

# The impact of 1ST Wave of COVID -19 unlock and COVID-19 2nd wave lockdown on the Outpatient Department of Paediatric and Preventive dentistry of Rama Dental college, Hospital & Research Centre, Kanpur

## Abstract:

**Background :** Coronavirus (COVID-19) is an infectious disease affecting the millions of populations. World health organization has declared COVID -19 has an emergency.

**Methods:** A Questionnaire study was conducted from September 2020 and April 2021 to know the impact of 1<sup>st</sup> wave of COVID -19 unlock and COVID-19 2<sup>nd</sup> wave lockdown on the Outpatient Department of Paediatric and Preventive Dentistry of Rama Dental college, Hospital & Research Centre. Sociodemographic characteristics such as gender, age was collected through OPD. A questionnaire containing the knowledge of parents regarding COVID -19 was seen. Categorical data were compared using a chi-square test.

**Results:** A significant difference was observed in both the waves affecting the Outpatient department. waves ( $p < 0.01$ ).

**Conclusion:** Significant differences between both waves were noticed affecting the OPD of the colleges, private clinics. Increase in knowledge of parents regarding Covid -19 was seen.

**Keywords:** COVID-19; COVID Lockdown; Parent Awareness; Pedodontics; Pandemic

## Introduction:

A novel coronavirus Covid-19 pandemic has emerged as emergency public health crisis across the world. On 30th January 2020, it was declared as community health emergency of international concern, with high risk to many countries[1]. The emergence of first case was found in Wuhan city, China in December. COVID -19 is also known as SARS Cov-2. Coronavirus are single stranded RNA genome with virus evolved around. The virus is found in nasopharyngeal secretions and salivary secretions of the affected patients. Older people with underlying medical problems such as cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illnesses[2]. COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes, so practicing respiratory etiquette is important.

Many countries have experienced different waves with different variants. Consequently, many governments and health authorities, including the WHO, have been actively educating people to take preventive measures to reduce the spread of the virus, including lockdown measures[3]. The Government of India issued a nationwide lockdown on the evening of March 24, 2020, restricting the movement of the whole 138 billion (138 crore) population of India as a preventive precaution against the COVID-19 pandemic in

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India<sup>4</sup>. Coronavirus has given dentists a new challenge to deal with the patients. Recent studies have reported that many dental procedures produce aerosols and droplets that are contaminated with bacteria, viruses, and blood have the potential to spread infections to dental office and personnel[15]. The health authorities of some cities in India ordered dental institutions to suspend general nonemergency dental treatment while providing emergency dental services[6].

One of the most important measures of oral health evaluation and awareness is dental attendance. Patients' dental treatments have been disrupted due to the shutdown of dental clinics due to the COVID-19 outbreak[7]. Through social media, the public has gotten a lot of information regarding COVID-19 that could be false and alarmist, causing confusion and worry. In research conducted by Sun et al., 81 % of parents showed confidence in the clinic; yet, 83.78 % said they would only take their child to a dentist if they were in significant pain.<sup>4</sup> In a survey of 1,003 Brazilian parents, only 18 % said they would take their children to the Dental clinic for any procedure, while 67 % said they would only take them for emergencies, and 15 % said they would refuse dental care entirely[8].

The novel coronavirus disease 2019 (COVID-19) pandemic may be stressful for people, as fear and/or anxiety about a new disease, its rapid transmission and its uncertain outcomes can be overwhelming to both adults as well as in children<sup>9</sup>. As countries introduce measures to restrict movement as part of efforts to contain the COVID-19 infection transmission, general public has also been making huge changes to our daily routines and habits. Public health actions such as social distancing, quarantines, nationwide lockdowns, school closures as well as the impact of the virus on the families of infected can make people & their children feel isolated, lonely, helpless which can add to stress and anxiety already caused by the disease itself[10].

During the COVID-19 outbreak, people receive a large volume of inconsistent information through social media which has suggested higher chances of infection transmission risks during dental appointments without any scientific and published evidence for the same[11]. The knowledge of various reasons that are causing anxiety among the public is important for the dental professionals.

Hence, this research was undertaken to investigate the impact of COVID-19 on dental attendance patterns of patients attending the Rama Dental Hospital's Department of Paediatric and Preventive Dentistry's OPD.

**Materials and methods:**

A questionnaire study was conducted in Pediatric and preventive dentistry department in Rama dental hospital, Kanpur. Data was collected between September 2020 and April 2021. The study population was between 0-17 years of age.

Pre-validated Questionnaire was used which consists of Demographic details of the participant, level of knowledge or KAP (Knowledge, attitude and practice) regarding COVID-19 and questions regarding changes in their perception regarding dentistry and dental treatment.

**Statistical Analysis:**

We summarised the characteristics for continuous and categorical data as numbers and percentages. Characteristics were compared using descriptive statistics, and categorical data were compared using a chi-square test, whereby  $p < 0.05$  was considered to indicate statistical significance. Statistical analysis was performed using the Statistical Package for the Social Sciences Program (SPSS), version [22].

