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# Knowledge, Attitude and Practice towards Covid-19 Prevention and Precaution among Non-Teaching Faculty in a Private Dental Institution

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## Abstract

**Background:** The society must routinely practice precautionary measures and precautions to control the spread of Coronavirus, as no vaccines and antiviral treatments are currently available. This study examines non-teaching faculties knowledge, attitude and practice (KAP) related to COVID-19, their relationships and identified the pandemics vulnerable population inorder to provide recommendations for policies and behavioural interventions.

**Materials and methods:** A total of 90 non-teaching staff from a private dental institution participated in this study. A self-administered, 12 item questionnaire was circulated among the non-teaching staff. Only completely filled forms were taken into account for analysis by using SPSS software version 23 with Pearson Chi square test method.

**Results:** The final analysis was done using responses from 89 non-teaching faculties. On the whole, knowledge regarding COVID-19 was found to be moderate among these no-teaching staff.

**Conclusion:** This study shows a baseline knowledge regarding this pandemic. Even though the participants had fair knowledge, their attitude towards answering the questions was good.

**Key words:** Covid-19 • Knowledge • Attitude • Practice • Non-Teaching Faculty • Innovative Analysis • Innovative Technique

## Introduction

Coronavirus, which formed in the year 2019 is accounted for as emerging respiratory syndrome and it was first detected in December 2019 in Wuhan, China. Empirical clinical data which was recorded overall was 2-3% in China which was lower than Severe Acute Respiratory Syndrome which was approximately 9.5% [1]. In response to this serious situation, the World Health Organization (WHO) has declared it as a public health emergency and called for collaborative effects of all countries to prevent this virus [2].

The knowledge of participants regarding these symptoms and prevention was good with the mean score of 21.26 in India [3]. Overall knowledge, attitude and practice scores were significantly less among participants who are above the age of 50. The number of infected people is still on the rise when the government uplifted restriction measures regarding restaurants, bars, etc. Several cases confirmed later amounting to 8681 cases, where 4836 recovered and 212 died [4]. Most importantly the awareness of the status of public health for preventive measures which is recommended by health authorities regarding pandemic control [5]. Special attention dedicated to patients suffering from cancer, whose immune system is compromised either due to treatment or disease itself [6]. As such many health care systems have been overwhelmed with depression and anxiety [7]. There is a potential shortage in physical resources, such as ventilators, needed to care for surges of critical ill patients [8]. Primary measures that have been advocated include social distancing, regular hand washing and respiratory hygiene [9].

Over 100 health workers have lost their lives to COVID-19, which is a big tragedy to the world and a barrier to fight against the disease [10]. Our team has extensive knowledge and research experience that has translate into high quality publications [11-30]. However, this study is concerned with non-teaching staff in private dental institutions where the knowledge, attitude and practices have not yet been explored. The main aim of this study is to educate the non-teaching staff regarding Coronavirus.

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## Methods and Material

### Study design

A cross sectional questionnaire survey.

### Study setting

A private dental institution.

### Sample size

89 non-teaching faculties of the private dental institution.

### Sampling and scheduling

Owing to this nature of study design and setting, a convincing sampling method was used. The data was collected over a time period of one month.

### Survey instrument

A pre-tested and validated questionnaire was used to measure the baseline knowledge, attitude and practice regarding the pandemic and alternative therapies for the same.

### Inclusion and exclusion criteria

All those who were willing to participate were included in this study. Those who were not willing and those who had a language barrier in answering the English version of the questionnaire were excluded from the study.

### Ethical clearance

Prior to the start of this study, ethical clearance was obtained from the institutional ethical committee of Saveetha university.

### Statistical analysis

The responses from the google sheets was transferred to excel and were then exported to SPSS software (version 23). Descriptive statistics was done using frequency and percentage. Inferential statistics was done using Chi square test. Interpretation was based on $p<0.05$, which was considered statistically significant. Comparisons were done between independent variables like age, gender and attitude practice responses by the participants.

## Results

A total number of 90 non-teaching faculty members participated in this study from a private dental institution. Out of these faculties, 68.2% are females and 31.8% are males. The majority of them are in the age group of 25-35 years.

Out of all the participants, 80.9% people have the knowledge on route of transmission of covid and only 41.6% wear masks and use hand sanitizers as well as in travelling case, only 11.2% of the participants didn't travel due to safety measures while 48.9% of the faculties were in close contact with affected individuals and nearly 76.4% avoided crowded places and public transportation which denotes their awareness of COVID-19 precautions.

