Original Article

A Comparative Study on Knowledge and Attitude related to COVID-19 disease among general public residing in selected Urban and Rural areas

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Abstract:

Introduction: COVID-19 is an emerging respiratory infection that was first discovered in December 2019, in Wuhan city, Hubei Province, China SARS-CoV-2 belongs to the larger family of ribonucleic acid (RNA) viruses, leading to infections, from the common cold, to more serious diseases, such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV). The main symptoms of COVID-19 have been identified as fever, dry cough, fatigue, myalgia, shortness of breath, and dyspnoea. COVID-19 is characterized by rapid transmission, and can occur by close contact with an infected person. The details on the disease are evolving, by the end of January 2020, the World Health Organization (WHO) announced a public health emergency of international concern and called for the collaborative effort of all countries, to prevent its rapid spread. The aimed of the study was to determine the knowledge, attitude and practices related to Covid-19 among urban and rural population. **Methodology:** The study was conducted at selected urban and rural areas, by using Descriptive survey research design. Total 200 samples were selected by using non probability convenient sampling technique. The population for the present study were general public residing in selected urban and rural area. **Results:** assessment of knowledge regarding COVID-19, shows that 63% population in rural area had poor average knowledge and 89% had average knowledge about it. The 89% rural people had unfavorable attitude about covid 19, and 59% had neutral attitude seen in urban population. **Conclusion:** Result of level of knowledge and attitude regarding Covid-19 shows that urban people had good knowledge and attitude regarding COVID-19 than rural people

Key words: Knowledge, Attitude, Covid -19, Urban, Rural

Introduction:

The corona virus disease 2019 (COVID-19) emerged in Wuhan, China at the end of 2019. Since then, it has spread to 200 countries and has been declared a global pandemic by the World Health Organization (WHO). To date, there are more than 20.5 million positive COVID-19 cases recorded with at least 43.4L deaths globally.[1]

Corona viruses are a large family of enveloped, no segmented positive- sense RNA virus belonging to Nidovirales order. A prominent feature of this virus is the club-shaped spike projections emanating from its surface, giving it the appearance of a solar corona.

They are known mainly to cause a variety of diseases in animals, especially in mammals and birds. Sometimes they can cause infections in humans like severe acute respiratory syndrome (SARS), Middle East respiratory syndrome (MERS), and now the coronavirus disease 2019 (COVID-19).[2]

The knowledge, attitudes and practices (KAP) toward COVID-19 play an integral role in determining a society's readiness to accept behavioral change measures from health authorities. KAP studies provide baseline information to determine the type of intervention that may be required to change misconceptions about the virus.

Assessing the KAP related to COVID-19 among the general public would be helpful to provide better insight to address poor knowledge about the disease and the development of preventive strategies and health promotion programs. Among the lessons learned from the SARS outbreak is that knowledge and attitudes are associated with levels of panic and emotion which could further complicate measures to contain the spread of the disease. The survey also gives a general picture of Malaysians COVID-19 prevention practices before the MCO (Manage Care Organization) and this can better prepare the government to address future health crises involving infectious diseases. The results of this study are important to inform future efforts focusing on societal readiness to comply with pandemic control measures.[3]

Knowledge and attitude change ever since COVID-19 started all over the world and media started information flooding everywhere. Some were just false and fake, some others might be authentic, and no one knew the fact. Still general public are confused and scared about truths and myths.[4]

Although COVID-19 (coronavirus disease 2019) is a new pandemic identified in 2019, there have been other worldwide pandemics. Each one of these pandemics has left its mark on civilization. The history of these pandemics is important because history repeats itself, and with each pandemic, we have gained knowledge to improve health care. Therefore, it is imperative that research be implemented to determine evidence-based interventions not only for patients but also to assist nurses caring for patients with COVID-19. A pandemic is defined as a new virus with widespread emergence, people do not have immunity, and there is simultaneous transmission worldwide. Seasonal epidemics are not considered pandemics as the number of cases of COVID-19 has grown, and an alarming number of patients have been hospitalized, nurses on the frontlines of health care working in hospitals have been faced with scenarios imaginable only a few short months before.[5]

