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Negative attitude towards wearing facemask during COVID-19 pandemic: A survey based on educational settings

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Abstract
Objectives of the Study: In recent studies, it was suggested that wearing facemask in public places is an effective way to break the chain of spreading coronavirus (COVID-19). Early in the pandemic, some studies evident that wearing mask is not compulsory for healthy individuals and it reserved for health workers and the person infected with COVID-19 only. These types of statement create confound into public and increase the prevalence of wearing facemask. Therefore, the present survey study has been designed to investigate the attitude of students towards wearing facemask during COVID-19 pandemic.
Design of the Study: A Cross-sectional study design was adopted for the present study
Material and Methods: The sample consist of 1202 subjects from the Northern India, Haryana and Delhi NCR regions. The mean age of the subjects were 21.29 years (SD = 7.07, Range = 8 – 58 years) and 95% confidence interval for age was 21.29±0.40 margin of error for upper and lower bound. Data were collected between 15 March, 2021 to 12 April 2021 in general public settings (N=1206) using 'Google Form' an internet based self-report survey tool. Respondents completed a 12 items scale developed for assessing negative attitude toward wearing facemask. The present scale was derived from the study conducted by 'Steven Taylor' [1, 2] in United States and Canada. Independent 't' test and one way analysis of variance followed by Pot-hoc method was used for mean score of different groups. Level of significance was set at 0.05 respectively.
Results: A low prevalence towards wearing facemask observed among participant. A significant difference was taking into noticed between male and female participant in respect of wearing facemask. Male participant revealed high negative attitude towards wearing facemask. Similar outcomes observed in rural participants as male participants regarding practice of facemask. In respect of different age categories high negative attitude found in 8 to 18 years age group which indicate a higher disobedience among children and adolescence towards public health recommendations.
Conclusions: In conclusion, in the face of pandemic where, wearing facemask is a key preventive measure to break the chain of spreading the virus among masses. Based on obtained outcomes of the present study, it was recommended that govt. of India should take necessary implementation to improve the awareness of using facemask in public.

Keywords: SARS-CoV-2, negative attitude, facemask, students, rural, urban

Introduction
Coronavirus disease 2019 (COVID-19) is a second pandemic of this century after the influenza A H1N1 pandemic 2009 [2, 3]. Respiratory virus such as corona virus and influenza infect us via inhaling droplets and contaminated surfaces then rubbing our eyes, nose and mouth [4, 5]. Corona virus is a group of RNA virus, which cause disease in mammals and birds. In Human and birds, they cause respiratory infections ranged from mild to severe [6, 7]. The first human corona virus recognized in 2003, SARS-CoV, (Severe Acute Respiratory Syndrome Coronavirus) which can cause pneumonia (an inflammatory condition of lungs due to infection) [8]. Recent researches reveals spread of virus through the individual who has absence of symptoms of the disease. New guidelines of report that healthy individual can consider mask in public places where social distancing is difficult to maintain. The community mask used by healthy and well people could be beneficial and prevent the false feeling of safety [9]. The symptom of SARS-CoV-2 are likely to be as SARS-CoV include severe acute respiratory syndrome but with a higher infection fatality ratio for the aged and those with comorbidities.

WHO recommended for general public that wear a non-medical facemask in indoor (e.g. shared workplace, malls, schools etc) or outdoor settings where physical distancing of at least 1 meter may not be possible [10, 11]. In this context, Hong Kong, adopt the guidelines of community masking practice and has seen a significant lower rate of COVID-19 cases in comparison other western nations. Significant documentation observed in spread and declined in the nations who early adopt the mask wearing practice [3, 12-15].

It was reported by WHO regional directors for the western pacific in a virtual press conference on world health day, 7th April 2021, "COVID-19 has now resulted in more than 2.9 million deaths around the world" [16]. In India 90% people are aware about the mask practice but only 44% people wear mask [17]. In the East and South East Asia, the use of surgical mask as a measure of infection control is very common. In contrast, Western countries shows slow response to adopt mask [18, 19]. In United States 'CDC' recommended cloth mask in April, 2020 [20, 21]. In United Kingdom cloth mask was recommended in June to public transport setting only [22]. The Ministry of Health and Family Welfare, Govt. of India set the guidelines for international arrivals that, "*While on board the flight, required precautions such as wearing of masks, environmental hygiene, respiratory hygiene, hand hygiene etc. are to be observed by airline staff, crew and all passengers*" [23, 24]. Indian Council of Medical Research (ICMR) reported that COVID-19 pneumonia in pregnancy has mild effects and higher recovery rate but pregnant women with heart disease are on greater risk [25].

The pandemic of COVID-19 initially appeared to cause only a mild illness in children. However, it is now apparent that a small percentage of children can develop a hyperinflammatory syndrome labeled as Pediatric inflammatory multisystem syndrome — temporally associated with SARS-CoV-2 (PIMS-TS). Features of this newly recognized condition may include persistent fever, evidence of inflammation, and single or multi-organ dysfunction in the absence of other known infections [26]. In recent scenario, numerous new strains of SARS-CoV-2, the contributing agent of COVID-19, have appeared. The transmission rate of these strains have higher than original one which makes controlling this virus even more challenging [27-29]. The vaccination frequency as well as the developing the habit of wearing facemask can break the chain of spread of SARS-CoV-2.

