

## **Covid-19 infection and smoking- Awareness survey among smokers**

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**Dr. Amit Singh**

Saveetha Dental College and Hospitals Saveetha Institute of Medical and Technical Sciences (SIMATS) Saveetha University, Chennai, Tamil Nadu, India.

[Email-151701056.sdc@saveetha.com](mailto:Email-151701056.sdc@saveetha.com)

**Dr. L.Leelavathi,**

Reader, Department of Public Health dentistry. Saveetha Dental College and Hospitals,

Saveetha Institute of Medical and Technical Sciences(SIMATS), Saveetha University,

Chennai-600077,TamilNadu,India.

E.mail:[karleela81@gmail.com](mailto:karleela81@gmail.com)

**Dr. Lalitha Rani Chellappa**

Senior Lecturer Department of Public Health dentistry. Saveetha Dental College and Hospitals,

Saveetha Institute of Medical and Technical Sciences(SIMATS), Saveetha University,

Chennai-600077,TamilNadu,India.

E.mail: [lalitharanibds28@gmail.com](mailto:lalitharanibds28@gmail.com)

**Corresponding author**

**L.Leelavathi,**

Reader, Department of Public Health dentistry. Saveetha Dental College and Hospitals,

Saveetha Institute of Medical and Technical Sciences(SIMATS), Saveetha University,

Chennai-600077,TamilNadu,India.

E.mail:[karleela81@gmail.com](mailto:karleela81@gmail.com)

**ABSTRACT:**

Background and Aim: Despite reductions in prevalence in recent years, tobacco smoking remains one of the main preventable causes of ill-health and premature death worldwide. This paper reviews the extent and nature of harms caused by smoking, the benefits of stopping, patterns of smoking, psychological, pharmacological and social factors that contribute to uptake and maintenance of smoking, the effectiveness of population and individual level interventions aimed at combating tobacco smoking, and the effectiveness of methods used to reduce the harm caused by continued use of tobacco or nicotine in some form. Therefore, this study aims to create awareness of Covid-19 infections and smoking among the smoker's population.

Material and Methods: This was a survey-based and conducted on an online form, google form. It was taken by 100 participants with smoking habits. The questionnaire was framed to evaluate the idea and knowledge on the impact of smoking on covid 19 infections.

Results: The total sample size of the current study was 100 participants with smoking habits. In this survey, among the participants, 59% were negative for covid 19 infections and 41% were positive for covid 19 infections. 36% of the study population were the 36-55 years old age group, followed by 18-35 years with 34% and above 56 years with 30%. The majority of consumption of cigarettes in the age group 36-55 years and numbers of cigarettes were higher in the age group above 55 years. The majority of the responses from the age group 36-55 years, Age group 36-55 years were responded no for the question asked as they think recovery time may vary for smokers from COVID 19 infection.

Conclusion: Within the limit of this it is seen that the participants were aware of the effect of smoking on covid 19 infections.

**KEYWORDS:** Anti-tobacco, smoking, psychological, pharmacological, innovative analysis

**INTRODUCTION:**

The continued popularity of tobacco smoking appears to defy rational explanations (1). Smokers mostly acknowledge the harm they are doing to themselves and many reports that they do not enjoy it – yet they continue to smoke(2). The reason is that nicotine from cigarettes generates strong urges to smoke that undermine and overwhelm concerns about the negative consequences of smoking, and the resolve not to smoke in those trying to stop(3). Progress is being made in many countries in reducing smoking prevalence but it remains one of the main causes of ill health and premature death worldwide(4).

Tobacco smoking consists of drawing into the mouth, and usually, the lungs, smoke from burning tobacco(5). The type of product smoked is most commonly cigarettes, but can also include cigarillos, cigars, pipes or water pipes. 'Smokeless' tobacco is also popular in some parts of the world(6). This typically involves using tobacco preparations for chewing, sniffing into the

nose or placing a wad in the mouth between the cheeks and gums(7). Smokeless tobacco use has features that are similar to smoking and can carry significant health risks however, this article focuses on smoked tobacco only as this has been the subject of by far the largest volume of research and is the most harmful form of tobacco use(8).