**Results:**

Out of 365 respondents, 200(57.4%) were male and 150 (42.6%) were female. Majority of the respondents belong to the age group of 6-11 years followed by 12-17 years and 0-5 years.

Table 1: Demographic details

Variables	Details	Frequency	Percentage
Age	0-5 years	108	17.0
	6-11 years	324	51.1
	12-17 years	202	31.9
Gender	Male	364	57.4
	Female	272	42.6

Table 2: Questionnaire

Questions		Frequency	Percentage
What is corona?	virus	365	100
	bacteria	00	00
	fungi	00	00
	Protozoa	00	00
Most symptoms of COVID-19	Fever, running nose, fever	304	80
COVID-19 is transmitted via	Droplets Or contaminated surface	200	70
	Person to person	165	65
After exposure to COVID-19 it takes how many days to develop symptoms?	2 days	50	40
	3 days	50	40
	4 days	50	40
	5 days	200	70
Are you afraid to go out after corona?	Yes	300	80
	No	50	20
Is your child going out of the house during corona pandemic?	Yes	200	70
	Playground	100	30
Measures taken by you to maintain hygiene?	Frequent handwash only	150	40
	Sanitization and face mask only	100	30
	All of the above	100	30
Do you know how to wear mask?	Yes	300	80
	No	50	20
Will you visit the dentist in case of emergency dental situation of the child during this period?	Yes	300	80
	No	50	20
Will you want your child to be treated at dental clinic in current situation if need arise?	Yes	100	20
	No	250	80
Will you make a pre-appointment call before visiting the dental clinic	Yes	50	10
	No	300	90

Regarding the knowledge of the parents 100% of the parents knew that corona is a virus. Majority of the parents (60.3%) were had the knowledge about common COVID-19 associated symptoms such as fever, tiredness and dry cough. According to the respondents, majority (70%) considered that after exposure to COVID-19 it will take 5 days to develop the symptoms. 70% of the respondents think that Covid- 19 is transmitted through droplets and 65% considered to transfer through person to person.80% of the parents are afraid to go out of their houses due to Covid-19 related anxiety. Only 70% of the children were going out of houses even during the pandemic. Mostly all (100%) the parents were taking all the measures taken to maintain hygiene i.e., use of facemask, regular handwash and use of sanitizer. Also, 99.3% parents were sure of using facemask properly. Majority of the parents agreed that they have brought maximum changes in the hygiene level of their child.

In response to the question of visit to dentist in emergency, dental situation 80% parents agreed to visit dentist, 20% were not sure.

**Discussion:**

Around the world, news emphasizing the strict personal hygiene control measures required for combating COVID-19 and its transmission, people all over the world have become even more conscientized when visiting health centres, including dental clinics, be it any treatment (restorative or surgical)[11]. The number of patients attending dental clinics had affected the OPD of children. The patients attending dental clinics at the start of the pandemic was substantially reduced globally, for fear of contracting the COVID-19 infection when exposed to the environment and/ or other humans[12].

In our study, we found that majority of the participants is aware of Covid-19 and precautions measures, route of administration taken for Covid -19. Whereas in a study by Yip HK et al (2007)[19] less than one-third (30.0%) of the 463 respondents said they were not afraid of contracting the SARS coronavirus from their dentists and did not avoid dental treatment for that reason. Nearly three-fifths (56.7%) did not worry about contracting SARS from dental treatment. In a study conducted by Ifhtikar N et al marathon half of the parents are not prepared at all to send their children to school or outside the house. Aside from hand hygiene, one of the infection control measures is the routine use of a face mask. Face mask works by providing a physical barrier between the mouth and nose of the wearer and potential contaminants in the immediate environment[21]. Face masks are commonly used. Some of the studies have found that Hand washing can prevent to further spread the virus. It has been found that parents can help their child stay active and creating awareness and encouraging their child to play outdoors with all safety measures. Covid-19 has impacted the Outpatient department of private clinics, Practitioners as well as institutions leading to neglecting oral health.

Thus, it ought to be primary responsibility that parents should be educated that Dentists take preventive measures by health authorities, taking care of patient screening, hospital environment disinfection and provision of protective equipment for both dentists as well as patient. Parents should be educated that timely medical treatment is the need of hour

in the pandemic. Good oral and medical health should be taken care with appropriate precautions in the pandemic.

### Conclusion:

The present study shows significant differences between both waves in the pandemic. In general, infection control measures such as wearing masks, hand washing hygiene, and remaining socially distant while leaving the house should be taken seriously. Everyone should be vaccinated. In this unprecedented time, events are unfolding rapidly, and hence, all dental practitioners should be abreast with the latest news and guidelines in accordance with the regulatory bodies and IPAC protocol. During the epidemic, patients should follow infection control measures more diligently. It is critical to enhance hospital protective measures during the COVID-19 pandemic in order to minimise the impact on the outpatient department.

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