

XXIX SNA Biennial Conference (Virtual)

Scientific Paper Presentation

Prevalence of Covid-Appropriate Behaviour (CAB) and its Related Factors among General Public Residing in Central Kerala

Presented by: Athira Rajan, Alphonsa Sabu, Aleena Baby, 4th year BSc (N) students at Malankara Orthodox Syrian Church (MOSC), College of Nursing, Kolencherry, Ernakulam (Kerala).

Background of the Problem

The world is being challenged by Covid-19 outbreak that results in a universal concern and economic hardship. It is a leading public health emergency across the globe in general and in developing countries in particular. Strengthening good preventive behaviour is the best way to tackle this pandemic (Mehanna et al, 2020).

In India, to a great extent, these Covid-appropriate behavioural changes are attributed to the combination of health promotional activities, motivational efforts, and enforcement/regulations by the Government of India (Shahnazi et al, 2020).

Need and Significance of the Study

Although there are various enactments and regulations in place to implement these measures, largely these are meant to be adopted voluntarily. Individual differences have been reported regarding behavioural adherence to preventive measures worldwide. Understanding such differences at the interpersonal level is essential to improve adherence to CAB (Tong et al, 2020). Studies in other countries had shown poor adherence to precautionary measures (Bante et al, 2021). Though there are varying reports of adherence to these measures from North India (Banerjee & Banerjee, 2021), little is known about South Indian states.

It is timely and imperative to assess people's level of adherence to standard precautions and measures in order to plan and implement effective risk communication programmes at state and local level. Therefore, a study was conducted to assess prevalence of Covid-appropriate behaviour and its related factors among general public in Kerala, a South Indian state.

Objectives

The study was set out with following objectives:

1. To determine the prevalence of Covid-appropriate behaviour among general public.

2. To determine the demographic factors associated with Covid-appropriate behaviour among general public.

Hypotheses

HA1: There is significant association between Covid-appropriate behaviour and selected demographic variables.

Operational Definitions

Prevalence: It refers to the measure of Covid-appropriate behaviour in general public at the time of data collection as measured by Covid-Appropriate Behaviour Scale.

Covid-appropriate behaviour: It refers to the way in which an individual acts by adopting a number of strategies including frequent hand hygiene, maintaining physical distancing, use of face mask, cough etiquettes, avoiding greetings through physical contacts, avoiding spitting and urination at public places, refrain from gatherings and avoiding outside food to prevent Covid-19 pandemic infection as measured by structured Covid-Appropriate Behaviour Scale.

General public: General public refers to adults above the age of 18 years residing in Central Kerala.

Methodology

Research approach: The study used quantitative approach.

Research Design: Web-based survey.

Population: Adults above the age of 18 years residing in Central Kerala were included.

Sampling Technique: Convenience sampling was adopted.

Sample & sample size: 387 adults who participated in web-based survey constituted the sample.

Sampling criteria

- Individuals above the age of 18 years.
- Individuals who are able to read, write and

Table 1: Tools and techniques

Name	Validity	Reliability	Scoring
Tool 1 - Socio Demographic Performa (9 items)	CVI- 1	-	-
Tool 2 - Covid-Appropriate Behaviour Scale (10 items)	CVI- 0.9	$\alpha=0.9$	Range 0-40 As the score increases CAB increases

Table 2: Prevalence of CAB among study participants (n=387)

Covid-Appropriate Behaviour	f	%
Avoided long journey	343	88.63%
Avoided hand shaking while talking with others	358	92.51%
Ate properly cooked food	367	94.83%
Maintained social distancing	368	95.09%
Used towel or elbow to cover mouth while sneezing or cough	367	94.83%
Cleansed hands before touching eyes and nose	289	74.68%
Brought sanitisers while going outside	358	92.51%
Washed hands frequently	356	91.99%
Worn mask properly while going outside	368	95.09%
Avoiding sharing pen and other articles with others	84	21.7%

Table 3: Median and IQR values (n=387)

Variable	Median and IQR
Covid Appropriate Behaviour	35 and 33, 38

Table 4: Factors related to Covid-Appropriate Behaviour of subjects (n=387)

Factors	Frequency	%	OR	p value
Age in years <35 >35	135 252	34.88 65.12	1.14	0.55
Education Up 12th standard Degree and above	174 213	44.96 55.04	0.74	0.14
Employment status Yes No	233 154	60.21 39.79	1.16	0.47
Economic status APL BPL	310 77	80.10 19.90	1.02	0.95
Place of residence Panchayat Municipality	241 46	88.11 11.89	1.01	0.967

understand Malayalam and familiar with social media use (WhatsApp).