Stopping smoking usually involves an intention not to smoke any more cigarettes from a given point in time (a 'quit attempt'), followed by self-conscious resistance of urges to smoke resulting in a period of abstinence(9). If someone making a quit attempt smokes one or more cigarettes on an occasion but then resumes abstinence, this is usually termed a 'lapse'. If this person resumes smoking on a regular basis s/he is said to have 'relapsed'. 'Short-term abstinence' is commonly defined in terms of achieving up to 4 weeks of abstinence(10). 'Long-term abstinence' often refers to abstinence for at least 6 months but more typically involves abstinence for at least 12 months. There is no agreed criterion for deciding when someone has 'stopped smoking' so it is essential when using the term to be clear about how long the abstinence period is(11).

Tobacco smoking increases the risk of contracting a wide range of diseases, many of which are fatal(12). Stopping smoking at any age is beneficial compared with continuing to smoke. For some diseases, the risk can be reversed while for others the risk is approximately frozen at the point when smoking stopped(13).

Tobacco smoking is estimated to lead to the premature death of approximately 6 million people worldwide and 96,000 in the UK each year (Action on Smoking and Health, [2016b](#); World Health Organization, [2013](#))(14). A 'premature death from smoking' is defined as a death from a smoking-related disease in an individual who would otherwise have died later from another cause. On average, these premature deaths involve 10 years of life years lost (US Department of Health and Human Services, [2004](#)). Many of these deaths occur in people who have stopped smoking but whose health has already been harmed by smoking. It also happens to be the case that smokers who do not stop smoking lose an average of 10 years of life expectancy compared with never-smokers and they start to suffer diseases of old age around 10 years earlier than non-smokers.

Coronavirus disease 2019 (COVID-19), which is caused by severe acute respiratory syndrome coronavirus 2 (SAR2-COV-2), was first identified in Wuhan, China, in December of 2019(15). It has subsequently spread across the world, causing a global pandemic. This highly contagious disease has thus far infected 23.4 million people worldwide and killed approximately 808000 patients, yielding a case fatality rate (CFR) that varies between 0.7 and 12.7%.COVID-19 primarily targets lung epithelial cells, causing viral pneumonia and acute respiratory distress syndrome (ARDS), especially in elderly patients. Therefore, mortality is higher in the elderly and in patients with at least one accompanying comorbid disease. In the last report issued by the

Centers for Disease Control and Prevention Institute, the incidence of respiratory disease was 9.2% in patients diagnosed with a severe COVID-19 clinical course. Chronic obstructive pulmonary disease (COPD) and asthma are also common comorbidities in severe cases and are reported in 10.8% and 17.0%, respectively, of hospitalized patients aged  $\geq 18$  years with COVID-19(16). However, it has been reported that COVID-19 progresses more severely in COPD patients. Given that smoking plays an important role in the etiopathogenesis of COPD, it may have a similar effect on symptoms. In a recent meta-analysis of smoking and COVID-19 severity, smoking was found to not increase the severity of COVID-19 (odds ratio [OR], 1.69; 95% CI: 0.41-6.92). Our team has extensive knowledge and research experience that has translated into high-quality publications(17–25),(26),(27),(28,29),(30),(31),(32–36) Therefore the aim of the study was to create awareness about Covid-19 infection and its effect on smoking.

## **MATERIALS & METHODS**

### **Study design**

The survey was conducted among a sample of 100 participants. An interviewer-administered questionnaire was provided to the participants.

### **Data collection**

A structured questionnaire was prepared and the questionnaire consisted of 10 close-ended questions assessing the participant's knowledge and awareness of tobacco smoking and COVID-19. It also included socio-demographic information such as age, level of education, testing for COVID-19 infection, and habits.