India has a combination of government and private

healthcare facilities for providing medical care. Due to fear and to avoid the risk of spreading the novel coronavirus SARS-CoV-2 infection, many hospitals have closed their doors to patients who have been trying to avail these facilities. This has led to restlessness, irritation and sometimes despair when trying to find medical help. As a consequence of this, people have shown their frustration by verbally abusing and threatening to physically assault doctors and other healthcare workers.[6]

Methodology:

1.1Design: This study is a non-experimental comparative research design was used.

1.2Participants: Participants were general public residing in selected urban and rural area. Total 200 samples responded for the present study. They were selected by using non probability convenient sampling technique based on inclusion and exclusion criteria of selection. The sample size was calculated by using open-epi, open-source calculator -SSCC.

1.3Data Collection: The purpose of the study was explained to the participants and written informed consent was taken before the enrollment. Structured questionnaire and rating scale were used to gather the data. Section A- Consist of socio- demographic characteristics, Section B- structured questionnaire on knowledge regarding COVID-19, Section C- consist of 5 point rating scale were used to assess the attitude regarding COVID-19.

Study participants were gathered in common place, wherein after collecting the baseline data structured questionnaire and rating scale were used to assess the knowledge and attitude regarding COVID-19 were given. All the gathered data was recorded, further collected data was tabulated and analyzed by applying appropriate statistical test like descriptive and inferential statistics

1.4 Knowledge scoring criteria:

Sr. No.	Criterion	Range ofscore
1	Poor Knowledge	30 -50
2	Average Knowledge	51 - 70
3	Good Knowledge	71 - 90

1.5 Attitude Scoring criteria:

Sr. No.	Criterion	Range of score
1	Unfavorable	21 - 50
2	Neutral	51 - 75
3	Favorable	76 - 105

Results:

Description of Demographic variable of urban people:

Total 100 general public of selected urban area had participated in this study and baseline data reveal that a significant proportion (39%) participants were age group between 31-40 yrs., more than 56% were male and remaining 44% were female. Wherein majority of 45% of participants education was secondary, majority of 33% were self-employed, 35% of them had monthly income 10000-20000rs. Among 72% participants were belongs to joint family. Data shows that 75% of them had family history of COVID-19. 50% of participants were married

Description of Demographic variable of rural people:

Total 100 general public of selected rural area had participated in this study and baseline data reveal that a significant proportion (42%) participants were age group between 40-45 yrs., more than 52% were male and remaining 48% were female. Wherein majority of 40 % of participants education were graduate, majority of 40% were self-employed, 55% of them had monthly income 20000-30000rs. Among 60% participants were belongs to nuclear family. Data shows that 60% of them had family history of COVID-19. 58% of participants were married.

Table 1: Assessment of knowledge regarding Covid-19 among rural people (N=100)

Sr. No.	Criterion	Range ofscore	Rural people knowledge Frequency	Percentage
1	Poor Knowledge	30 -50	37	37
2	Average Knowledge	51 - 70	63	63
3	Good Knowledge	71 - 90	0	0

Table No.1 depicts the knowledge level of rural people. The result shows that, 63% of the people had average knowledge, 37% had poor knowledge and while none of them had good knowledge.

Table 2: Assessment of Knowledge regarding Covid-19 among Urban people (N=100)

Sr. No.	Criterion	Range Of score	Urban people knowledge Frequency	Percentage
1	Poor Knowledge	30 -50	11	11
2	Average Knowledge	51 - 70	89	89
3	Good Knowledge	71 - 90	0	0

Table No. 2 depicts that level of knowledge of urban public. The result shows that, majority 89% of the people had average knowledge, 11% had poor knowledge and while none of them had good knowledge.