Materials & methods

Sample

The sample consist of 1202 subjects from the Northern India, Haryana [1115 (92.76%)], and Delhi, [87 (7.24%)]. The Main cities and town include in the survey are Rohtak (8.07%), Jind (29.62%), Uchana (32.86%), Hisar (5.16%), Chandigarh (0.25%), Narwana (2.58%), Kaithal (1.00%), Panipat (0.42%), Bhiwani (1.41%), Gohana (0.25%), Rewari (3.41%), Karnal (0.83%), Kurukshetra (6.16%), Gurugram (1.25%) and Delhi (5.91%). The mean age was 21.29 years (SD = 7.07, Range = 8 – 58 Years) and 95% CI (Confidence Interval) for age was 21.29±0.40 margin of error for upper and lower bound. Out of the total sample 28.03% (N=341) were male respondents and 71.96% (N=865) were female respondents. (For detail characteristics of the subjects see table no. 1). The objectives of the study was find out the negative attitude towards wearing facemask in educational settings. Therefore, approximately 94% of the subjects were students and teacher belongs to different school, colleges and universities situated in Haryana and Delhi regions.

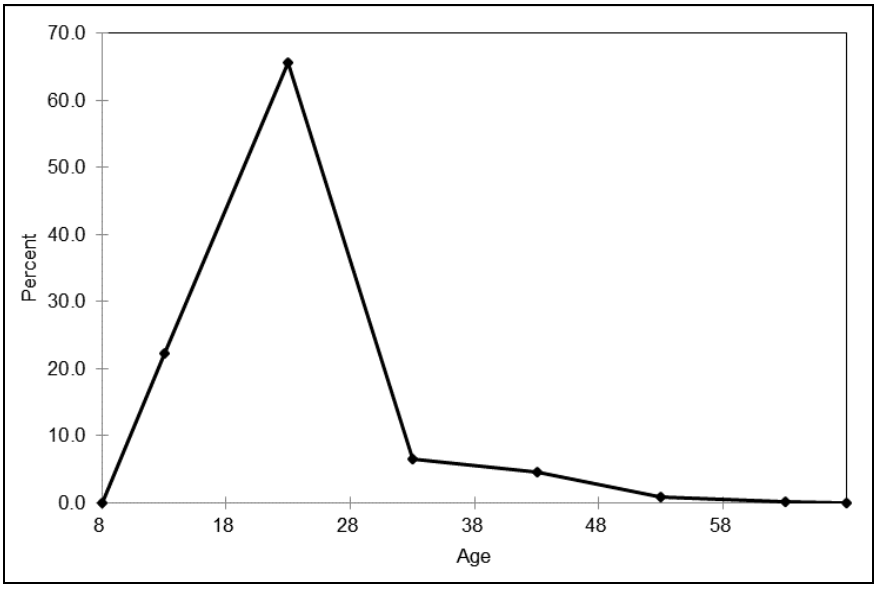

Fig 1: Frequency distribution of the age of the selected respondents showing 65.6% of the subjects were ranged from 18 to 28 years.