### **Questions and variables:**

The first section of the questionnaire comprised two questions about socio-demographic information. The second section consisted of 8 questions assessing the participant's knowledge and awareness of tobacco smoking and COVID-19. Response categories for each of the questions were yes=1, no=2. Participants were instructed to give only the most appropriate answer.

### **Data analysis**

The data were collected and analysis was done using SPSS software by IBM. Statistics analysis of this study is described in terms of percentage and association of knowledge and attitude towards plagiarism was done using Chi-square test.

## **RESULTS AND DISCUSSION:**

	Question		Responses
1.	Age	18-35years	34%

		36-55years Above 56 years	36% 30%
2.	Education	Illiterate Primary Education Secondary Education Graduate	30% 22% 22% 26%
3.	How many cigarettes/bidi/other tobacco is used per day.	0-5 times 5-10 times More than 10 times	40% 30% 30%
4.	Do think smokers are more prone to get Covid 19 infections	Yes No	57% 43%
5.	Do you think recovery time may vary for smokers from covid 19 infections	Yes No	51% 49%
6.	Did you ever undergo antitobacco counselling	Yes No	68% 32%
7.	Do you think smokers are more prone to respiratory disease	Yes No	70% 30%
8.	Have you ever attempted to quit smoking before covid 19 pandemic	Yes No	44% 56%
9.	Have you ever attempted to quit smoking after covid 19 pandemic	Yes No	60% 40%
10.	Do you smoke even if you ill?	Yes No	52% 48%

Percentage distribution of the population revealed that 34.0% were of the age group of 18-35 years followed by 36-55 years age group with 36%, above 56 years with 30%.

About 30% of the population were illiterate, 26% Of the population were graduates, primary education and secondary education each, 22% of the population. About 52% of the participants reported smoking even if they are not well. About 59% of the participants were tested positive for covid 19 infections.

It was found that 52% of participants smoke even if they are ill or not well followed by 48% of participants who choose not to smoke when they are ill.

In this study majority of the participants showed a positive response that smokers are more prone to get covid 19 infections. A study done by Zhou et al states that populations with smoking habits are more prone to covid infection(37). Another study done by Zhang et al noted that patients with a history of smoking habits are easily affected with covid 19 infections and that leads to more severe conditions(38). Smoking mainly affects the respiratory system and covid 19 infections are also related to the respiratory system because of that also many peoples think that smokers are more susceptible to get a covid infection.

In our study, the majority of consumption of cigarettes in the age group 36-55 years and numbers of cigarettes were higher in the age group above 55 years. A supportive study was done by Mcconnell R et a., which state that cigarette cusmution was high in young adults as they are a shift from adolescence to early adulthood they start under peer pressures. They also state that in their study that there is also a change in lifestyle in their early adulthood.

In addition, a recent study revealed that active smokers are at higher risk of mortality and serious complications(39).In the current study, it was found that the majority of the participants think that there is a difference in recovery time among smokers and non-smokers. They think that smokers recovery time is late as compare to a healthy population. There is growing evidence to support WHO's statements that smokers are at a higher risk of developing severe COVID-19 and consequent death(40).

Future studies should continue to collect nicotine consumption information, including the number of cigarettes smoked per day, passive exposure, and degree of COPD, and should evaluate the dynamics of interactions between cigarette smoking and COVID-19.

