase physical and mental health of the people (WHO, 2020) [14]. In the literature we come across various studies related to COVID-19 spread and impact of COVID-19 on the psychological and social life (e.g., Bilal *et al.*, 2020) [3]. Currently the corona virus COVID-19 is affecting 218 countries and territories around the world and 2 international conveyances. It is published via European Centre for Disease Prevention and Control, An agency of the European Union that since 31 December 2019 and as of 14 December 2020, 71, 503, 614 cases of COVID-19 (in accordance with the applied case definitions and testing strategies in the affected countries) have been reported, including 1, 612, 833 deaths. COVID-19 positive cases have been reported from:

Africa: In Africa there are 2, 379, 827 cases; the five countries reporting most cases are South Africa (860, 964), Morocco (399, 609), Egypt (121, 575), Ethiopia (116, 769) and Tunisia (111, 361).

Asia: In Asia there are 16, 782, 046 cases; the five countries reporting most cases are India (9, 884, 100), Iran (1, 108, 269), Indonesia (617, 820), Iraq (574, 634) and Bangladesh (490, 533).

America: In America there are 30, 887, 593 cases; the five countries reporting most cases are United States (16, 256, 754), Brazil (6, 901, 952), Argentina (1, 498, 160), Colombia (1, 425, 774) and Mexico (1, 250, 044).

Europe: In Europe there are 21, 400, 012 cases; the five countries reporting most cases are Russia (2, 653, 928), France (2, 376, 852), United Kingdom (1, 849, 403), Italy (1, 843, 712) and Spain (1, 730, 575).

Oceania: 53, 440 cases; the five countries reporting most cases are Australia (28, 031), French Polynesia (15, 618), Guam (7, 106), New Zealand (1, 740) and Papua New Guinea (725).

Other: In international conveyance in Japan there are 696 cases reported.

Worldwide distributions of deaths caused by COVID-19 are reported as

Africa: In Africa there are 56, 334 deaths; the five countries reporting most deaths are South Africa (23, 276), Egypt (6, 920), Morocco (6, 624), Tunisia (3, 894) and Algeria (2, 596).

Asia: In Asia there are 290, 129 deaths; the five countries reporting most deaths are India (143, 355), Iran (52, 196), Indonesia (18, 819), Iraq (12, 579) and Pakistan (8, 832).

America: In America there are 785, 420 deaths; the five countries reporting most deaths are United States (299, 177), Brazil (181, 402), Mexico (113, 953), Argentina (40, 766) and Colombia (39, 053).

Europe: In Europe there are 479, 789 deaths; the five countries reporting most deaths are Italy (64, 520), United Kingdom (64, 170), France (57, 911), Spain (47, 624) and Russia (46, 941).

Oceania: In Oceania there are 1, 154 deaths; the five countries reporting most deaths are Australia (908), Guam (118), French Polynesia (91), New Zealand (25) and Papua New Guinea (8).

Other: In international conveyance in Japan there are 7 deaths so far.

Table 1: The distribution of COVID-19 cases in India state-wise till December 14, 2020

State/UT	Total cases	Active cases	Deaths	Cured
Total	9906507	21791	338361	144866
Andaman and Nicobar Islands	4, 834	92	4, 681	61
Andhra Pradesh	875, 836	4, 728	864, 049	7, 059
Arunachal Pradesh	16, 536	238	16, 243	55
Assam	214, 803	3, 501	210, 299	1, 003
Bihar	242, 660	5, 088	236, 247	1, 325
Chandigarh	18, 714	714	17, 698	302
Chhattisgarh	258, 635	18, 931	236, 588	3, 116
Dadra and Nagar Haveli and Daman and Diu	3, 359	19	3, 338	2
Delhi	608, 830	15, 247	583, 509	10, 074
Goa	49, 474	1, 030	47, 737	707
Gujarat	228, 803	13, 018	211, 603	4, 182
Haryana	253, 385	9, 108	241, 544	2, 733
Himachal Pradesh	49, 761	6, 948	41, 990	823