32.6% of the faculties weren't conscious of the trajectory of COVID infected people. Except for 20.2% of them, the rest 79.8% were aware of the COVID-19 centres in their locality. 51.7% take balanced nutrition diet and home remedies to prevent COVID-19 while only 46.1% pay attention to government reports on the pandemic and nearly 50.6% of them didn't carry out self-preventive measures due to their impacts on their work and daily life which represents the lack of self-protection methods against COVID-19 (Figures 1 to Figure 6).

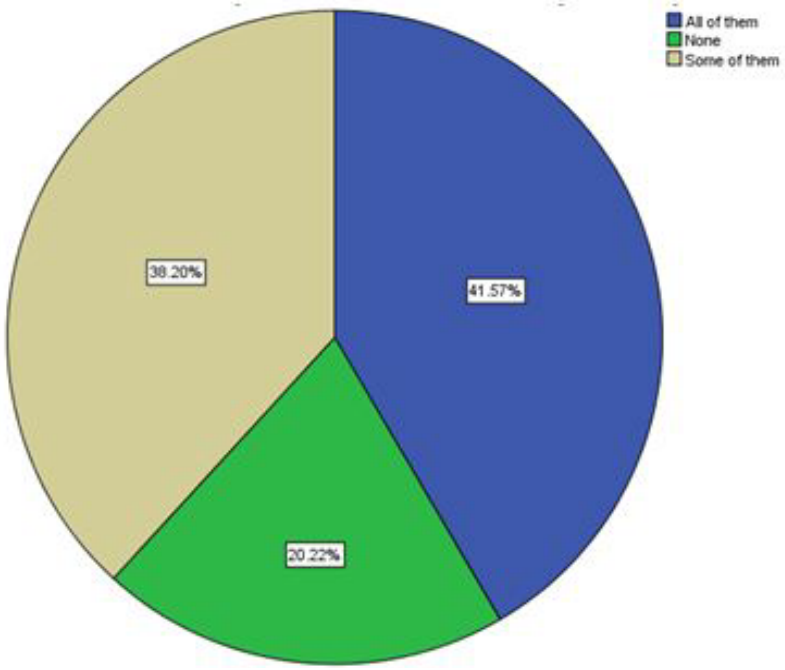


**Figure 1.** The pie chart represents the percentage of participants who have the knowledge of COVID centres in their locality. Blue colour denotes all of them, Green denotes none of them and Brown denotes some of them. Majority of the participants knew all COVID centres near their locality with a percentage of 41.57%.

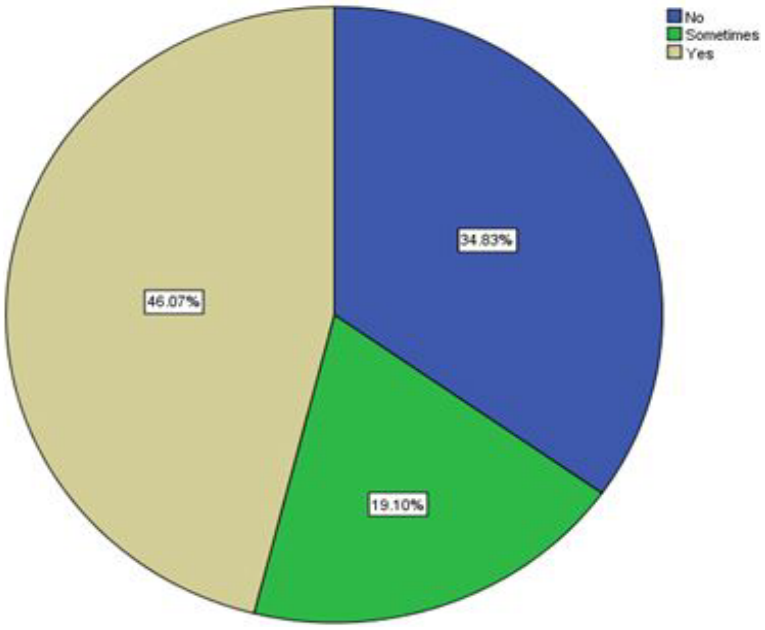


**Figure 2.** The pie chart denotes the percentage of participants' interest in paying close attention to Government reports on pandemic. Blue colour denotes no, Green colour denotes sometimes and Brown colour denotes yes. Only 46.07% of people pay close attention to Government reports regarding the pandemic.