Table 3: Assessment of attitude regarding Covid-19 among rural people (N=100)

Sr. No.	Criterion	Range of score	Rural people attitude Frequency	Percentage
1	Unfavorable	21 - 50	0	0
2	Neutral	51 - 75	89	89
3	Favorable	76 - 105	11	11

Table No.3 depicts the attitude level of rural people. The result shows 89% of the people had neutral attitude, 11% had favorable, while none had unfavorable attitude.

Table 4: Assessment of attitude regarding Covid-19 among urban people (N=100)

Sr. No.	Criterion	Range ofscore	Urban people attitude Frequency	Percentage
1	Unfavorable	21 - 50	0	0
2	Neutral	51 - 75	59	59
3	Favorable	76 - 105	41	41

Table No.4 depicts the attitude level of rural people. The result shows 59% of the people had neutral attitude, 41% had favorable, while none had unfavorable attitude.

Table 5: Comparison of Rural and urban people of knowledge scores (N=100)

Sr. No.	Group	Mean	Standard deviation	Mean %	Unpaired t test
1	Rural	52.77	5.81	58.63	8.74
2	Urban	59.69	5.33	66.32	

Table no. 5 Shows difference between rural and urban people on knowledge mean score which is found 52.77 and 59.69 respectively. The unpaired t test value found to be 8.74 which is significant at the level of 0.05.

Table 6: Comparison of Rural and urban people of attitude scores (N=100)

Sr. No.	Group	Mean	Standard deviation	Mean %	unpaired t test
1	Rural	63.32	7.401	60.30	12.56
2	Urban	74.23	4.542	70.70	

Table no. 6 Shows difference between rural and urban people on attitude mean score which is found 63.32 and 74.23 respectively. The unpaired t test value found to be 12.56 which is significant at the level of 0.05.

Association between levels of Knowledge with their selected socio demographic variables of urban people:

Chi square values were calculated to find out the association between knowledge score with demographic variables, the findings revealed that there was no significant association between Knowledge score and socio demographic variables like age, gender, education, occupation, duration of illness, family income and history of COVID-19 in the family. Hence the stated null hypothesis (HO2) was Accepted as there was significant association between knowledge score with demographic variables.

Association between levels of Knowledge with their selected socio demographic variables of rural people:

Chi square values were calculated to find out the association between knowledge score with demographic variables, the findings revealed that there was no significant association between Knowledge score and socio demographic variables like age, gender, education, occupation, duration of illness, family income and history of COVID-19 in the family. Hence the stated null hypothesis (HO2) was accepted as there was no significant association between knowledge score with demographic variables.

Discussion:

In the present study of 100 subjects in urban people (39%) participants were age group between 31-40 yrs., more than 56% were male and remaining 44% were female. Wherein majority of 45% of participants education was secondary, majority of 33% were self-employed, 35% of them had monthly income 10000-20000rs. Among 72% participants were belongs to joint family. Data shows that 75% of them had family history of COVID-19. 50% of participants were married. In rural area out of 100 subjects 42%) participants were age group between 40-45 yrs., more than 52% were male and remaining 48% were female. Wherein majority of 40 % of participants education were graduate, majority of 40% were self-employed, 55% of them had monthly income 20000-30000rs. Among 60% participants were belongs to nuclear family. Data shows that 60% of them had family history of COVID-19. 58% of participants were married.

Assessment of level of knowledge of rural public. The result shows that, majority 63% of the people were had average knowledge and 37% had poor knowledge and none of having good knowledge. In urban area, majority 63% of the people were had average knowledge and 37% had poor knowledge and none of were having good knowledge.

Difference between rural and urban people on knowledge mean score which is found 52.77 and 59.69 respectively. Difference between rural and urban people on attitude mean score which is found 63.32 and 74.23 respectively. The unpaired t test value found to be 12.56 which is significant at the level of 0.05. The unpaired t test value found to be 8.74 which is significant at the level of 0.05.

There was no significant association between knowledge score and socio demographic variables like age, gender, education, occupation, duration of illness, family income and history of COVID-19 in the family.

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