Jammu and Kashmir	116, 254	4, 558	109, 894	1, 802
Jharkhand	111, 722	1, 581	109, 141	1, 000
Karnataka	902, 240	16, 084	874, 202	11, 954
Kerala	672, 037	57, 790	611, 600	2, 647
Ladakh	9, 166	614	8, 429	123
Lakshadweep	0	0	0	0
Madhya Pradesh	224, 636	12, 803	208, 421	3, 412
Maharashtra	1, 883, 365	73, 481	1, 761, 615	48, 269
Manipur	27, 209	2, 146	24, 739	324
Meghalaya	12, 941	753	12, 058	130
Mizoram	4, 049	173	3, 869	7
Nagaland	11, 728	593	11, 066	69
Odisha	324, 089	2, 820	319, 458	1, 811
Puducherry	37, 513	307	36, 586	620
Punjab	160, 659	6, 881	148, 680	5, 098
Rajasthan	292, 539	16, 200	273, 784	2, 555
Sikkim	5, 340	303	4, 919	118
Tamil Nadu	800, 029	10, 039	778, 081	11, 909
Telangana	278, 599	7, 272	269, 828	1, 499
Tripura	33, 057	314	32, 367	376
Uttarakhand	83, 006	6, 144	75, 501	1, 361
Uttar Pradesh	566, 728	18, 918	539, 727	8, 083
West Bengal	523, 629	21, 384	493, 145	9, 100

Table 2: The distribution of COVID-19 cases in Jammu and Kashmir, district-wise till December 14, 2020

Districts of Jammu and Kashmir	Total cases	Active cases	Deaths	Cured
Total	116254	109894	1802	4558
Anantnag	4667	4483	82	102
Bandipora	4548	4378	57	113
Baramulla	7746	7381	169	196
Badgam	7327	6935	105	287
Doda	3296	3101	58	137
Ganderbal	4358	4225	41	92
Jammu	22257	21123	332	802
Kathua	3021	2859	45	117
Kishtwar	2671	2502	21	148
Kulgam	2628	2509	52	67

It is encouraging that the recovery rate in Jammu and Kashmir is increasing continuously but in COVID-19 spread there is not much decline yet.

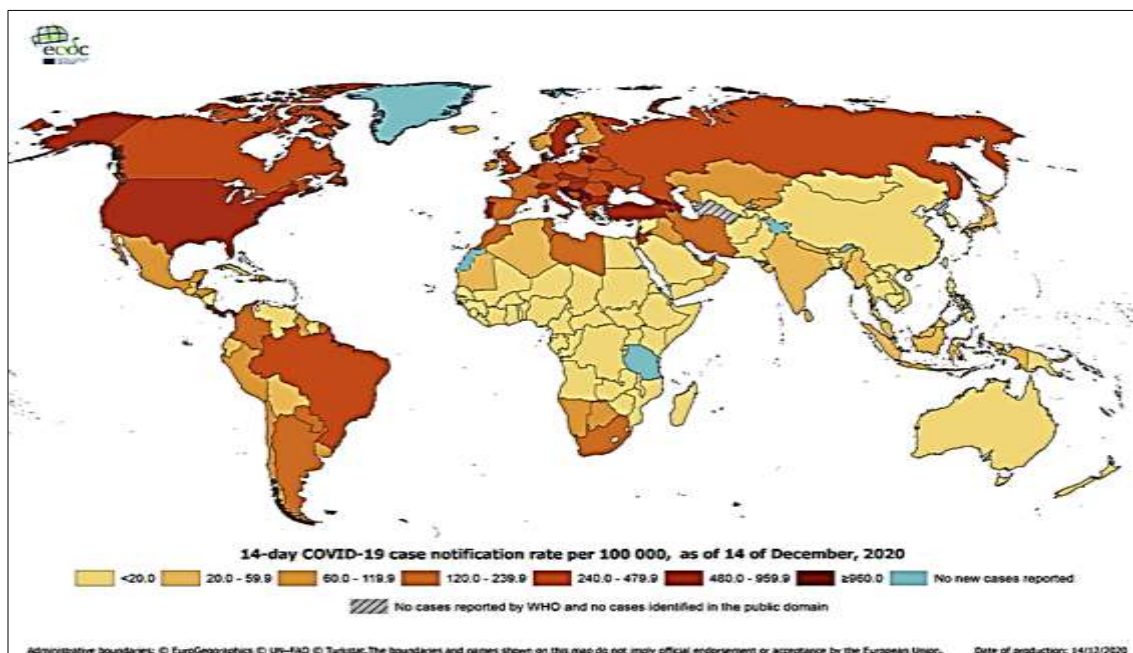


Fig 1: Geographic distribution of 14-day cumulative number of reported COVID-19 cases per 100, 000 population, worldwide, as of 14 December 2020

