

Research Article

A Descriptive Study to Assess the Knowledge regarding Preventive Measures and to Identify the Coping Strategies related to COVID-19 among Adult Population in a Selected Area of Kashmir

Aasima Rashid¹, Seema Rani², Naseem Mancheri³

¹M. Sc. Nursing Student, ²Associate Professor, ³Tutor, Rufaida College of Nursing, Jamia Hamdard (Deemed to be University), New Delhi, India.

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Corresponding Author:

Seema Rani, Rufaida College of Nursing, Jamia Hamdard (Deemed to be University), New Delhi, India.

E-mail Id:

seema9rani@yahoo.co.in

Orcid Id:

<https://orcid.org/0000-0002-3133-448X>

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A B S T R A C T

Introduction: The outbreak of COVID-19 has been declared a public health emergency as the virus has spread to many countries and territories. Its further transmission needs to be prevented. Hence, the researchers felt the need to assess the knowledge regarding preventive measures and to identify the coping strategies related to COVID-19.

Objectives: The study was taken to assess the knowledge regarding preventive measures related to COVID-19, to identify the coping strategies related to COVID-19, and to seek the association between the knowledge regarding preventive measures related to COVID-19 and selected demographic variables.

Methodology: Quantitative approach using a descriptive research design was incorporated to conduct the study on 100 adult members. A self-structured questionnaire was used to assess the knowledge regarding preventive measures related to COVID-19 and a brief cope (standardised tool) was used to identify the coping strategies related to COVID-19. Online Google survey forms were distributed to samples using their mail id.

Results: It was found that 65% of study subjects had adequate knowledge regarding preventive measures related to COVID-19. The study subjects scored better in approach coping and low in avoidant coping. There was a significant association between knowledge regarding preventive measures related to COVID-19 with selected demographic variables i.e. age, gender, and educational qualification.

Conclusion: The study concluded that adult members had adequate knowledge regarding preventive measures and adopted healthier coping strategies related to COVID-19.

Keywords: COVID-19, Knowledge, Preventive Measures, Coping

Introduction

The outbreak of COVID-19 has been declared a public health emergency as the virus has spread to many countries and territories. The virus is mostly transmitted through direct contact with respiratory droplets of an infected person generally through coughing and sneezing. An individual can also be infected by touching surfaces contaminated with the virus and by touching his/her face. While COVID-19 continues to spread, it is important that communities take action to prevent further transmission, reduce the impact of the outbreak, and support control measures.¹

COVID-19 is an infectious disease caused by severe acute respiratory syndrome Coronavirus 2. It was first identified in December 2019 in Wuhan, Hubei, China, and has resulted in an ongoing pandemic. As of August 18, 2020, more than 21.8 million cases had been reported across 188 countries and territories, resulting in more than 773,000 deaths, and more than 13.8 million people who had recovered.²

Common symptoms include fever, cough, fatigue, shortness of breath, and loss of smell and taste. While most people have mild symptoms, some people develop acute respiratory distress syndrome possibly precipitated by cytokine storm, multi-organ failure, septic shock, and blood clots. The time from exposure to onset of symptoms is typically around five days but may range from two to fourteen days.²

The virus is spread primarily via small droplets produced by coughing, sneezing, and talking. The droplets usually fall to the ground or onto surfaces rather than travelling through air over long distances. However, those standing in close proximity may inhale these droplets and become infected. People may also become infected by touching a contaminated surface and then touching their face. The transmission may also occur through smaller droplets that are able to stay suspended in the air for longer periods of time in enclosed spaces. It is most contagious during the first three days after the onset of symptoms, although the spread is possible before symptoms appear, and from people who do not show symptoms.³

The standard method of diagnosis is by real-time reverse transcription-polymerase chain reaction from a nasopharyngeal swab. Chest CT imaging may also be helpful for diagnosis in individuals where there is a high suspicion of infection based on symptoms and risk factors; however, guidelines do not recommend using CT imaging for routine screening.²