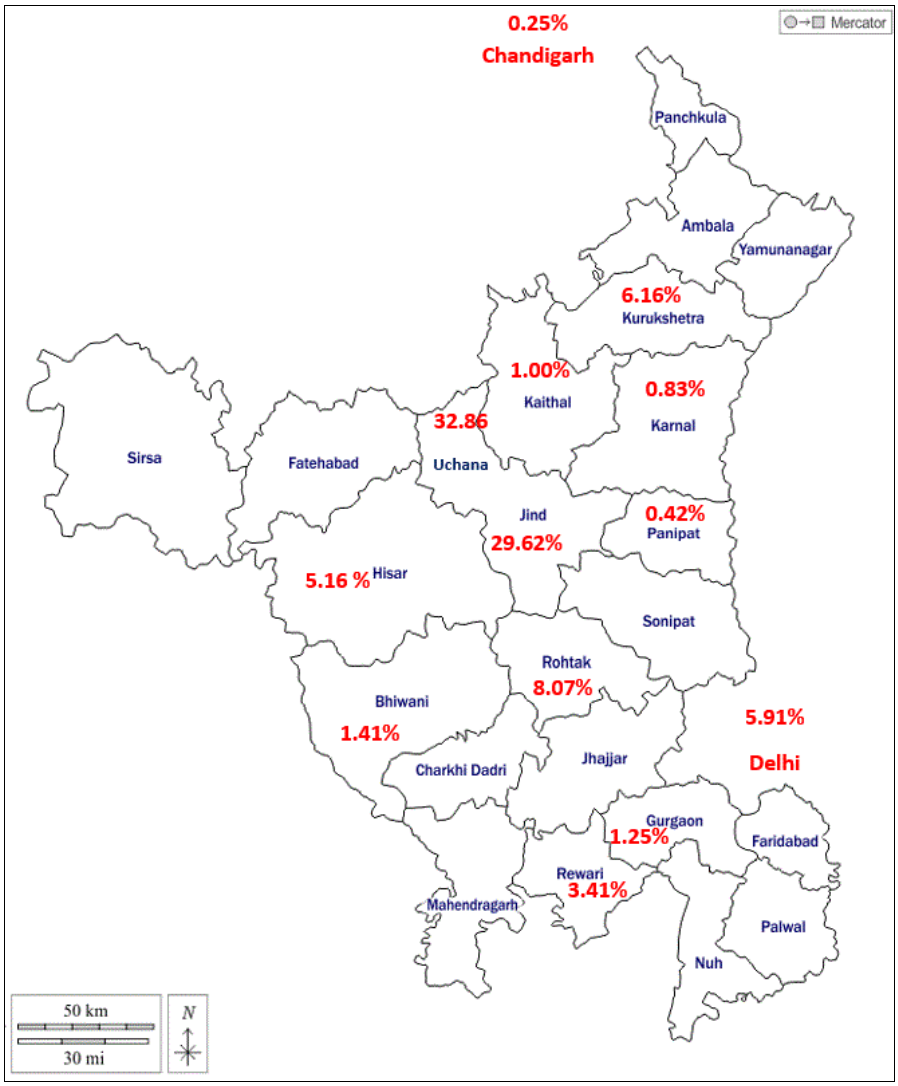

Fig 2: Showing distribution of the subjects in respect to their districts and territory (Chandigarh) of Haryana and NCR regions (Delhi)

Table 1: Subjects characteristics in response to their gender, region, highest educational qualification and their current working profession

Sr. No	Particulars	N (Percentage)
1	**Gender**	
	Male	341 (28.03%)
	Female	865 (71.96%)
2	**Region**	
	Rural	877 (72.96%)
	Urban	325 (27.03%)
3	**Educational Qualification**	
	Secondary	159 (13.22%)
	Senior Secondary	409 (34.02%)
	Graduate	407 (33.86%)
	Post Graduate	227 (18.88%)
4	**Profession**	
	Students	1020 (84.85%)
	Teachers	126 (10.48%)
	Farmer	5 (0.41%)
	Labor	8 (0.66%)
	Businessmen	6 (0.49%)
	Housewives	10 (0.83%)
	Sportsperson	10 (0.83%)
	Doctor	2 (0.16%)
	Politician	#
	others	15(1.24%)
# = Data not available		**Total=1206**

Data Collection Procedure

Data were collected between 15 March, 2021 to 12 April 2021 in general public settings (N=1206) using 'Google Form' an internet based self-report survey tool administered

in English as well as in Hindi medium to facilitate the perceive of respondents in context of the concept of questionnaire. Before filling up the form consent has been taken from the respondents. After the approval of respondents, the survey has been administered. Some volunteers were also assigned by the researcher to complete the survey from various district and cities of northern India, specially focusing Haryana and NCR regions (Delhi). The respondents were asked to give honest opinion. At the end the data filtration was applied to eliminate the careless or uncompleted responses.

Criterion Measures

Participants completed an online questionnaire including personal information questions. Respondents completed a 12 items scale developed for assessing negative attitude toward wearing facemask. The present scale was derived from the study conducted by 'Steven Taylor' in United States and Canada [1]. Some modifications were also made by researcher in context of the desired objectives and Indian perspective requirements. The participants ranked the responses on 7 point Likert scale which are ranged from 1 (strongly disagree) to 7 (strongly agree), where, high score indicate greater negative attitude towards wearing facemask. An additional information was also collected such as 'How much time in a day you wear a mask' and the subjects were asked to responds in hours out of 24 hours respectively. An attempt has been made to identify the places where people were mask and not wear mask.

Statistical Procedure

For the comparison various categories of subjects independent sample 't' test was performed as well as one way analysis of variance (ANOVA) with multiple comparison (Post-hoc) was performed among different age categories to analyzed the significant differences. An ANOVA can only reveals if results are significant overall, but will not tell exactly where those differences lie. Therefore, least significant difference (LSD) method developed by Fisher was used to measure the smallest significant difference between two means. LSD enable direct comparison between two mean from two individual group. Mean and Standard deviation was use as descriptive statistics. Whereas, the percentage method was applied for obtained multiple responses. All statistics computations were performed using SPSS. 20 package. The level of significance was set at 0.05 respectively.

Results of the study

Table 2: Percentage Distribution of the Responses of Overall Subjects in respect of the Statements of Negative Attitude Scale.

	Strongly Disagree	***Disagree***	***Disagree Somewhat***	***Neutral***	***Agree Somewhat***	***Agree***	***Strongly Agree***
I do not like feeling forced to wear a facemask (psychological reactance).	30.1	9.5	6.6	12.5	8.2	4.1	28.8
Facemasks are ineffective.	49.5	12.2	8	9.3	4.6	2.9	13.5
Facemask make me feel exhaustive	36.7	12.3	9.5	11.9	7.8	4.6	17.2
Facemasks provide a false sense of security	59.2	9.6	6.9	7.6	4.3	1.7	10.6
Facemasks are unsafe because they force you to touch your face	47.5	13.8	8.7	8.6	6.4	3.7	11.2
It is hard to develop the habit of wearing a facemask	28.7	11.9	11.4	12.4	9.5	5.5	20.6
Wearing a facemask is too much of a hassle	33.2	16.6	9.2	12	7.5	5.6	15.9
Facemasks look ugly or weird.	52.8	15.9	7.9	7.2	4.5	2.5	9.1
Facemasks make people untrustworthy	49.0	13.8	9.8	11.3	4.5	2.4	9.2
It is difficult to breathe when wearing a facemask	25	12.5	11.5	11.2	8.5	9.1	22.1
Facemasks cause me to overheat	35.7	14	10.6	12.1	7.5	5.6	14.3
I wear mask only to avoid unnecessary fines	56.6	11.7	4.9	8.3	4.1	2.7	11.5
(N =1206)							