Health consciousness refers to the level to which an individual is likely to carry out actions related to health (Becker, *et al.* 1977) [2], is a crucial psychological variable to understand many health-related behaviors today. It has been reported (Iversen & Kraft, 2006; Basu & Dutta, 2008) [1, 11] that an individual's level of health awareness is closely linked to how he or she seeks and responds to health information. It is obvious that individuals' health awareness is essential in planning health interventions. It is reported (Gould, 1988) [9] that health awareness is a psychological or inner status of a person that motivates a person for action and people with increased health-awareness are more likely to involve in health-related activities and are healthier. Further, it is reported (Divine & Lepisto, 2005) that food and physical activities are associated with people's health awareness. It is reported (Gould, 1990) [10] that health awareness predicts a variety of health attitudes and behaviors. The sources of health information (newspapers, magazines, Internet, family, friends and other mass media) and knowledge of healthy behavior are important factors that often interact with health awareness (Bonanno, 2002; Dutta-Bergman, 2007) [4, 8]. The health consciousness, perceived awareness through knowledge play very important role in the behavior and action of people.

The major religions of the world guide people how to deal with the disease. Islam has a distinctive way of dealing with the outbreak of diseases in two stages; i.e., before and after the outbreak of the disease. Islam calls Muslims to protect themselves against diseases before the outbreak of the disease through the cleanliness as Prophet Muhammad (peace be upon him) said: "Purification is half of faith." (Muslim) Islam made ablution a pre-requisite for the validity of prayer. Islam made lawful for Muslims all the good foods and drinks and made unlawful to them all what causes harm to them and their 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. Islam calls its followers to protect themselves against diseases after the outbreak of the disease through this guideline. When a Muslim is afflicted with a certain disease, he has to look at it as a test from Allah. Islam orders Muslims to seek medication, if ill. When there is an outbreak of a disease, Islam commands Muslims to practice quarantine. Prophet Muhammad (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).

Kashmir once worldwide known for its beauty is at present considered a war zone. The political turmoil in Kashmir had impact on the mental health of the youth of Kashmir which is much heavier than the COVID-19 threat. Mental health as per WHO is a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make contribution to his or her community. Thus, mental health is the foundation for individual well-being and the effective functioning of a community. Mental health becomes a disability if it has long term effect on normal day to day activity which is something an individual does regularly in a normal day. In Kashmir, on average an adult has witnessed or experienced 7.7 traumatic events during his/her lifetime. The adults living in Kashmir besides COVID-19 threat face financial issues, poor health and unemployment problems. In view of the literature cited above on COVID-19 and

Health awareness, we chose current study with the main objective to assess the approach of people in central Kashmir valley towards Health Consciousness and Health Well-being during COVID-19 Pandemic 2020.

Methodology

In the current study, a well-designed questionnaire was used to collect the information from 400 people living in central Kashmir (Ganderbal, Srinagar and Budgam district) of Kashmir valley using simple random sampling method via online and offline mode. The sample size for present survey was calculated following Cochran, 1977 as

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

We chose here $p = 0.5$, $Z_{\alpha} = 1.96$ and $d = 0.05$. That gives the sample size $n \sim 384$ and we chose $n = 400$. The data collected was tabulated, analyzed and interpreted statistically.

Results and Discussion

The data collected from 400 respondents (300 male and 100 female) revealed that their sources of information for COVID-19 spread were family (58.5%), friends (51.5%), print media (41.5%) and electronic media (76.5%). It was observed that the respondents under study irrespective of gender, age or residence were equally concerned towards COVID-19 spread and their safety.

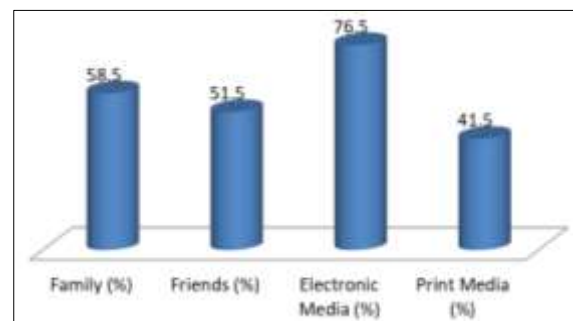


Fig 1: Source of information on COVID-19 spread among respondents under study

The data shown in Table 1, revealed that in response to statement 1, (i.e. Do you agree that COVID-19 will finally be successfully controlled), 68% respondents agree, in response to statement 2, (i.e. Unlike the common cold, stuffy nose, runny nose, and sneezing are less common in persons infected with the COVID-19 virus), 48.5% agree, in response to statement 3, (i.e. There is currently no effective cure for COVID-2019, but early symptomatic and supportive treatment can help most patients recover from the infection), 73.5% respondents agree, in response to statement 4, (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), 54.5% respondents agree, in response to statement 5, (i.e. Eating or contacting wild animals would result in the infection by the COVID-19 virus), 66.0% respondents disagree, in response to statement 6, (i.e. Persons with COVID-2019 cannot infect the virus to others when a fever is not present), 85.0% respondents disagree, in response to statement 7, (i.e. The COVID-19 virus spreads via respiratory droplets of infected individuals), 82.5%