Recommended measures to prevent infection include frequent hand washing, maintaining physical distance from others, quarantine, covering coughs, and keeping unwashed hands away from the face. The use of cloth face coverings such as a scarf or a bandana has been recommended by health officials in public settings to minimise the risk of

transmissions. Health officials stated that medical-grade face masks, such as N95 masks, should be used only by healthcare workers, first responders, and those who directly care for infected individuals. There are no proven vaccines or specific antiviral treatments for COVID-19. Its management involves the treatment of symptoms, supportive care, isolation, and experimental measures.⁴

COVID-19 can be stressful for people. Fear and anxiety about a new disease and 'what could happen' can be overwhelming and cause strong emotions in adults and children. Public health actions such as social distancing can make people feel isolated and lonely and can increase stress and anxiety. However, these actions are necessary to reduce the spread of COVID-19. Stress during an infectious disease outbreak can sometimes cause fear, change in sleep or eating patterns, worsening of chronic or mental health conditions etc.⁵

Everyone reacts differently to stressful situations. These situations depend on a person's background, social support from family or friends, financial situation, community the person lives in, and many other factors. Helping others to cope with their stress such as by providing social support can make a community stronger. During the time of increased social distancing, people can still feel socially connected through phone calls or video chats.⁵ Feelings of isolation, depression, anxiety, and other emotional or financial stresses are known to raise the risk of suicide. People may be more likely to experience these things during a crisis like a pandemic. Support from family and community, feeling connected and having access to in-person counselling or therapy can help with suicidal thoughts and behaviour. It can also be stressful to be separated from others if a person has or is exposed to COVID-19. Each person ending a period of home isolation may feel differently about it. Children may also feel upset or have strong emotions if they or someone they know has COVID-19.⁶

Knowledge regarding preventive measures of COVID-19 is important among family members especially elders as they are at high risk of getting an infection since they are already suffering from other medical conditions like diabetes. Every person has different responses to stressful situations, so one needs to understand the different coping measures or strategies used by family members during this time of COVID-19.

Also, the implementation of lockdown and movement restrictions has affected the financial condition of family members. There may be financial problems among the people which can affect a person's physical as well as mental health. So one needs to understand how lockdown and complete restriction of movement has affected the people and how they manage such situations.

In light of the above, the current descriptive study was undertaken to assess the knowledge regarding preventive measures and to identify coping strategies among the population related to COVID-19 in a selected area of Kashmir. Also, the study aimed to seek the association between knowledge regarding preventive measures related to COVID-19 with selected demographic variables (age, gender, educational qualification) among the adult population.

Methodology

Quantitative approach was incorporated to conduct the study using a descriptive research design. Research variables were assessment of knowledge regarding preventive measures related to COVID-19 and identification of coping strategies related to COVID-19. 100 adult members were selected as the study sample using convenient sampling technique. The study was delimited to subjects who had access to smartphones, were internet users, could comprehend English, and had not yet suffered from COVID-19. Ethical clearance was sought from Institutional Ethical Committee, Jamia Hamdard. The study was conducted during the month of October 2020.

The tools used for conducting the study were a self-structured questionnaire to assess the knowledge regarding preventive measures related to COVID-19 and a brief cope (standardised tool) to identify the coping strategies related to COVID-19. Online Google survey forms were distributed to samples using their email ids. The tool was divided into 3 sections; Section A was the questionnaire related to sociodemographic data, Section B was the questionnaire to assess the knowledge regarding preventive measures of COVID-19, and Section C was the Brief Cope to identify the coping strategies for COVID-19. Section A included 6 questions related to sociodemographic data of subjects i.e. age in years, gender, educational qualification, occupation, religion and monthly per capita income of the family. Section B included 35 multiple choice questions, each with a single correct answer. Each correct answer was awarded a score of 01 and an incorrect answer or unanswered was awarded 0. Section C included a 28 item self-report questionnaire with 12 items in approach coping, 12 items in avoidant coping, and the remaining 4 as neutral coping (neither approach nor avoidant). The study subjects were given consent forms through online mode through Google forms. If they gave their consent, only then they could proceed to the next section of the tool. All the items were mandatory to answer before submission of the tool. To ensure the validity of the content, the tool was given to 7 experts from the field of medicine and nursing. The suggestions from different experts were incorporated into the tool and accordingly, the tool was modified. The reliability of the tool was checked by the test-retest method i.e. Karl Pearson's correlation coefficient, and it was found reliable at $r = 0.97$.