Table 2: The majority of respondents (53.6%) reported that they do not like forced to wearing facemask. Some studies also shows psychological reactance towards wearing facemask [30]. Whereas, 21% of respondents reported that facemasks are ineffective in their concern, which indicate a higher degree of disobedience to public health recommendations. Approximately 30% respondent reported that they feel exhaustive when wear facemask. It was observed that 16.6% responded believe that facemask provide false sense of security. It indicate that people are not fully aware & acknowledge towards the effectiveness of facemask in public settings. A high degree of respondents (70%) deny that facemask are unsafe due to the frequency of touching your face. It indicate the adherence to public health recommendations. 35.6% respondents feel that it is difficult for them to develop a hobby of wearing facemask. Almost 40% respondents shows incomparability in proper breathing during wearing facemask. The source of information is an important factor to being acknowledged towards used and effectiveness of wearing facemask and to reduce the spread of COVID-19 [31]. It was reported by 27.4% respondents that wearing facemask cause overheat and almost 18% respondents reported that they wear facemask to avoid unnecessary fines only. In the current situation of COVID-19 pandemic, a single positive person can spread the virus into a society. Unfortunately, the awareness toward wearing facemask is very low in public settings.

Table 3: Scores on measure of negativee attitude in context of wearing facemask of Male and Female Subjects

	Male (N=337)	Female (N=868)	t (df=1204)
	M (SD)	M (SD)	
I do not like feeling forced to wear a facemask (psychological reactance).	3.93 (2.47)	3.84 (2.43)	0.563
Facemasks are ineffective.	2.91 (2.29)	2.61 (2.11)	2.167*
Facemask make me feel exhaustive	3.61 (2.37)	3.09 (2.20)	3.606*
Facemasks provide a false sense of security	2.60 (2.20)	2.26 (1.96)	2.621*
Facemasks are unsafe because they force you to touch your face	2.94 (2.26)	2.58 (2.02)	2.726*
It is hard to develop the habit of wearing a facemask	3.70 (2.29)	3.57 (2.27)	0.885
Wearing a facemask is too much of a hassle	3.47 (2.24)	3.15 (2.19)	2.286*
Facemasks look ugly or weird.	2.56 (2.04)	2.31 (1.91)	2.042*
Facemasks make people untrustworthy	2.83 (2.10)	2.40 (1.89)	3.388*
It is difficult to breathe when wearing a facemask	4.00 (2.22)	3.74 (2.32)	1.773
Facemasks cause me to overheat	3.35 (2.16)	3.08 (2.18)	1.925
I wear mask only to avoid unnecessary fines	2.84 (2.31)	2.30 (2.00)	4.028*
*(Significant at = 0.05, $p < 0.05$)			

Table 3: Comparison between genders toward facemask wearing are provided in table no 2. The obtained outcomes reported that a statistically significant difference found between male and female subjects. The male subjects are highly contravene toward regulation of facemask wearing standards. The participants were given following items (N=12) given in table above. In context of the statement '*Facemask are ineffective*', the mean score of male subjects are greater than female subjects and calculated t value (2.167) is significant at 0.05 level of significance. In context of the statement that '*facemask make me feel exhaustive*', the t value (3.606) is also significant and showing negative attitude of male subjects towards wearing facemask. When it was asked to the participant that '*facemask provide a false sense of security'*, the calculated t value (2.621) is also significant between the mean score of male and female subjects. There are total 12 items in the scale, out of that, 8 statements shows tendency of male participants towards disobedience towards use of facemask in public settings. The present results were supported by the research study conducted by Matt C. Howard and reported that, "Men were significantly more likely to perceive face masks as infringing upon their independence" [32]. An another study reported that, "the odds of an individual wearing a mask increased significantly with age and was also 1.5x greater for females than males" [32-36].

Table 4: Scores on measure of negative attitude in context of wearing facemask of Rural and Urban Subjects

	Rural (N=880)	Urban (N=325)	*t (df=1204)*
	M (SD)	M (SD)	
I do not like feeling forced to wear a facemask (psychological reactance).	3.83 (2.46)	3.96 (2.39)	-0.872
Facemasks are ineffective.	2.78 (2.18)	2.47 (2.12)	2.226*
Facemask make me feel exhaustive	3.26 (2.27)	3.17 (2.22)	0.644
Facemasks provide a false sense of security	2.36 (2.03)	2.34 (2.05)	0.150
Facemasks are unsafe because they force you to touch your face	2.73 (2.13)	2.55 (1.99)	1.353
It is hard to develop the habit of wearing a facemask	3.65 (2.28)	3.47 (2.25)	1.231
Wearing a facemask is too much of a hassle	3.27 (2.22)	3.16 (2.18)	0.741
Facemasks look ugly or weird.	2.45 (2.00)	2.19 (1.80)	2.029*
Facemasks make people untrustworthy	2.54 (1.99)	2.48 (1.88)	0.478
It is difficult to breathe when wearing a facemask	3.77 (2.29)	3.92 (2.30)	-1.050
Facemasks cause me to overheat	3.19 (2.21)	3.07 (2.10)	0.849
I wear mask only to avoid unnecessary fines	2.43 (2.08)	2.52 (2.17)	-0.704
*(Significant at = 0.05, $p<0.05$)			