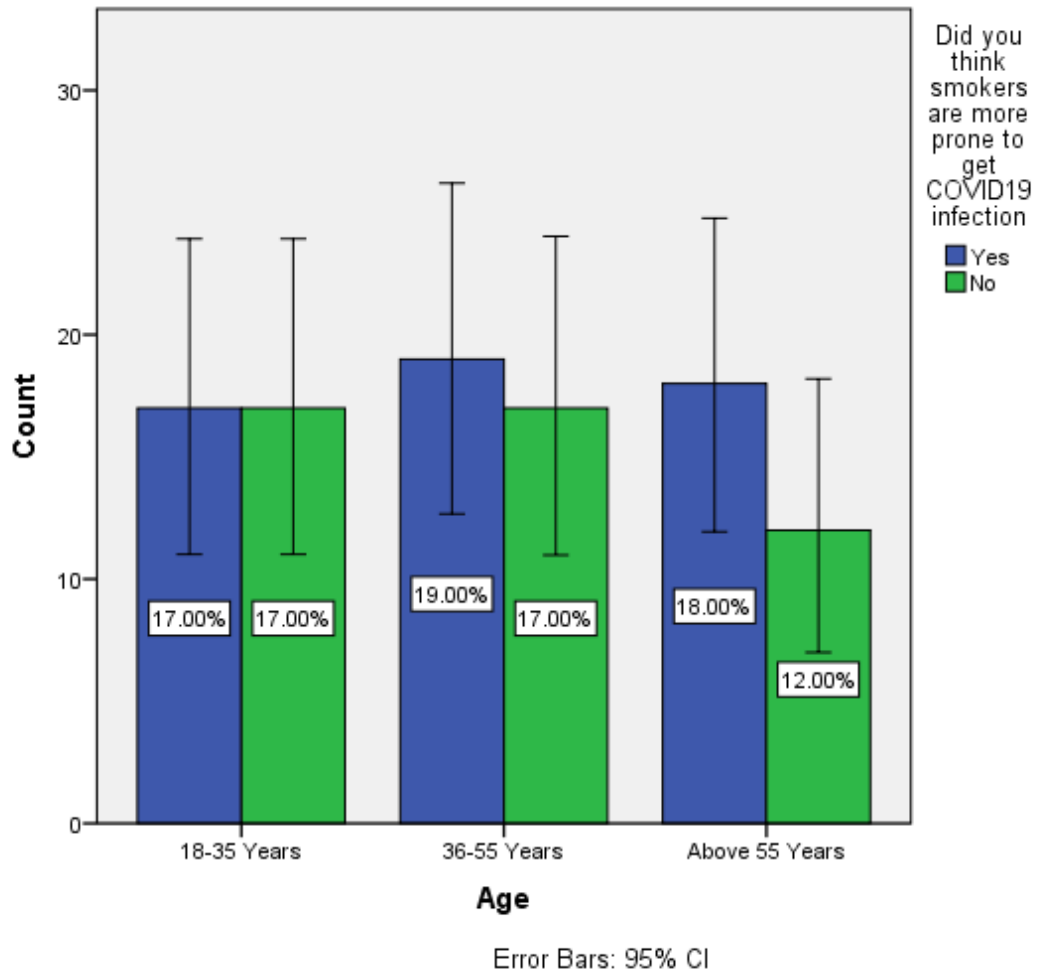


Figure 1: Bar graph represents the association of Age and the response to the question “Do you think smokers are more prone to get Covid 19 infection?” The x-axis represents the age range and the y-axis represents the responses. The blue colour represents participants who responded yes, green colour who responded no. Majority of the 36-55 Years showed a positive response followed by the age range above 55 years. (Chi square test - p value=0.715> 0.05, insignificant).

