

Community Medicine

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Distancing, Face Masks, Vaccine, WHO

A SITUATIONAL ANALYSIS OF SOCIAL DISTANCING AND USE OF FACE MASKS, AMONG THE PEOPLE IN THE SRINAGAR (RED ZONE DISTRICT OF KASHMIR DIVISION, UT OF J&K).



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**ABSTRACT:**

INTRODUCTION: With symptomatic treatment available and vaccine to be yet available to general population at present, prevention is the only resource in the hands of the global governments for handling the COVID 19 pandemic. Social Distancing, and use of face masks in public places, are globally recognised as two vital components of the preventive strategy for control of COVID 19 pandemic and slowing down the transmission of SARS Cov-2.

METHODOLOGY: It was a cross sectional study, conducted within Srinagar district of Kashmir Division of UT J&K during the 2nd lockdown announced in April which was declared with some relaxations for essential services in one hundred randomly selected locations within the city especially around the food outlets, bank, grocery stores, mohalla centres within the red zones which had been allowed to operate during the lock down.

RESULTS: Of the total 895 persons observed mask use was seen in 67.3%. Majority were making use of woven fabric masks (33.6%) followed by 23.2% (all women) using headcover as mask & 19.5% using surgical masks. 11.2% had cloth masks. Reasons for not wearing the masks were that people didn't feel the necessity of wearing masks in 68.4% whereas 20.5% reported discomfort on wearing masks. Social distancing was least observed by majority 65% (N=582) where as 28.8% (N=258) & 6.1% (N=55) were maintaining atleast 1 metre or >2 metre distance respectively.

CONCLUSION: Robust IEC with reinforcement about the preventive measures & implementation of same by gaining confidence of community leaders with their active involvement can avert large morbidity & mortality from COVID-19 till an effective vaccine becomes available & accessible to masses at large.

SUMMARY: The study was taken up to attain idea about the practices of people towards preventive measures advocated for prevention of SARS CoV-2 infection during the time of lockdown to prevent community spread.

INTRODUCTION:

With symptomatic treatment available and vaccine to be yet available to general population at present, prevention is the only resource in the hands of the global governments for handling the COVID 19 pandemic which has been having disastrous impact on health care systems and economies throughout the world. Social Distancing, and use of face masks in public places, are globally recognised as two vital components of the preventive strategy for control of COVID 19 pandemic and slowing down the transmission of SARS Cov-2. Face masks have now been proven by way of an evidence review & analysis. (1,2)

Masks are especially recommended for the asymptomatic cases that are transmitting the disease to people. CDC has recommended the use of cloth masks for prevention of transmission of infection. (3)

Social distancing is another very effective way of reducing the transmission of infection. This has been shown in review & met analysis where risk of infection was seen to be reduced 10.2% as the distance lengthened from 1m to more. (4)

India's first case of COVID 19 was declared on 30th January 2020. On 22 March, India observed a 14-hour voluntary public curfew at the instance of the prime minister. It was followed by mandatory lockdowns in COVID-19 hotspots and all major cities. Further, on 24 March, the Prime Minister ordered a nationwide lockdown for 21 days, affecting the entire 1.3 billion-person population of India. UT of Jammu & Kashmir with its first case getting declared on 16th March 2020 & first COVID19 death on 25-03-2020 was no exception to the lockdown. Thereafter the cascade of transmission led to declaration of red zones.

With many districts of Union Territory of J&K being declared as red zones, the importance of these two vital steps of wearing face masks & physical distancing cannot be overemphasized. With a huge amount of awareness generation and public education going on through a variety of media, it was expected that the general public will adhere to both of these guidelines. The current study was an attempt to quantify these behaviours.

METHODOLOGY:

It was a cross sectional study, conducted within Srinagar district of Kashmir Division of UT J&K during the 2nd lockdown announced in April which was declared with some relaxations for essential services.

Attempt was made to assess at least one hundred randomly selected locations within the city especially around the food outlets, bank, grocery stores, mohalla centres within the red zones which had been allowed to operate during the lock down etc.

Variables studied were categorical and dichotomous. Analysis was done in terms of proportion and percentages.

RESULTS:**Table 1: Use of masks**

S. NO		N=895	%
1	Wearing masks	603	67.3
2	Not wearing masks	292	32.6

Of the total 895 persons observed mask use was seen in 67.3%

Table II: Type of masks

S.No		N=603	%
1	Cloth/linen	68	11.2
2	Head cover as mask	140	23.2
3	Surgical face mask	118	19.5
4	N95 mask	34	5.6
5	Woven fabric masks	203	33.6
6	Handkerchief	40	6.6
7	Others	0	0%

Of the 603 people using masks majority were making use of woven fabric masks (33.6%) followed by 23.2% (all women) using headcover as mask & 19.5% using surgical masks. 11.2% had cloth masks.