Table 4: Showing the attitude of facemask wearing in context of rural and urban participant. Rural participant showing put by behavior in comparison of urban participants in respect of facemask wearing approach. The calculated value of t (2.226) for the statement, '*Facemasks are ineffective*' found significant in favor of rural participant. Rural participant feels that *facemasks looks ugly or weird.* It is a matter of concern that 80% of Indian population lives in rural areas and their negative attitude may help in spread the COVID-19 virus among masses. Some studies reported alike results for instance, a study conducted by (Ferdous *et al*.) in Bangladesh reported that, " More frequent prevention practice factors were associated with female sex, older age, higher education, family income > 30,000 BDT, *urban area residence*, and having more positive attitudes" [37]. Similar results were analyzed in the study conducting in Vietnam on 728 University participants, which reported that, "Among 728 participants, 40.9% (298/728) were male, 63.2% (460/728) were from health-related faculties, 46% (335/728) lived in *urban areas*, and 51.9% (378) had good levels of COVID-19 knowledge" [38]. It was observed that all over the globe similar pattern of the spread of COVID-19 virus has been recognized. Therefore, the govt. of India should take necessary actions to prevent the rise of SARS-CoV-2 among general settings accordingly. As per the obtained outcomes, it may be possible that due to the negative attitude toward facemask wearing people are inviting 3rd wave where the virus has more spreading capacity and mutant in nature in comparison of 2nd wave which has already faced by Indian masses and dangerous consequence are come out.

Table 5: Total Mean Scores of the measure of negative attitude in context of wearing facemask among different age groups

Age Group	N	Mean (SD)	F	Sig. (Two Tailed)
8 – 18	271	38.18 (17.26)	3.214*	0.012
18 – 28	789	35.59 (17.25)		
28 – 38	78	37.89 (17.27)		
38 – 48	56	30.28 (14.72)		
48 – 58	12	31.58 (13.36)		
Total	**1206**			

F = 3.214, (4) 1201, $p < 0.05$

Table 6: Multiple Comparison of the mean score of different age groups in their negative attitude of wearing facemask.

Age Groups					Mean Difference	Std. Error	Sig.
(8 – 18)	(18 – 28)	(28 – 38)	(38 – 48)	(48 – 58)			
38.18	35.59				2.59	1.20	.200
38.18		37.89			0.29	2.19	1.00
38.18			30.28		7.90	2.51	**.015***
38.18				31.58	6.60	5.05	.686
	35.59	37.89			-2.30	2.031	.789
	35.59		30.28		5.31	2.36	.165
	35.59			31.58	4.01	4.97	.929
		37.89	30.28		7.61	2.99	.083
		37.89		31.58	6.31	5.30	.758
			30.28	31.58	-1.30	5.44	.999

Table 5: Showing mean score of the measure of negative attitude of the participant of different age groups. Here total score of the scale (sum of N=12 items) taking into consideration where, high score indicate greater negative attitude towards facemask wearing. One-way analysis of variance followed by multiple comparison [(Post-hoc, (LSD= Least Square Difference)] method was performed to find out the significant difference amid the different age groups of the participants. The calculated value of the F (F = 3.214, (4) 1201, p<0.05) was found significant which indicate variation between the age groups in their attitude towards wearing facemask.

Table 6: The mean score of age group 8-18 years with mean difference of 7.90 reveals the significant difference with age groups of 48-58 years. Whereas, no significant difference was observed between the rest of age groups. while, serious consequence are point out by this section of the study that age group of adolescent and pre-adolescent are very less acknowledged towards practice and use of wearing facemask. As the govt. suggest that 3rd wave may be come. With this point of view insufficient knowledge as well as awareness of wearing facemask may lead to serious consequence among the children and adolscent.