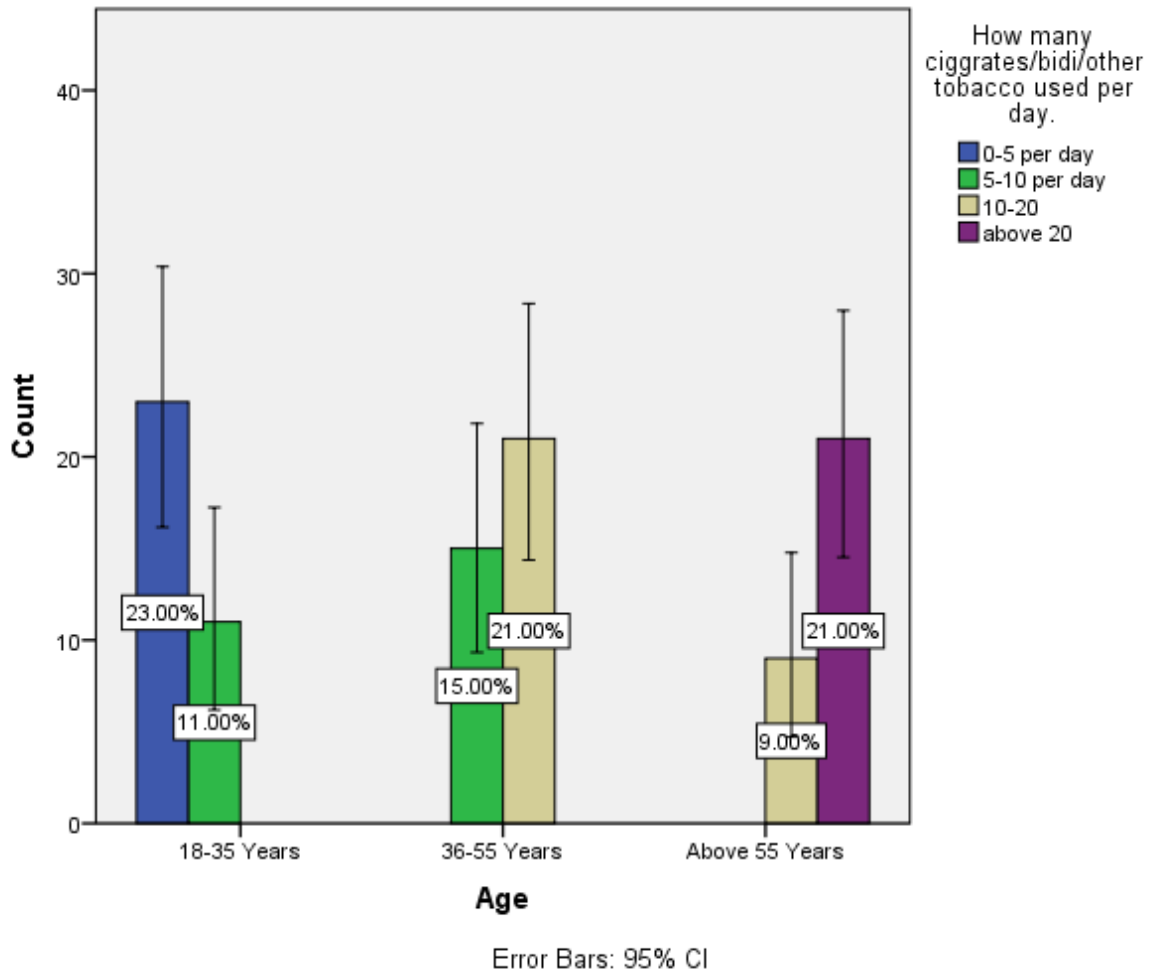


Figure 2: Bar graph represents the association of Age and the response to the question “How many cigarettes/bidi/other tobacco used per day?” The x-axis represents the Age range and the y-axis represents the responses. The blue colour represents participants who had 0-5 cigarettes per day, green colour represents who had 5-10 cigarettes per day, beige colour denotes 10-20 cigarettes per day and purple colour denotes above 20 cigarettes per day. Majority of consumption of cigarettes in the age group 36-55 years and numbers of cigarettes were higher in the age group above 55 years. (Chi square test - p value=0.000< 0.05, highly significant).