Once the tool was ready, it was administered by the researcher to conduct the study. It took around 20-30 minutes for each study subject to complete the knowledge questionnaire and brief cope. After conducting the study, the study subjects submitted their response and it was received online on Google drive. The responses which were received online on Google drive were recorded in the master excel sheet. Descriptive and inferential statistics were used to analyse the data.

Results

Section I: Findings related to Sociodemographic Variables of Study Subjects

Table 1. Frequency and Percentage Distribution of Study Subjects related to Socio-demographic Variables

N = 100		
Socio-demographic Variable	Frequency	Percentage
*Age group (in years)		
18-28	41	41
28-38	34	34
38-48	14	14
48-58	11	11
Gender		
Male	51	51
Female	49	49
Educational qualification		
10+2	21	21
Graduate	45	45
Post Graduate and above	34	34
Occupation		
Govt employee	47	47
Private employee	11	11
Housewife	14	14
Business person	7	7
Any other	21	21
Religion		
Islam	90	90
Sikhism	10	10
*Monthly income (in INR)		
5000-10000	15	15
10000-15000	17	17
15000-20000	68	68

*Mean age \pm SD: 32.5 \pm 9.94

*Mean monthly income \pm SD: 15150 \pm 3750.06

Table 1 shows that majority of the subjects i.e. 41% were in the age group of 18-28 years, 51% were male, 45% were

graduates, 47% were government employees, 90% followed Islam, and 68% had monthly family income in the range of INR 15,000 to 20,000.

Section 2: Findings related to Assessment of Knowledge regarding Preventive Measures of COVID-19

Table 2 reveals that 65% of subjects had adequate knowledge while 35% had inadequate knowledge regarding the prevention of COVID-19.

Table 2. Distribution of Study Subjects related to Assessment of Knowledge regarding Preventive Measures of COVID-19 among Adult Population in a Selected Area of Kashmir

N = 100		
Categories	Frequency	Percentage
Adequate knowledge (Score 28-35)	65	65
Inadequate knowledge (Score 0-27)	35	35

Table 3. Distribution of Study Subjects related to Identification of Coping Strategies (Item-wise) among Adult Population in a Selected Area of Kashmir

N = 100			
Coping Strategy	Way of Coping	Item Number of Brief Cope Tool	Percentage of Subjects
Approach	Active coping	2 and 7	88
	Emotional support	5 and 15	84.5
	Use of informational support	10 and 23	90
	Positive reframing	12 and 17	86.5
	Planning	14 and 25	87
	Acceptance	20 and 24	94
Avoidant	Self-distraction	1 and 19	84
	Denial	3 and 8	53
	Substance use	4 and 11	15.5
	Behavioural disengagement	6 and 16	58.5
	Venting	9 and 21	67
	Self-blame	13 and 26	56.5
Neutral	*Humour	18 and 28	38
	*Religion	22 and 27	92

*denotes neutral coping (neither included in Approach Coping nor in Avoidant Coping)

Table 4. Mean, Median, Mode, Standard Deviation, and Range of Coping Score among Adult Population in a Selected Area of Kashmir

N = 100						
Coping Strategy	Possible Range of Score	Obtained Range of Score	Mean	Median	Mode	Standard Deviation
Avoidant	12-48	13-36	22.83	23	21	4.93
Approach	12-48	13-47	32.61	33	32	6.10

Section 3: Findings related to Identification of Coping Strategies

Table 3 shows that more subjects adopted approach coping than avoidant coping. Among avoidant coping strategies, self-distraction topped the list while among approach coping strategies, acceptance of the situation topped the list.

It is evident from Table 4 that mean, median, and mode scores for approach coping strategy are much higher than the respective scores for avoidant coping strategy.

Also, data revealed that more study subjects scored better in approach coping and lower in avoidant coping which means that the coping strategy adopted by the majority of the subjects was healthier.

Section 4: Findings related to Association between Knowledge and Selected Demographic Variables

The p value obtained in the case of age implied that there was a significant association between knowledge regarding preventive measures of COVID-19 and age among the adult population in a selected area of Kashmir.