respondents agree, in response to statement 8, (i.e. Ordinary residents can wear general medical masks to prevent the infection by the COVID-19 virus), 84.5% respondents agree, in response to statement 9, (i.e. It is not necessary for children and young adults to take measures to prevent the infection by the COVID-19 virus), 96.5% respondents disagree, in response to statement 10, (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), 83.5% respondents agree, in response to statement 11, (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), 91.5% respondents agree, in response to statement 12, (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), 94.5% respondents agree, in response to statement 13, (i.e. the rate of transmission of COVID-19 depends on various factors such as age, sex, climatic condition), 79.5% respondents agree. The results of our study partially coincide with earlier studies (Bilal *et al.*, 2020) [3]. The role, functionality and objectivity of a number of organizations across the world got exposed by COVID-2019. The height of human helplessness is realized with no vaccine or efficient curable medicine to COVID-19 victim and it caged human beings into houses and emancipated animals, birds, flora and fauna.

Table 1: Health awareness and health knowledge among people of central Kashmir during COVID-19 pandemic

S. No.	Statement	Agree (%)	Disagree (%)	Don't know (%)
1	Do you agree that COVID-19 will finally be successfully controlled?	272 (68.0)	50 (12.5)	78 (19.5)
2	Unlike the common cold, stuffy nose, runny nose, and sneezing are less common in persons infected with the COVID-19 virus.	194 (48.5)	114 (28.5)	92 (23.0)
3	There is currently no effective cure for COVID-2019, but early symptomatic and supportive treatment can help most patients recover from the infection.	294 (73.5)	46 (11.5)	60 (15.0)
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.	218 (54.5)	106 (26.5)	76 (19.0)
5	Eating or contacting wild animals would result in the infection by the COVID-19 virus.	54 (13.5)	264 (66.0)	82 (20.5)
6	Persons with COVID-2019 cannot infect the virus to others when a fever is not present.	12 (3.0)	340 (85.0)	48 (12.0)
7	The COVID-19 virus spreads via respiratory droplets of infected individuals.	330 (82.5)	16 (4.0)	54 (13.5)
8	Ordinary residents can wear general medical masks to prevent the infection by the COVID-19 virus.	338 (84.5)	28 (7.0)	34 (8.5)
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)	386 (96.5)	10 (2.5)
10	To prevent the infection by COVID-19, individuals should avoid going to crowded places such as train stations and avoid taking public transportations.	334 (83.5)	22 (5.5)	44 (11.0)
11	Isolation and treatment of people who are infected with the COVID-19 virus are effective ways to reduce the spread of the virus.	366 (91.5)	12 (3.0)	26 (6.5)
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.	378 (94.5)	6 (1.5)	16 (4.0)
13	The rate of transmission of COVID-19 depends on various factors such as age, sex, climatic condition.	318 (79.5)	48 (12.0)	34 (8.5)

The data shown in Figure 2, in response to questions asked to respondents related to problems caused by COVID-19 spread, 53.5% reported physical health problems, 56.5% reported mental health problems, 61.5% respondents reported social problems, 76.5% respondents reported academic problems and 61.5% reported economic problems.

The survey and group discussions revealed that people under study possessed good health awareness and health knowledge in current COVID-19 disease but they lack in practice. There are certain areas in the study location where despite many qualified people, COVID-19 spread was maximum.

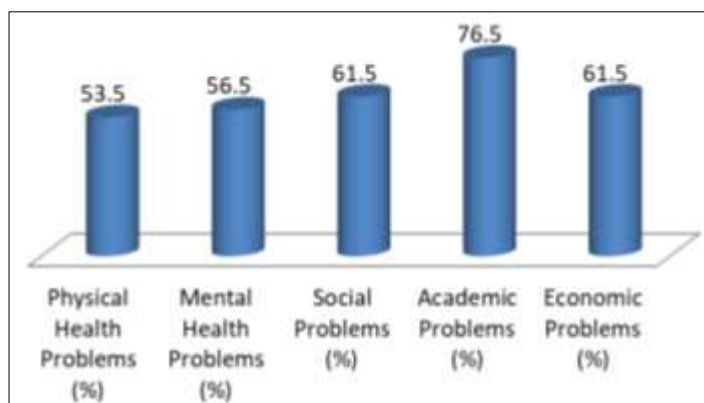


Fig 2: The main problems caused by COVID-19 spread among people of central Kashmir

