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A study to assess the prevalence of covid-19 preventive behaviourr and the factors affecting the compliance of behaviour among general public residing in a selected urban community of western Maharashtra

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Abstract:

Pandemics always come up with various life-threatening issues. COVID-19 outbreak has raised serious problemsinvolving public, administrative and healthcare sector issues. COVID-19 presents the front-line of a new uncertain battle for the human race. There is an increased risk of rapid transmission of COVID -19 in the public due to lack of knowledge, poor hygiene practices, inadequate awareness, etc. A descriptive study was conducted among general public residing in selected urban community of western Maharashtra using self-reported practice questionnaire and observational check list.

Results: A total of 200 samples were taken. Data reveals that maximum subjects compliance with average practice of COVID precautionary measures in day to day life. 84.5% of the observed public greets without physical contact. 60% of the subjects wears face mask properly covering the face. 48.5% follows cough etiquettes. 88% of the subjects are vaccinated. 38% strictly follows COVID 19 precautionary measures, 61.5% follows practices average practices and only 0.5% was observed poor practices. Correlation between self-reported practices and observed practices, value calculated using Pearson correlation

coefficient is 0.1315. The p value calculated is .063439. The result is not significant at p < .05.The value of R is 0.1315.

Keywords: Nursing, Epidemic/Pandemic,Covid-19, Knowledge, Hygiene,General awareness,Practice Personal qualities.

1. Introduction

Pandemics always come up with various life-threatening issues. COVID-19 outbreak has raised serious problemsinvolving public, administrative and healthcare sector issues. COVID-19 presents the front-line of a new uncertain battle for the human race. The two main routes of transmission are direct interaction with patients and contact with respiratory droplets in the space closely surrounding an infected person. Thus there is an increased risk of rapid transmission of COVID -19 in the public due to lack of knowledge, poor hygiene practices, inadequate awareness, etc.

Govt of India has taken unprecedented and stringent preventive and precautionary measures against COVID-19 to control its spread, safeguard citizens and ensure their well-being. Various measures to prevent the spread of COVID-19 have been advocated.Public adherence to preventive measures is influenced by their knowledge and attitude toward COVID-19.Role of a nurse in an epidemic is very important and it includes providing physical care and emotional care; teaching and communication; communication through documentation; advocating for patients and family; mentoring; communicating disease prevention and health promotion. They are at risk of infection in the epidemic chain and are important resource in the control of infection and therefore it is important to identify the risk factors and measure to reduce them.

2 Need of the Study

COVID-19 has become a part of our life now. People display wide range of behaviour and approach to prevent COVID-19. Despite the effort taken by the government and Healthcare professionals, it has been observed that people have let down their guard and have started being casual about them. Public adherence to preventive measures established by the government is of prime importance to prevent the spread of the disease. Adherence is likely to be influenced by the public's knowledge and attitudes toward COVID-19. Evidence shows that public knowledge is important in tackling pandemics. By assessing public awareness and

knowledge about the coronavirus, deeper insights into existing public perception and practices can be gained, thereby helping to identify attributes that influence the public in adopting healthy practices and responsive behaviour. Assessing public knowledge is also important in identifying gaps and strengthening on-going prevention efforts. Therefore, there is a need to conduct a study to assess the prevalence of COVID-19 appropriate behaviour by general public.

3Problem statements

A cross sectional study to assess the prevalence of COVID 19 preventive behaviour and the factors affecting the compliance of behaviour among general public residing in a selectedurban community of Western Maharashtra.

4 Aims

To assess the prevalence of COVID 19 appropriate behaviour among general public residing in a selected urban community of Western Maharashtra.

5 Objectives

- To assess the COVID 19 appropriate behaviour followed by general public using self-reported practice questionnaire & observational check list.
- To correlate the self-reported practice score with observational score

6 Hypotheses

H0 : There is no correlation between the self-reported practice score with observational score.

7 Research Methodologies

Research approach : Descriptive study

Research design : Cross sectional design

Target Population : Adult population residing in Western Maharashtra

Accessible Population: Adult population residing in selected urban community of Western Maharashtra and available during data collection period

Sampling technique : Consecutive sampling

Sample size : 200

8 Analysis & Results

Table 1: Socio-demographic & base line datan= 200

Category	Sub category	Frequency	Percentage
Age	20-30	76	38
	30-40	48	24
	40-50	17	8.5
	50-60	40	200
	60-70	19	9.5
Gender	Male	119	59.5
	Female	81	40.5
Religion	Hindu	84	42
	Christian	62	31
	Muslim	54	27
Marital status	Married	160	80
	Unmarried	39	19.5
	Divorce	1	0.5
Educational Qlfn	Illiterate	0	0
	Upto X	96	48
	Upto XII	56	28
	Graduation	48	24
Occupation	Govt	13	6.5
	Private	51	25.5
	Business	34	17
	House wife	83	41.5
	Daily wages	19	9.5

Table2: Awareness of about COVID precautionary measuresn = 200

Precautionary measures	Frequency	Percentage
Importance of hand washing	200	100
Social distancing	200	100
Preferred greeting by Namaste/Hand wave	190	95
Use of mask	200	100
Cough etiquette	150	75
Restriction of visit to public places	200	100
Avoid spitting in open spaces	180	90
Care of family members with COVID infection	90	45
Surface disinfection	82	411

This data shows that general public is well aware about the COVID precautionary measures except the cough etiquette, care of family members with COVID infection and frequency of disinfection of surface with frequent contact.