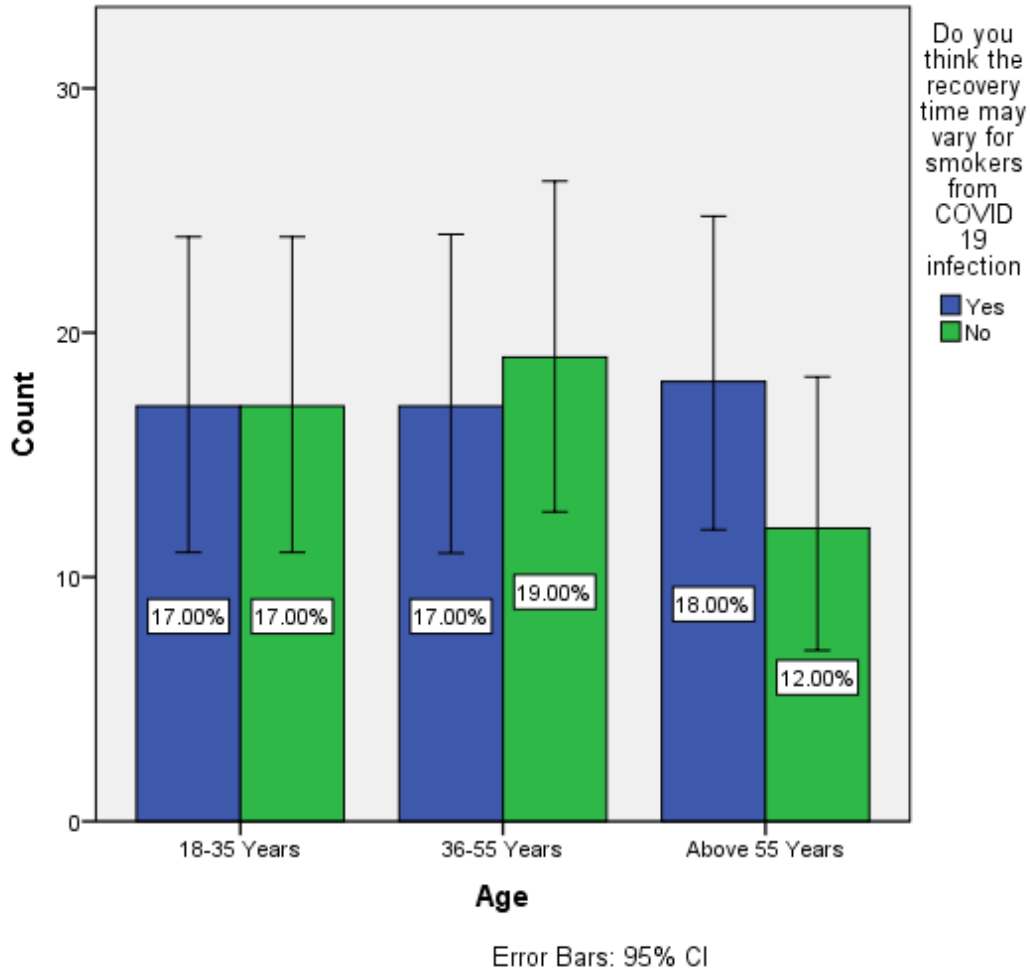


Figure 3: Bar graph represents the association of Age range and “Do you think the recovery time may vary for smokers from covid 19 infection?” The x-axis represents the question Do you think the recovery time may vary for smokers from covid 19 infection and the y-axis represents the responses. The blue colour represents participants who responded yes, green colour who responded no. Majority of the responses from the age group 36-55 years, Age group 36-55 years were responded no for the question asked as they think recovery time may vary for smokers from COVID 19 infection. (Chi square test - p value=0.795 > 0.05, insignificant).

### **CONCLUSION:**

Tobacco smoking causes death and disability on a huge scale and only about half of smokers report enjoying it. This research examined the impact of the Covid-19 infection on smokers. Within the limit of this it is seen that the participants were aware about the effect of smoking on covid 19 infections. The effect of current smoking on SARS-CoV-2 infection is a delicate and complex topic that should be addressed meticulously before delivering messages that could be misinterpreted.

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### **CONFLICT OF INTEREST :**

There were no conflicts of interest as declared by the authors.

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