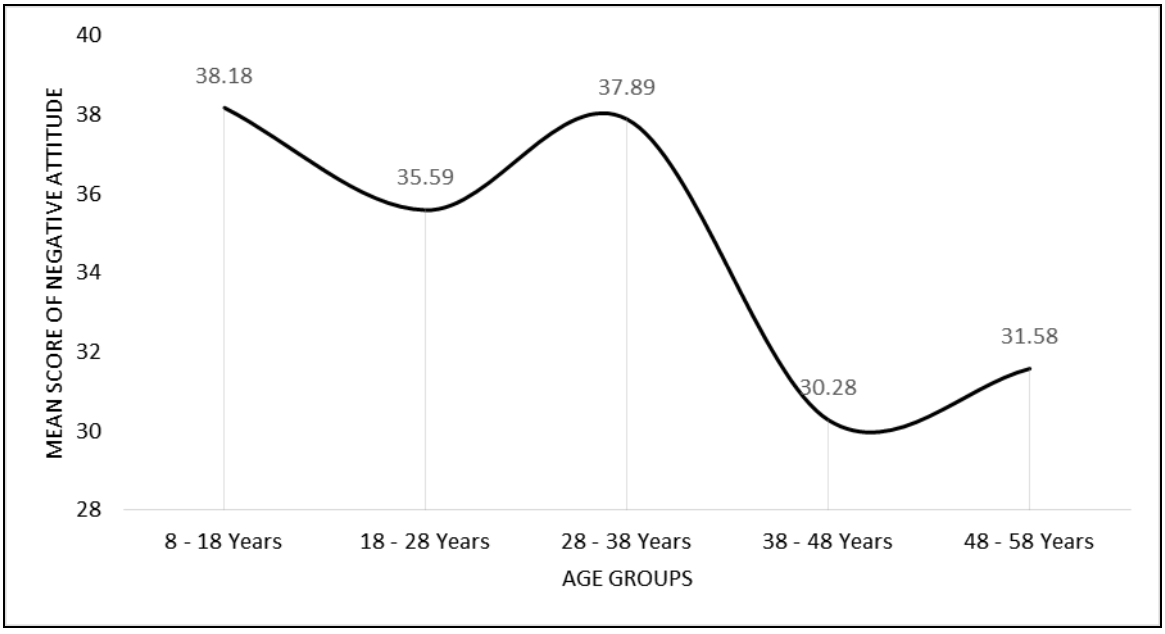

Fig 3: Showing distribution of the mean score of the measure Negative Attitude in respect of various age categories

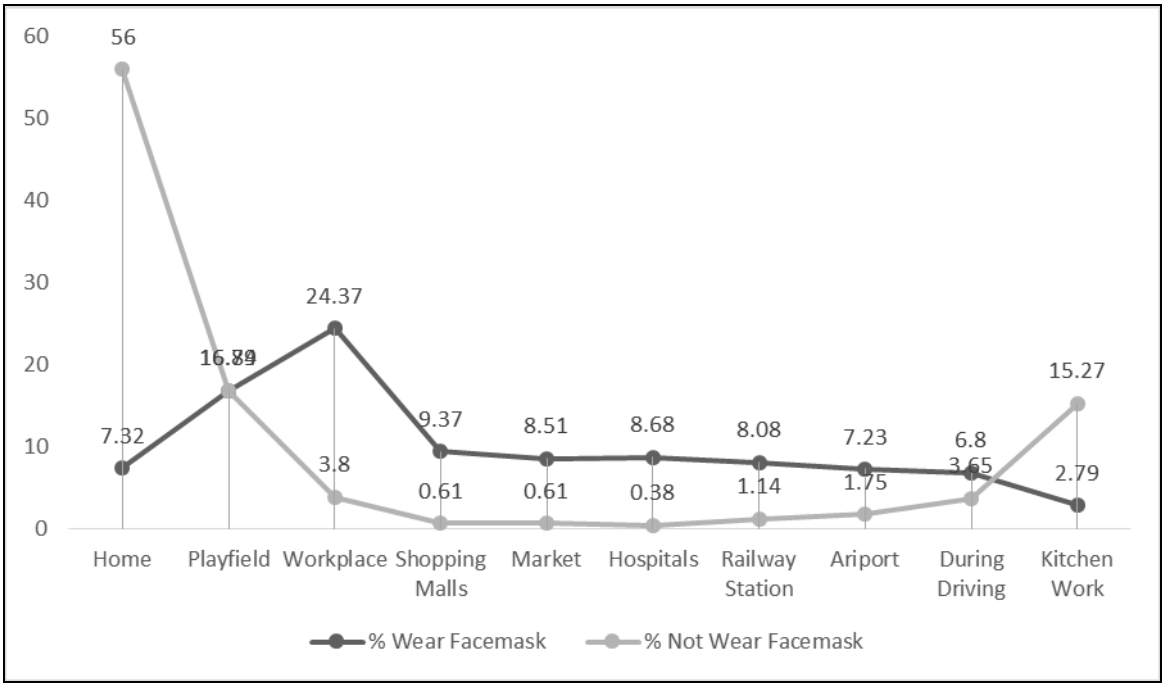

Fig 4: Showing people preferences for wearing facemask and not wearing facemask in terms of percentage in given line graph. Here, 24.37 % respondents prefer their workplace for using facemask and 56 % respondents report that they do not use facemask at home. A very low degree (<10%) of respondents wear facemask at public places such as shopping malls, market, hospitals, railway station, airport and during driving respectively. [N =1206, Multiple Responses]