- Individuals who are residing in Central Kerala.
- Posted online survey form in social media along with consent form.
- 387 Individuals participated in the survey
- Data collected using web-based survey
- Structured Socio-Demographic Performa
- Covid Appropriate Behaviour Scale
- Time taken to fill up forms $\approx$ 10 minutes by each subject.

Ethical Considerations

Ethical clearance certificate was obtained from IEC, MOSC Medical College Hospital, Kolenchery. Informed consent was obtained from subjects. Confidentiality and anonymity were maintained.

Results

The results are shown in Tables 2-5.

Table 5 : Factors related to Covid-Appropriate Behaviour of subjects (n=387)

Factors	Frequency	%	OR	p value
Attendance to Covid prevention awareness programme				
No	191	49.35	0.94	<0.001*
Yes	196	50.65		
Perception towards Covid-19 infection				
Severe	145	37.47	0.85	0.45
Not severe	242	62.53		
Vaccination status				
Yes	385	99.48	3.54e-07	0.98
No	02	0.52		
H/o Covid 19 infection				
Yes	95	24.55	1.65	0.013*
No	292	75.45		

- Categorical data were summarised as frequency and percentage.
- Covid Appropriate-Behaviour: Median and IQR (as the data did not follow normality assumption).
- Factors associated with Covid-Appropriate Behaviour: Simple Logistic Regression.

Data were analysed using 'R' Software. p value less than <0.05 was considered statistically significant.

Discussion

- The Median (IQR) score of Covid appropriate behaviours was 35 (33,38) among the participants.
- The most prevalent CAB were proper wearing of mask (95.09%), maintaining social distancing (95.09%), covering nose and mouth while sneezing and coughing (94.83%) and using sanitisers while going out of home (92.5%).
- Only 74.68 percent participants practiced Cleaning hands before touching eyes and nose and surprisingly it was noted that only 21.7 percent of the respondents avoided sharing pen and other articles with others.
- Simple logistic regression analysis showed that respondents who did not have the history of Covid infection were about 1.65 times more likely to exercise good CAB compared to those with positive history of Covid infection (p=0.013).
- Those who had attended Covid prevention awareness sessions adhered to Covid-19 appropriate behaviour 0.9 times more as compared to those who did not (p<0.001).

Conclusion

The overall Covid-appropriate behaviours were high among the participants. Although the main Covid

preventive behaviours - wearing of mask (95.09%), maintaining social distancing covering nose and mouth while sneezing and coughing and using sanitisers while going out of home were high, more than a quarter did not practice cleaning hands before touching eyes and nose. Only few avoided sharing pens and other articles with others putting them at risk of contracting infection. Respondents who without a history of Covid infection and Those who had attended Covid prevention awareness sessions adhered to Covid-appropriate behaviour more as compared to their counterpart

Adoptions of Covid-appropriate behaviour in the study population was found to be high. However, the lacunae exist in certain CAB need to be reinforced through appropriate stakeholder involvement and prompt corrective actions at community level.

There is an urgent need to create an enabling environment to support and sustain the Covid-19 appropriate behaviours (maintenance stage) to reap the maximum benefits out of them. Sustaining these appropriate behaviors is also important considering the possibility of advent of the third wave of Covid-19 in near future. Kerala model risk communication activities can be implemented and strengthened through effective community engagement to slow down and stop the transmission of the disease in other states also.

References

1. Mehanna A, Elhadi YAM, Lucero-Prisno DE. Factors influencing intention to adhere to pre-cautionary behavior in times of COVID-19 pandemic in Sudan: An application of the health belief model. *medRxiv* 2020. 9
2. Shahnazi H, Ahmadi-Livani M, Pahlavanzadeh B, Rajabi A, Hamrah MS, Charkazi A. Assessing preventive health behaviors from COVID-19: A cross sectional study with health belief model in Golestan Province, Northern of Iran. *Infect Dis Poverty* 2020; 9(1): 157. 10
3. Tong KK, Chen JH, Yu EW, Wu AMS. Adherence to COVID-19 precautionary measures: Applying the health belief model and generalised social beliefs to a probability community sample. *Appl Psychol Heal Well Being* 2020; 12(4): 1205-23.11
4. Bante A, Mersha A, Tesfaye A, Tsegaye B, Shibiru S, Ayele G, et al. Adherence with COVID-19 preventive measures and associated factors among residents of Dirashe district, Southern Ethiopia. *Patient Prefer Adherence* 2021; 15: 237-49
5. Banerjee R, Banerjee B. Public perspective and adherence to government directives in the face of COVID-19 situation in India. *MAMC J Med Sci* 2020; 6(2): 90-96