The data shown in Figure 3, revealed that majority of the respondents were of the opinion that COVID-19, heart

attack and winter season are strongly related. Worldwide Researchers/Cardiologists are reporting a marked increase in

sudden cardiac deaths even as the current focus has shifted to the challenges from COVID-19 and other communicable diseases. The researchers reported that there are up to 53 percent more heart attacks in winter season than in summer and according to the studies published in European Journal

of Epidemiology, for every 2.9 degree centigrade decline in temperature, the number of strokes in general population goes up by 11 percent. But among those already at high risk due to raised blood pressure, smoking or being overweight the increase is 30 percent.

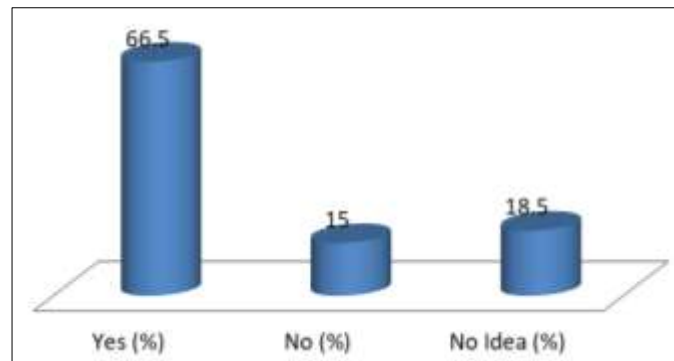


Fig 3: COVID-19, Heart attack and winter season are strongly related

The data shown in Table 3, revealed in response to statement related to COVID-19 spread in Kashmir, majority of respondents strongly agree that negligence of government and people leads to rapid COVID-19 spread in Kashmir.

People in Kashmir took lockdown as routine curfew/hartal and didn't follow it as per WHO and health ministry guidelines. Statistically, there was non-significant difference in the opinion of male and female respondents ($P > 0.05$).

Table 3: Government and negligence of people leading to rapid COVID-19 spread in Kashmir

Respondent	Agree (%)	Strongly agree (%)	Disagree (%)	Strongly disagree (%)	Don't know (%)
Male	27 (27.00)	39 (39.00)	14 (14.00)	12 (12.00)	8 (8.00)
Female	69 (23.00)	97 (32.33)	37 (12.33)	43 (14.34)	54 (18.00)

Chisquare = 6.779, P-value > 0.05

Conclusion

The present study mainly focused on health awareness and health knowledge of people living in central Kashmir of Kashmir valley during COVID-19 Pandemic 2020. The respondents were highly conscious about their health and they identify health consciousness and healthy life with physical fitness, nutritious food and stress-free life. The COVID-19 crisis affected different sectors in different ways e.g., education, health, production, transportation and business. COVID-19 is considered as a warning for humans living on earth, it gave us a chance to think about the importance of nature and its preservation. Majority of the respondents seek health information via interpersonal network of friends and family members, media channels and reading blogs from electronic and print media. The respondents believed that the main problems caused by COVID-19 spread were physical health problems (53.5%), mental health problems (56.5%), social problems (61.5%), academic problems (76.5%) and economic problems (61.5%). The study revealed that majority of the respondents were of the opinion that COVID-19, heart attack and winter season are strongly related. It is important in present COVID-19 threat and winter season as co-morbidity is a concern with COVID-19, for healthy heart one must do proper exercise, take balanced diet, do regular health checkups, manage stress, blood sugar, cholesterol, blood pressure and avoid smoking. It hardly matters if a person is in 30s or 50s, warning signs should not be ignored. The latest statistics shows that people in 20s, 30s and 50s are more often falling victim to these cardiovascular attacks. The survey and group discussions revealed that people from study area possessed good health awareness and health knowledge in current COVID-19 disease but they lack in

practice. Finally, it was suggested that to cope with COVID-19 threat, people of Kashmir should involve themselves in physical activities, religious activities and social activities. To avoid COVID-19 disease people should follow WHO and health ministry guidelines.

Acknowledgement

The authors thank all the respondents who participated in this study. The purpose of writing this paper was to interact with people of study area personally or via electronic media to make them aware about healthy life and COVID-19 spread.

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