Discussion

Global response to the COVID-19 pandemic has exposed inherent weaknesses in our preparedness and response. The lessons learnt and costly mistakes must make us wiser enough not to repeat these and take preemptive steps. The majority of the respondents (53%) in the present study reported not to like forced to wearing facemask, which indicate the high degree of disobedience to public health recommendations. The results reveals that people in Indian perspective especially in rural areas are not familiar with the use to facemask as well as facemask is not in their common settings. The evidence advocates that, "protection by masks in high transmission settings such as household and college settings, especially if used early" [39]. A high negative attitude found in male respondents than female. Male subjects are more likely to understand face mask as infringing on their independence [32]. In context of rural and urban areas, rural participant found higher negative attitude toward wearing facemask. It is essential to develop relevant educational programs related to improve knowledge and awareness of COVID-19 in general population among Indian perspective especially in rural areas. The negative attitude of wearing facemask found higher in children and adolescent (age ranged from 8 to 18 years) which indicate insufficient knowledge and practice of using facemask in public settings. It is a responsibility of govt. as well as elderly person of family that they spread awareness and acknowledgement among adolescents towards the use of wearing facemask to prevent COVID-19 as well. COVID-19 pandemic in their initially period reports mild illness in children." *However, it is now apparent that a small percentage of children can develop a hyperinflammatory syndrome labeled as Pediatric inflammatory multisystem syndrome - temporally associated with SARS-CoV-2 (PIMS-TS)*" [26]. "More recently, a French study described a new syndrome complex of acute heart failure and hyperinflammation in children" [40].

In respect of the preference of the places where people wear facemask and not wear facemask (Figure No. 4) report that majority (24.37) of the people prefer their 'workplace' to wear facemask while, 56% prefer 'Home' as a place to not wear facemask. However, A very low degree (<10%) of respondents wear facemask at public places such as shopping malls, market, hospitals, railway station, airport and during driving respectively.

Conclusions

In conclusion, in the face of pandemic where, wearing facemask is a key preventive measure to break the chain of spreading the virus among masses. A high negative attitude was observed in Indian perspective especially in male participant, children and adolescents (age ranged from 8 to 18 years and respondents of rural regions. Based on obtained outcomes of the present study, it was recommended that govt. of India should take necessary implementation to improve the awareness of using facemask in public.

References

1. Taylor S, Asmundson GJG. Negative attitudes about facemasks during the COVID-19 pandemic: The dual importance of perceived ineffectiveness and psychological reactance, *medRxiv*, 2020, pp. 1-15. doi: 10.1101/2020.11.17.20233585.
2. Yadav VN, Kumar S, Kumar S, Nara K. Happiness and life satisfaction: A correlational study. Indian Journal of Positive Psychology. 2012;3(1):62.
3. Cheng VCC, *et al.*, The role of community-wide wearing of face mask for control of coronavirus disease 2019 (COVID-19) epidemic due to SARS-CoV-2. Journal of Infection. 2020;81(1):107-114. doi: 10.1016/j.jinf.2020.04.024.
4. Isaacs D, *et al.*, Do facemasks protect against COVID-19? Journal of Pediatrics and Child Health. 2020;56(6):976-977. doi: 10.1111/jpc.14936.
5. Nara K. Self-Esteem of sportspersons: A study of male and female sportspersons. International journal of Physical Education, Sports and Health. 2017;1(2):34-36.