Table 5. Association between Knowledge regarding Preventive Measures of COVID-19 and Selected Demographic Variables among Adult Population in a Selected Area of Kashmir

N = 100

Demographic Variables	Knowledge		χ^2 value	df	Table χ^2 value
	Adequate	Inadequate			
Age group (in years)					
18-28	31	10	*	3	*
28-38	25	9			
38-48	7	7			
48-58	2	9			
Gender					
Male	28	23	4.66	1	3.84
Female	37	12			
Educational Qualification					
10+2	12	9	8.35	2	5.99
Graduate	36	9			
Post Graduate and above	17	17			

*Fischer exact test was applied (since chi square test cannot be applied when the frequency is less than 5) and p value was obtained.

Table 5 depicts that the calculated chi square (χ^2) value (4.66) is greater than the table chi square (χ^2) value (3.84) at 0.05 level of significance. Thus, it was inferred that there was a significant association between knowledge regarding preventive measures of COVID-19 and gender among the adult population in a selected area of Kashmir at $p \leq 0.05$.

Regarding educational qualification, it was seen that the calculated chi square (χ^2) value of 8.35 is greater than the tabulated chi square (χ^2) value of 5.99 at 0.05 level of significance and thus it was inferred that there was a significant association between knowledge regarding preventive measures of COVID-19 and educational qualification among adult population in a selected area of Kashmir at $p \leq 0.05$.

Discussion

The findings of the present study revealed that most of the study subjects had adequate knowledge i.e. 65% and more subjects adopted a better coping strategy, i.e. approach coping. This may be attributed to better access to the internet and widespread information through media.

The results of the current study were in partial agreement with a previous study which was conducted by Rani S et al. It was a descriptive study to assess the knowledge regarding the prevention of coronavirus disease. In their study, findings revealed that 98.8% of community people had adequate knowledge. The low scores of knowledge in the present study compared to the previous study may be due to the scoring criterion which was 80% and above.⁷

The results of the present study are in line with a previous

study which was conducted by Azlan AA et al. It was a cross-sectional study done in Malaysia to assess the public knowledge, attitude, and practice towards COVID-19. In their study, the findings revealed that 80.5% of participants had adequate knowledge. The low scores of knowledge in the present study as compared to the previous study may be due to different places of study.⁸

The result of the present study is also partially in line with a previous study done by Ferdous Z et al. which was an online-based cross-sectional study on knowledge, attitude, and practice regarding COVID-19 in Bangladesh. In their study, the respondents were in the age group of 12-64 years, where 48.3% of respondents had adequate knowledge and 51.7% of respondents had inadequate knowledge while in the present study, 65% of study subjects have adequate knowledge and 35% have inadequate knowledge. The high score in the present study may be due to the study subjects being adults belonging to the age group of 18-58 years and the access to a lot of information through social media.⁹

The findings of the present study revealed that more subjects adopted approach coping strategy. The results of the current study also revealed that the most adopted coping strategies were acceptance followed by religion, use of informational support, and active coping which is similar to the results of the study conducted by Cinar S et al. to assess the coping strategies of chronic haemodialysis patients, in which the most frequently used coping strategies were turning to religion, active coping, and suppression of competing activities. The most adopted coping strategy, "religion" in the present study may be due to religious

belief being considered the basic and most important aspect of human life.¹⁰

Limitations

The limitations that occurred during the study were that after sending the tool to the subject, response time was long and response rate was very low, so telephonic reminders had to be given to the subjects many times, and also the use of questionnaire restricted the amount of information related to prevention of COVID-19 that could be collected from the study subjects as compared to the information that could be obtained if face to face interviews were taken.

Conclusion

The study concluded that majority of the adult members had adequate knowledge regarding preventive measures and adopted healthier coping strategies related to COVID-19. This may be attributed to social media and widespread information about COVID-19. Also, a planned teaching programme can be conducted to assess the pre and post-test knowledge regarding the prevention of COVID-19. A comparative study can be conducted on coping strategies adopted from the pandemic and other illnesses between rural and urban populations.

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Conflict of Interest: None

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