



A Study to Assess Practices and Perception of General Population of North Karnataka towards COVID 19 Prevention

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Citation this Article: Arathy V, Laxmi Tellur, Rashmi Hullalli, Tanuja P. Pattankar, “A Study to Assess Practices and Perception of General Population of North Karnataka towards COVID 19 Prevention”, IJMSIR- April - 2022, Vol – 7, Issue - 2, P. No. 235 – 243.

Type of Publication: Original Research Article

Conflicts of Interest: Nil

Abstract

Introduction: COVID 19 pandemic was a cause of concern worldwide, knowledge and perception about the disease was not good in the earlier days, hence this study was conducted to assess the same among the public.

Objectives: To assess the practices and perception of public in preventing COVID 19 infection and to assess the attitude and practice of public towards COVID- 19 Vaccination.

Methods: it was a cross sectional study conducted during June 2021. The questionnaire in google form were administered online via WhatsApp to the target population and Snowball sampling technique was used to enroll the participants.

Results: 143 participants responded to the study, out of which majority were male (74.1%), belonging to Urban

area (93.7%), with degree graduates (88.8%) and 60% of respondents were employed with a Salaried Job. Knowledge and Attitude was good among the study participants but practices were poor in males compared to females and also vaccination was high in females.

Conclusion: The participants had good knowledge regarding COVID appropriate behaviour but practices of COVID appropriate behaviour was good among females then males.

Key words: COVID 19, vaccination, prevention.

Introduction

COVID 19/Corona virus disease is caused by SARS COV 2 (severe acute respiratory syndrome coronavirus 2)¹. The infectious disease was first identified in Wuhan city, China on December 2019. The first positive case of COVID 19 in India was reported on 30th January 2020 in

the state of Kerala. The World Health Organisation had declared the disease outbreak as a public health emergency of international concern on 30th January 2020². The disease was declared a pandemic in 11th March 2020³. The first wave marked its peak by mid-September with over 90,000 cases reported per-day, dropping to below 20,000 new cases per day in January 2021^{4,5}. The devastating second wave of COVID 19 in India showed a steep climb in first half of May 2021⁶. To reduce the transmission of the virus the Indian Government implemented nation wide lockdowns, closed all nonessential business and services, implemented quarantine for interstate and international travelers, and made strict laws to follow COVID appropriate behaviors by the public. Awareness was created among the general public regarding the preventive measures using social media through posters, guidance documents, news etc⁷.

On 16 January 2021 the vaccination programs were initiated in India with Astra Zeneca vaccine (Covishield) and the indigenous Covaxin⁸. India lags behind in the percentage of population that has been vaccinated when compared to other countries, as it is densely populated.⁹ The trailing vaccination drive and emerging mutant strains of virus causing severe disease emphasis the importance of COVID appropriate behavior in population. This study attempts to access the practices and perception of public in preventing COVID 19 infection.

Objectives

1. To assess the practices and perception of public in preventing COVID 19 infection.
2. To assess the attitude and practice of public towards COVID- 19 Vaccination

Methodology

It was an online cross-sectional study was conducted among general public residing in North Karnataka, both from urban and rural area during June 2021. The questionnaire in google form were administered online via WhatsApp to the target population. Snowball sampling technique was used to find the participants as it was not easy to approach the public due to nationwide lockdown. The participants were provided a participant information sheet and consent form along with the questionnaire. Only those participants who voluntarily consented to be a part of the study were included in the study. The questionnaire helps to assess, the participants socio demographic profile, the participants basic knowledge about COVID 19 epidemiology, Mode of spread and its Clinical features, the attitude of public towards the pandemic by collecting information regarding the COVID appropriate behaviours followed and source of information regarding the situation and their attitude towards COVID 19 vaccination. Data was tabulated in MS office Excel and analyzed using SPSS ver 20. IBM.

Results

Demographics

143 participants responded to the study, out of which majority were male (74.1%). 33.6% and 24.5% of participants were between 31-40 years and 51-60 years respectively. Only one participant less than 20 years responded to the study. Majority of the participants were from Urban area (93.7%). More than half of the respondents were degree graduates (88.8%). Nearly 60% of respondents were employed with a Salaried Job in Pvt Sector and 76.9% belonged to Socio economic Class I according to B G Prasad Classification. (Table-1).