6. Contributors W. No Title, Wikipedia, The Free Encyclopedia, 2021.
7. Nara K. Level of depression among the male and female athletes of Maharishi Dayanand University, Rohtak. International Journal of Physiology, Nutrition and Physical Education. 2018;3(1):128-130.
8. Forgie S, Marrie TJ. Healthcare-associated atypical pneumonia, Seminars in Respiratory and Critical Care Medicine. 2009;30(1):67-85. doi: 10.1055/s-0028-1119811.
9. MacIntyre CR, Chughtai AA. A rapid systematic review of the efficacy of face masks and respirators against coronaviruses and other respiratory transmissible viruses for the community, healthcare workers and sick patients. International Journal of Nursing Studies. 2020;108:103629. doi: 10.1016/j.ijnurstu.2020.103629.
10. Sonja JCS, Rasmussen A. Since Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID. Ann Oncol, 2020, pp. 19-21.
11. WHOa. Mask use in the context of COVID-19, *Who*, no. December, 2020, pp. 1-10.
12. Chu DK, *et al.*, Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis, The Lancet. 2020;395(10242):1973-1987. doi: 10.1016/S0140-6736(20)31142-9.
13. Eikenberry SE, *et al.* To mask or not to mask: Modeling the potential for face mask use by the general public to curtail the COVID-19 pandemic, Infect Dis Model. 2020;5:293-308. doi: https://doi.org/10.1016/j.idm.2020.04.001.
14. Khalik S. "No Title," Coronavirus: Chief medical officer responds to view that everyone should wear a mask to avoid infection, 2020. https://www.straitstimes.com/singapore/health/coronavirus-chief-medical-officer-responds-to-view-that-everyone-should-wear-a-mask (accessed Apr. 08, 2021).
15. Nara K. Study of mental health among sports person. International journal of physical education sports and Health. 2017;4(1):34-37.
16. Kasai DT. Virural press conference WHO.pdf. https://www.who.int/westernpacific/news/speeches/detail/virtual-press-conference-on-world-health-day-and-covid-19-in-the-western-pacific-7-april-2021
17. Alves G. The Economic Times, Survey says 90% Indians aware, but only 44% wearing a mask; discomfort key reason for non-compliance, Apr. 08, 2020.
18. Worby CJ, Chang HH. Face mask use in the general population and optimal resource allocation during the COVID-19 pandemic, Nature Communications. 2020;11(1):1-9. doi: 10.1038/s41467-020-17922-x.
19. Nara K. A study of physical fitness between basketball and football players of Haryana. International journal of physiology, Nutrition and Physical Education. 2017;2(1):35-37.
20. Wang GH, Zhang YT, Zhao J, Zhang J, Jiang F. Mitigate the effects of home confinement on children during the COVID-19 outbreak. Journal of Shanghai Jiaotong University (Medical Science). 2020;40(3):279-281. doi: 10.3969/j.issn.1674-8115.2020.03.001.
21. Greenhalgh T, Schmid MB, Czypionka T, Bassler D, Gruer L. Face masks for the public during the covid-19 crisis, The BMJ. 2020;369:1-4. doi: 10.1136/bmj.m1435.
22. D. for Transport, "No Title," Face coverings to become mandatory on public transport, 2020. https://www.gov.uk/government/news/face-coverings-to-become-mandatory-on-public-transport (accessed Apr. 08, 2021).
23. Ministry of Health and Family Welfair Govt. of India, "Guidelines for International Arrivals, 2021.
24. Nara K. A Comparative Study of Frustration among University Sports and Non-Sports Person, Research Journal of Humanities and Social Sciences. 2013;4(2):254-257.
25. Indian Council of Medical Research, "Guidance for Management of Pregnant Women in COVID-19 Pandemic, National Institute for Research in Reproductive Health, 2020, pp. 1-17.
26. AVRS, Chandrika Bhat, Latika Gupta, Balasubramanian S, Surjit Singh. Hyperinflammatory Syndrome in Children Associated with COVID-19: Need for Awareness, Indian Pediatrics. 2020;57:929-935.
27. van Oosterhout C, Hall N, Ly H, Tyler KM. COVID-19 evolution during the pandemic–Implications of new SARS-CoV-2 variants on disease control and public health policies, Virulence. 2021;12(1):507-508. doi: 10.1080/21505594.2021.1877066.
28. Nara K, Kumar P, Rathee R, Kumar J. The compatibility of running-based anaerobic sprint test and Wingate anaerobic test: a systematic review and meta-analysis, Pedagogy of Physical Culture and Sports. 2022;26(2):134-143.
29. Parveen DJP. Developing a Regression Model for Psychological Factors Predictor of Sports Injuries, Int. J. Phy. Edu. Spo. 3(04):75-79.
30. Scheid JL, Lupien SP, Ford GS, West SL. Commentary: Physiological and psychological impact of face mask usage during the covid-19 pandemic. International Journal of Environmental Research and Public Health. 2020;17(18):1-12. doi: 10.3390/ijerph17186655.
31. Hornik R, Kikut A, Jesch E, Woko C, Siegel L, Kim K. Association of COVID-19 Misinformation with Face Mask Wearing and Social Distancing in a Nationally Representative US Sample, Health Communication, 2021;36(1):6-14. doi: 10.1080/10410236.2020.1847437.
32. Howard MC. Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information, 2020.
33. Haischer MH, *et al.*, Who is wearing a mask? Gender-, age-, and location-related differences during the COVID-19 pandemic, *PLoS ONE*. 2020;15(10):1-12. doi: 10.1371/journal.pone.0240785.
34. Howard M. Gender, face mask perceptions, and face mask wearing: Are men being dangerous during the COVID-19 pandemic?, Personality and Individual Differences. 2021;170:110417. doi: 10.1016/j.paid.2020.110417.
35. Lee LYK, *et al.*, Practice and technique of using face mask amongst adults in the community: A cross-sectional descriptive study, BMC Public Health. 2020;20(1):1-11. doi: 10.1186/s12889-020-09087-5.
36. Morishima M, Kishida K, Fukagawa M. Investigating facemask problems associated with wearing comfort and fit, International Journal of Clothing Science and Technology, vol. ahead-of-p, no. ahead-of-print, 2021. doi: 10.1108/IJCST-05-2020-0067.

37. Ferdous MZ, Islam MS, Sikder MT, Mosaddek ASM, Zegarra-Valdivia JA, Gozal D. Knowledge, attitude, and practice regarding COVID-19 outbreak in Bangladesh: An onlinebased cross-sectional study, *PLoS ONE*, 2020;15(10):1-17. doi: 10.1371/journal.pone.0239254.
38. Duong MC, Nguyen HT, Duong BT. A Cross-Sectional Study of Knowledge, Attitude, and Practice Towards Face Mask Use Amid the COVID-19 Pandemic Amongst University Students in Vietnam. Journal of Community Health, no. 0123456789, 2021. doi: 10.1007/s10900-021-00981-6.
39. Aiello AE, Perez V, Coulborn RM, Davis BM, Uddin M, Monto AS. Facemasks, hand hygiene, and influenza among young adults: A randomized intervention trial, PLoS ONE. 2012;7:1. doi: 10.1371/journal.pone.0029744.
40. BZ. *et al.* Acute heart failure in multisystem inflammatory syndrome in children (MIS-C) in the context of global SARS-CoV-2 pandemic, Circulation. 2020;33:0.