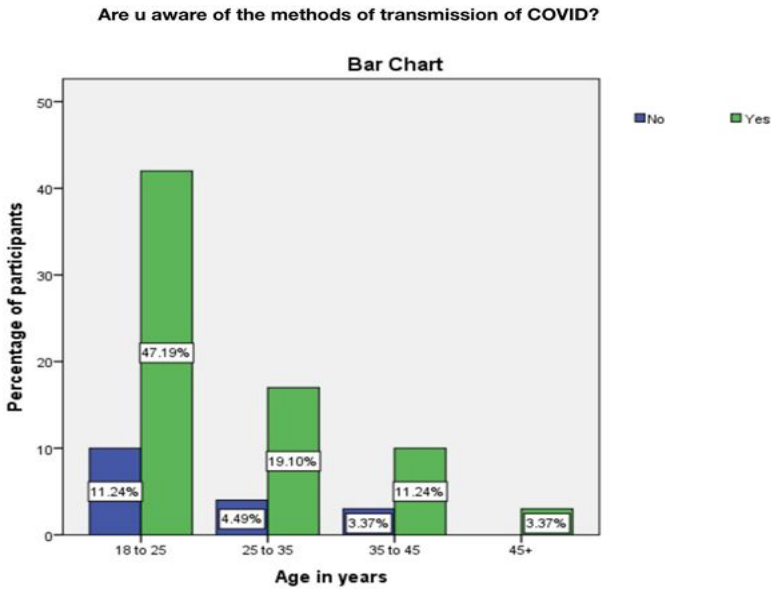


**Figure 3.** The bar graph depicts the association between age and the knowledge of the transmission of coronavirus. X axis denotes age groups and Y axis denotes percentage of responses. Blue denotes no and Green denotes yes. Pearson Chi square test shows p value is 0.839 (>0.05), which is statistically not significant.

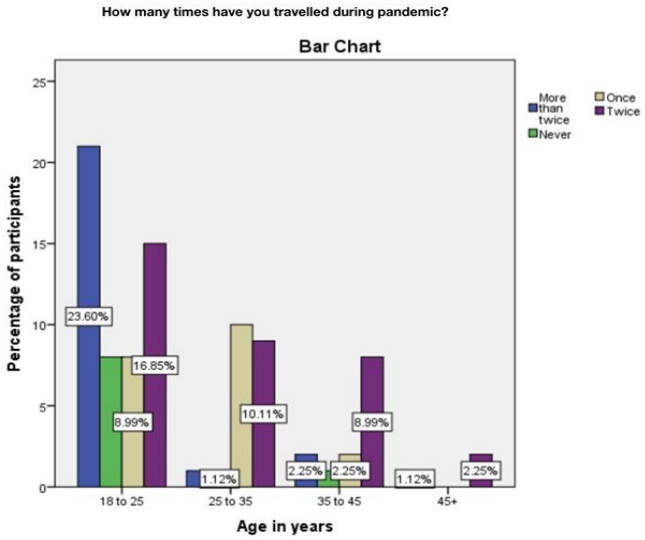


**Figure 4.** The bar graph depicts the association between age and the number of times travelled during pandemic. X axis denotes age groups and Y axis denotes percentage of responses. Blue denotes more than twice and Green denotes never, Sandal denotes once and Purple denotes twice. Pearson Chi square test shows p value is 0.010 (>0.05), which is statistically not significant.