Knowledge about COVID 19

97.2% of the respondents were aware that COVID 19 is a viral disease and 95.8% had knowledge that fever, dry cough, fatigue and myalgia were the major symptoms. Majority (85.3%) were aware that transmission occurs through air droplets and fomites. 97.2 % of the respondents believed COVID appropriate behaviour can prevent the disease. 98.6% of the participants responded, they were aware that COVID 19 vaccines were produced in India also. (Graph 1). 96.5% knew that people above 18 years can take vaccination. More than half of the participants were aware that lactating mothers and people with long term co morbidities can take the vaccine. 94.4% respondents believed severity of COVID 19 disease is less among vaccinated individuals. Only very few (7%) assumed that the vaccines can cause severe side effects.

Attitude Towards COVID 19

87.4% think that vaccination can prevent significant morbidity and mortality. 89.5% believed lock down can improve the overall well-being of the society in terms of controlling COVID-19 pandemic situation.

Practice during COVID 19

Nearly 11% of participants had visited a crowded place and 7% of them had gone out of house without wearing a mask during the pandemic. 81.8% respondents had taken COVID Vaccination, out of which 56.6% were fully vaccinated and 25.1% had completed first dose.

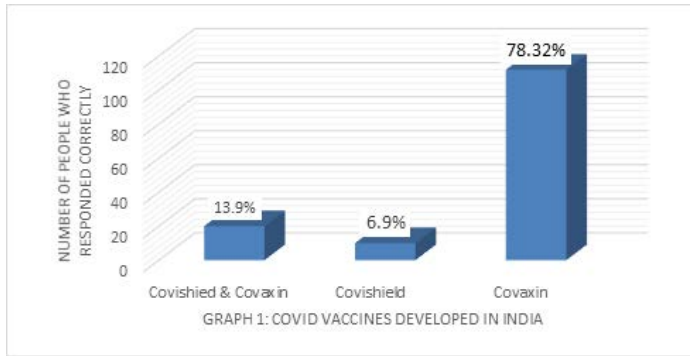
Out of 26 non-vaccinated participants, the main reasons for not getting vaccinated were lack of stock, ongoing COVID infection, pregnancy, afraid of side effects etc.,(Graph 2)

On statistical analysis, our study showed, the gender does not have a significant relation with the knowledge, attitude, and practice towards prevention of COVID 19 (Table- II), but females had better knowledge towards the disease, and practised Covid appropriate behaviour better than Males and also Females had better second dose vaccination status than males. Association between Age and Vaccination status was found to be statistically significant. (Fishers Exact test). (Table III).

Table 1: Socio Demographic Profile		
Variables	No. of Participants	Percentage
Age(Years)		
<20	1	0.7
21 – 30	14	9.8
31 – 40	48	33.6
41 – 50	28	19.6
51 – 60	35	24.5
61 – 70	17	11.9
Gender		
Female	37	25.9

Male	106	74.1
Place		
Urban	134	93.7
Rural	9	6.29
Education		
Degree	127	88.8
Illiterate	1	0.7
Post graduate	8	5.6
PUC	7	4.9
Occupation		
Agriculture	2	1.4
Business	23	16.1
Coolie or Daily Wages	2	1.4
Employed with Salaried Job in Govt Sector	11	7.7
Employed with Salaried Job in Pvt Sector	80	55.9
Home Maker	10	7.0
Retired	7	4.9
Unemployed	8	5.6
SES		
Class I	110	76.9
Class II	24	16.78
Class III	8	5.59
Class IV	-	-
Class V	1	0.69

Graph 1:



Graph 2:

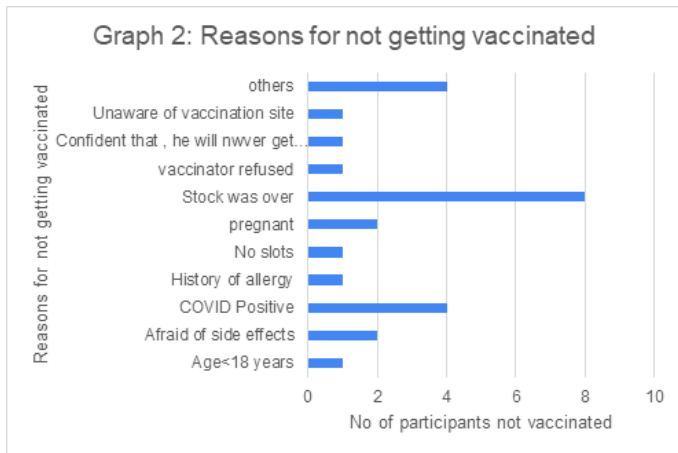


Table II.

Positive response on Knowledge questions	Gender		Chi square test	P value
	Male n (%)	Female n (%)		
COVID 19 is a viral disease	102 (96.2%)	37 (100%)	1.436	0.488
The main clinical symptoms of COVID-19 are fever, fatigue, dry cough, and muscle pain.	101 (95.2%)	36 (97.29%)	1.146	0.564
Symptoms of common cold are less common in persons infected with the COVID-19 virus.	81 (76.4%)	28 (75.6%)	2.241	0.326
Not all persons with COVID-19 will develop severe cases but elderly, people with chronic illnesses and obesity are more likely to be severe cases.	92 (86.7%)	30 (81.1%)	0.714	0.700
COVID 19 spreads through air droplets and through fomites.	89 (83.9%)	33 (89.1%)	0.839	0.840
COVID 19 spread can be stopped by following safety rules like wearing mask, washing hands regularly and maintaining 6 feet distance.	102 (96.2%)	37 (100%)	1.436	0.488
Vaccination against COVID 19 has been developed by India	105 (99%)	36 (97.2%)	3.223	0.200

People above 18years can take vaccination.	101 (95.2%)	37 (100%)	1.809	0.405
Lactating mothers can take vaccination.	75 (70.7%)	25 (67.5%)	0.861	0.650
People with long term co morbidities (DM, HTN, heart disease) can also take the vaccination	90 (84.9%)	33 (89.1%)	1.092	0.579
Severity of COVID 19 disease is less among vaccinated individuals	99 (93.3%)	36 (97.2%)	1.877	0.391
Side effects of vaccination is minimal	98 (92.4%)	35 (94.5%)	0.280	0.869
Positive response on Attitude questions	Gender		Fisher's Exact test*	P value
	Male n (%)	Female n (%)		
COVID 19 is a threat for mankind	91 (85.8%)	31 (83.8%)	0.828	0.659
Vaccination can prevent significant morbidity and mortality.	93 (87.7%)	32 (86.5%)	1.108	0.536
Lock down can improve the overall well-being of the society in terms of controlling COVID-19 pandemic situation	94 (88.7%)	34 (91.9%)	0.602	0.884

*As the cell count frequency was <5, Fisher's exact value is taken.

Positive response on Practice questions	Gender		Fisher's Exact test*	P value
	Male n (%)	Female n (%)		
Recent visit to any crowded place	14 (13.2%)	1 (2.7%)	3.625	0.174
Have you worn a mask when leaving home?	98 (92.5%)	35 (94.6%)	.413	1
Are you following the strategies recommended by authorities (eg Ministry of Health) to prevent yourself from the infection and spread of COVID-19?	104(98.1%)	37 (100%)		1
Have you taken the COVID 19 Vaccination?	88 (83%)	29 (78.4%)		0.621
How many doses did you take? First Second	31 (29.2%)	5 (13.5%)	3.739	0.162
	57 (53.8%)	24 (64.9%)		

*As the cell count frequency was <5, Fisher's exact value is taken.