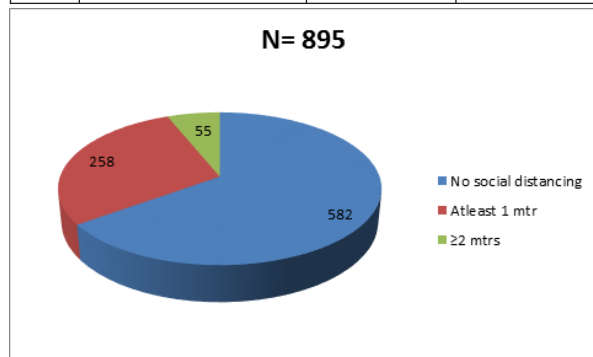
Table III: Reasons for not wearing masks

S.No		N=292	%
1	Discomfort	60	20.5
2	Not felt necessary	200	68.4
3	Not available	24	8.2
4	Not aware if needed	8	2.7
5	Others	0	0

People without masks (292) when asked for reasons of not wearing the masks, 68.4% people didn't feel the necessity of wearing masks whereas 20.5% reported discomfort on wearing masks.

Table IV: Physical Distancing Practise by individuals

S.No		N=895	%
1.	No social distancing	582	65.0
2	Atleast 1 mtr	258	28.8
3	≥2 mtrs	55	6.1



Social distancing was least observed by majority 65% (N=582) where as 28.8% (N=258) & 6.1% (N=55) were maintaining atleast 1 metre or >2 metre distance respectively.

DISCUSSION:

With growing cases of COVID19 in India, when lockdown 2 was imposed much stress was nationwide being given to use of face masks & physical distancing while availing basic services. Despite this our study reveals only 67% use of face masks. This finding especially at the point of time when the epidemiological curve for COVID 19 was on rise, was a significant observation since more than quarter of the sampled population was without effective protection of masks. The effectiveness of masks in prevention of emission of viable viral particles has been demonstrated in recent studies. (5) Coronaviruses are known for their spread through droplets & contacts.(6) Since there are phylogenetic & immunological similarities between SARS 2003, MERS-CoV and SARS Cov-2 infection control measures have been extrapolated from the experience with SARS in 2003. Anecdotal evidences by Seto et al showed that masks significantly reduced the risk of SARS infection among healthcare workers.(7)

The type of mask use was varied in our study, with 19.5% wearing surgical masks, 5.6% were wearing N95 masks whereas 11.2% were

wearing cloth/linen masks. 63.4% were utilizing either head cover or handkerchief or masks made of woven material.

Masks Reduce Chance Of Infection Or Transmission BY 80%.(8) Guidelines that support use of masks recommend surgical masks as means of prevention of transmission in suspected or confirmed COVID cases and use of N95 in aerosol generating procedures only.(9). In the past also strict adherence to proper application of surgical masks being protective against MERS has been deliberated by Jasmine Shimin Chung et al (10)

Abaluck et a also found that “the average daily growth rate of confirmed positives is 18% in countries with no re-existing mask norms and 10% in countries with such norms.” And “that the growth rate of deaths is 21% in countries with no mask norms and 11% in countries with such norms.”(11)

There is laboratory-based evidence suggesting household masks have some filtration capacity in the relevant droplet size range, in addition to some efficacy in blocking droplets and particles from the wearer (12, 13). Thus, these masks help people keep their droplets to themselves.

Cloth face coverings that include even homemade masks made of the correct material such as high-grade cotton, multiple layers and particularly hybrid constructions, are effective in reducing the spread of COVID-19 – for the wearer and those around them – according to a new study from Oxford's Leverhulme Centre for Demographic Science. The study also reveals that loosely woven fabrics, such as scarves have been shown to be the least effective.(14)

Non-complaint subjects to masks when evaluated for reason of the same, majority (69%) felt it was unnecessary. 21% complained of discomfort felt with use of masks. Kathleen Dohemy has also pointed out to claustrophobia, difficult to read lips & trouble breathing as common reasons for not wearing masks. (15)

Other effective measure in prevention of transmission is physical distancing. The measure has much evidence supporting it. A review by WHO backed study revealed that keeping a distance of atleast 3 feet from other people lowered the chances of coronavirus infection spread by 82% & keeping a larger distance of 2 m could be more effective. It was estimated that the speed with social distancing could contain transmission in cities as 1-day delay in implementing social distancing resulted in a containment delay of 2.41 (95% CI 0.97-3.86) days. (16)

The minimum safe distance for regular social activities that include breathing and talking was determined at 1.6–3 m (5.2–9.8 ft), while the maximum transmission distance was determined to 8.2 m (26 ft). These findings by Chanjuan Sun et al explain that extended social distancing can effectively mitigate the risk of infection.(17)

The study revealed only 6.1% subjects following the recommended social distance whereas majority (65%) were not practising any physical distancing

CONCLUSION:

India being a 2nd populous country of the world has a huge susceptible population for the novel SARS CoV-2. It started with its first case in January & is still continuing on with ever increasing numbers being labelled as number 2 contributors to the world cases of COVID 19. Similar is the scenario of UT J&K where first case was seen in March & the numbers are adding up till now. In absence of any effective vaccine available currently the only things reliable upon & very much possible are wearing of masks, physical distancing & maintaining hand hygiene. Although evidences point out to surgical masks & some specific cloth masks being effective nevertheless any mask be it even cloth mask could be an additional

tool to augment awareness of the importance of physical distancing in public places, thereby serving as a visual reminder. Thus robust IEC with reinforcement about the preventive measures & implementation of same by gaining confidence of community leaders with their active involvement can avert morbidity & mortality from COVID19 till an effective vaccine becomes available & accessible to masses at large.

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