Table 3: Self-reported practice of COVID precautionary measuresn= 200

Practice score	Frequency	Percentage
0-10 (Poor)	14	7
10-20 (Average)	160	80
20-30 (Good)	26	13

Data reveals that maximum subject's compliance with average practice of COVID precautionary measures in day to day life.

Table 4: COVID 19 precautionary measures followed by general public: Observational check listn=200

SNO	Practices	Frequency	Percentage
1	Greets without physical contact	169	84.5

2	Maintains social distance of 6 ft	32	16
3	Wears face mask properly covering nose	120	60
4	Avoids frequently touching mask	90	45
5	Avoids frequently touches face, eyes, nose	79	39.5
6	Use of hand sanitizers	92	46
7	Follows cough etiquettes	97	48.5
8	Avoids touching the frequently used surfaces	54	27
9	Vaccination status with single/ two doses	176	88
10	Enquires of about latest guidelines	78	39

Data shows that 84.5% of the observed public greets without physical contact. 60% of the subjects wears face mask properly covering the face. 48.5% follows cough etiquettes. 88% of the subjects are vaccinated.

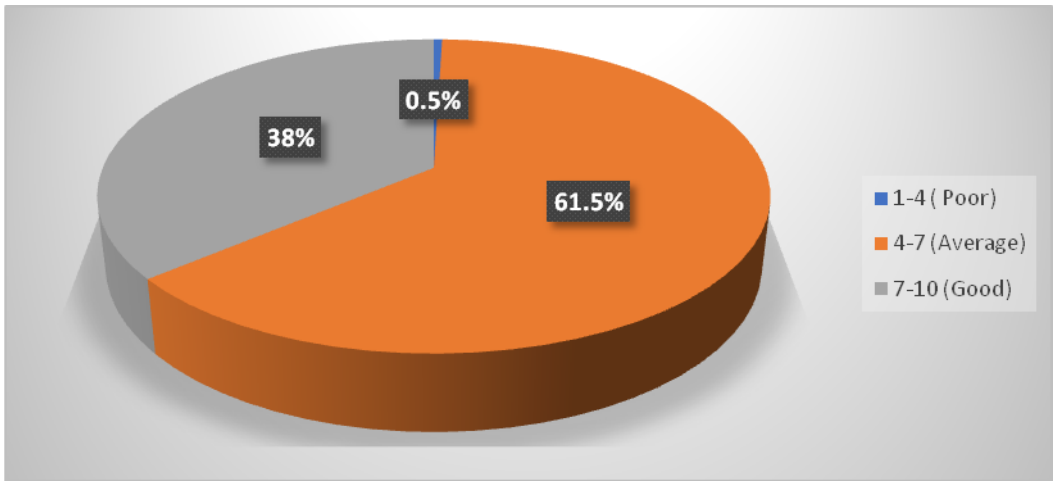

Fig 1: COVID 19 precautionary measures observed among the general public

38% strictly follows COVID 19 precautionary measures, 61.5% follows average practices and only 0.5% was observed to have poor practices

Fig 2: Correlation between self-reported practice score and observational score

rvalue calculated using Pearson correlation coefficient is 0.1315. The value of R is 0.1315.Aalthough technically a positive correlation, the relationship between the variables is weak. The p value calculated is .063439. The result is *not* significant at $p < .05$. Hence there is no sufficient evidence to reject null hypothesis.

9. Recommendations

- Spreading more information about cough etiquette
- Emphasis on Education on care of patients at Home
- Continuing the efforts of ensuring 100% vaccination

Patient's health and reduction in nurses' stress. While collecting data and communicating to students and patients, student nurses must be trained to practice collecting relevant information and should know where to set limits. Students as well as patients are adults. Hence avoid being judgmental and indulging and suggesting and in personal affairs is advised only when need arises. Retaining confidentiality of communication is equally important.

10. Conclusion

Be it in daily routine or disasters, nurses are on the frontline and are responsible for providing holistic care for all types of patients. Considering the fact that nurses constitute the majority

of healthcare providers, they have a critical function in healthcare systems. It's necessary for the nurses to know the behaviour of the general public regarding COVID-19. It helps a nurse to take measures to fill the gaps identified both in the knowledge and strengthen the existing practices so as to control the transmission. Nurses working in hospital setting, as well as in community setting plays a vital role in framing the community to practice COVID appropriatebehaviour, so as to prevent this deadly transmission. Adherence to novel Coronavirus disease 2019 (COVID-19) appropriate behaviour plays a crucial element in the prevention of the infections of COVID-19 in the society.

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