Socio Demographic Details		Vaccination Status		Fisher's Exact Test*	P value
		Vaccinated n (%)	Not Vaccinated n (%)		
	<20	1 (100%)	0	27.160	0.000
	20-30	7 (50%)	7 (50%)		
	30-40	32 (66.7%)	16 (33.3%)		
	40-50	27 (96.4%)	1 (3.6%)		

Age (Years)	50-60	33 (94.3%)	2 (5.7%)		
	60-70	17 (100%)	0		
Education	Illiterate	1 (100%)	0	1.905	0.648
	PUC	5 (71.4%)	2 (28.6%)		
	Degree	105 (82.7%)	22 (17.3%)		
	Postgraduate	6 (75%)	2 (25%)		
Occupation	Agriculture	2 (100%)	0	2.372	0.951
	Business	19 (82.6%)	4 (17.4%)		
	Coolie/ daily wage worker	2 (100%)	0		
	Employed with salaried job in govt sector	9 (81.8%)	2 (18.2%)		
	Employed with salaried job in private sector	64 (80%)	16 (20%)		
	Homemaker	8 (80%)	2 (20%)		
	Retired	7 (100%)	0		
	Unemployed	6 (75%)	2 (25%)		

*As the cell count frequency was <5, Fisher’s exact value is taken.

Table III

Socio Demographic Details		Vaccination Status		Chi Square Test	P value
		Vaccinated n (%)	Not Vaccinated n (%)		
Gender	Male	88 (83%)	18 (17%)	0.529	0.343
	Female	29 (78.4%)	8 (21.6%)		

Discussion

COVID-19 has caused devastating effects within the short time since it was first detected in December 2019.

Till date, health authorities had made appropriate strategies to prepare and manage the public. It is therefore extremely important to study the knowledge, attitudes and practice of the population towards COVID appropriate behaviour to guide these efforts. The present study was steered as an effort to understand the

knowledge, attitude, and practice of the general public towards prevention of COVID-19 disease during its second wave.

In this study majority of the respondents had good knowledge about COVID 19 disease, its symptoms, mode of transmission and benefits of following COVID appropriate behaviour which was similar to a study by Shivcharan Singh Gandhar et al where the knowledge regarding COVID 19 disease, its symptoms and mode of

transmission was >80% among the study population¹⁰. In our study 97% participants responded that individuals >18 years can receive COVID Vaccination, where as in another study by Mitali Sengupta et al only 60% agreed that only >18 years can take vaccination¹¹. More than 85% of the participants were well educated, which might be the reason for increased knowledge regarding the disease and its preventive measures.

About 26% of the participants in a study done in Oman by Sabria Al-Marshoudi et al believed that the side effects of COVID vaccines were minimal and 52% think that the vaccine protect them from getting COVID 19 disease. Whereas in our study 93% of the participants believed that the side effects of the vaccine are minimal and about 95% thinks that severity of the disease is less in vaccinated individuals¹². Another study done by Balvir Singh Tomar et al states that 96% of the general public (94% females & 97% males) in India agrees with the idea of lockdown to prevent the spread of COVID-19. Our study, 90% of the general public which includes 88% males and 90% females had a positive attitude towards the imposed lock down restriction for the control of COVID 19 Pandemic¹³. Overall attitude towards the disease and its preventive measures were good among our participants, both males and females.

In the current study, 16% of the participant responded that they had visited a crowded place recently, among them 13% were males and 3% were females. Also in our study 93% of the individuals used to wear mask while going out in public (12% male & 94% females). A similar study done in North India by Sudhanshu Bansal et al reported that 63% of the participants (57% males & 70% females) wore a mask when they step out of home and also 24% participants avoided a social event during the pandemic¹⁴.

Even though all the participants had good knowledge and attitude towards the disease and its prevention, females were better when compared to males in following COVID appropriate behaviour. This may be because in our study more than 50% females were employed and they had to manage their family along with it, which might be the reason they are keener in practicing COVID preventive measures.

Limitation

As it is a cross sectional study, we couldn't follow up the patient to assess their behavioral practices.

Conclusion

The participants had good knowledge regarding COVID appropriate behaviour but practices of COVID appropriate behaviour was good among females then males. More efforts are required from the government to curtail the infection by immunizing all the citizens of the country.

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