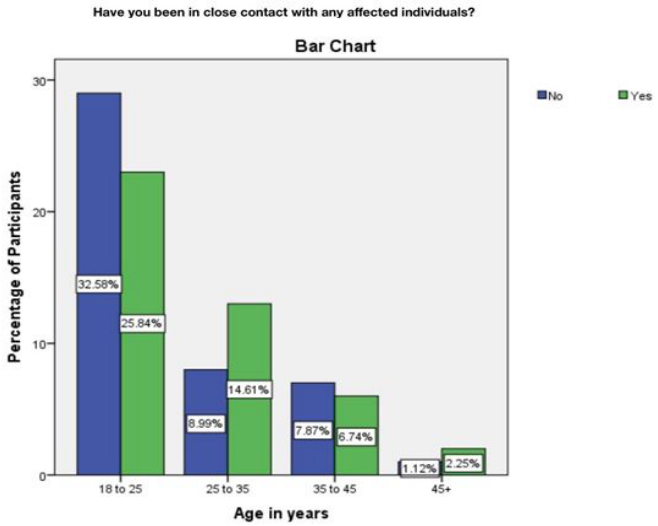


**Figure 5.** The bar graph depicts the association between age of participants and their willingness to be in close contact with any affected individual. X axis denotes age groups and Y axis denotes percentage of responses. Blue denotes no and Green denotes yes. Pearson Chi square test shows p value is 0.516 (>0.05), which is statistically not significant.

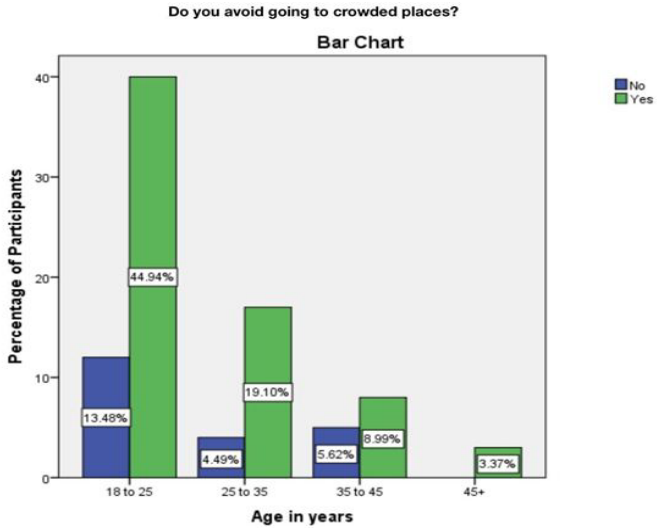


**Figure 6.** The bar graph depicts the association between age and the interest of avoiding crowded places. X axis denotes age groups and Y axis denotes percentage of responses. Blue denotes no, Green denotes yes. Pearson Chi square test shows p value is 0.429 (>0.05), which is statistically not significant.

## Discussion

COVID-19 is a relatively new virus that has had devastating effects within the short time since it was first detected in December 2019. This study explored the background of COVID 19 and the evaluation of the knowledge of this drastic pandemic causing virus among non-teaching staff in a private dental college. In addition, this study explored and spread awareness of COVID 19 among the general public. Besides this, the level of knowledge about the preventive measures of COVID 19 among them was assessed.

In this present study, females were more in number than males. So, it would be prudent to generalise and represent the common population masses. In this drastically developing environment, we can observe by the help of this survey that nearly half (41.6%) of the participants knew hand washing methods, social distancing measures which concludes that there is a lack of knowledge of COVID 19 measures. These findings were different to that of other findings (92.7%) done by researchers [31]. Nearly 76.4% avoided crowded places and public transportation as an awareness of COVID-19 precautions which reconciles with other researchers' results (85.7%) [32].

80.9% of the participants knew about the transmission route of COVID 19. Several studies conducted in Asian countries have indicated high (83.6%) knowledge levels of COVID-19 among the general population which is similar to our findings [33]. The findings of our study tells us the importance of educating non-teaching faculties about Coronavirus transmission and also the preventive measures that play a vital role in their protection from getting infected with the disease and which dramatically reduce the spread of the disease, while comparing with the previous study, people who knew about the route of transmission was 78.3% where people are more aware of COVID-19 transmission in this study than previous study [34].

This study has several limitations. First and foremost, given that participants are in low numbers, this case study was taken for non-teaching faculties in a private dental college. Third, the majority of the participants have partial knowledge on the topic and the answers they gave were in random manner to some of the questions. The survey tool used in this study also helps in improving the existing knowledge and to resolve any misconception laid among the public regarding COVID-19. In future, this study can be elaborate with a large sample size and with the general population. Though it is a pilot questionnaire study, this article can be used for its data as a reference for further studies related to this topic.

## Conclusion

This study revealed the knowledge of non-teaching staff in a private dental institution about COVID-19. The findings suggest that there is a need for effective health education programmes to spread awareness among the public, thereby leading a healthy life without any fear of pathogens.

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## Conflict of Interest

All the authors declare that there was no conflict of interest in the present study.

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