Study Of Tobacco Cessation In Young Adult (17-45 Years) Population Of Urban Slum Of Okhla (South Delhi)- A Cross Sectional Study

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Abstract:

Background: Tobacco is a leading preventable cause of death, killing nearly six million people worldwide each year. Reversing this entirely preventable manmade epidemic should be our top priority. Aims: This study aims to access knowledge, attitude, and awareness about Tobacco cessation in the Young Adult Population. Settings and Design: This research design is a Cross-Sectional Study, Qualitative and quantitative to evaluate tobacco cessation in the young adult (17-45 years) population in the urban area of Okhla, South East Delhi, New Delhi.

Need of The Study: In this study, a novel approach to Tobacco cessation is considered, in that, emphasis is laid on the importance of knowledge, attitude and awareness towards tobacco cessation and reasons of the failure to quit tobacco.

Methods and Materials: This is a cross-sectional study; Data was collected using a semi-structured questionnaire. Randomly selected 400 young adults were interviewed, data analysis was done using SPSS Statistical Software Packages for Social Sciences Software and the result was formulated by applying descriptive frequencies for categorical variables, Chi-square test, and Fisher's exact test.

Results: The results indicate that the young adult population is age, gender, marital status, income group, and family size a factor that does not determine whether a person is a consumer of tobacco or not in whichever way. Whereas educational qualification does as a factor responsible for the level of knowledge about the harmful effect of tobacco and the number of quit attempts.

Conclusions: This study determines that 100% of the population is not aware of the adverse effect of tobacco usage and it also interferes that there is a large number of the population trying to quit tobacco and many of them failed to do it because of the one or the other reasons, suggesting that there is a need to develop government facilitated programs for tobacco cessation.

Keywords: Tobacco, Cessation, Cigarette, willingness for tobacco cessation.

I. INTRODUCTION

Tobacco is a leading preventable cause of death, killing nearly six million people worldwide each year. Reversing this entirely preventable manmade epidemic should be our top priority. This global tobacco epidemic kills more people than tuberculosis, HIV/AIDS, and malaria combined. India is the second largest consumer of tobacco globally and accounts for approximately one-sixth of the world's tobacco-related deaths. The tobacco problem in India is peculiar, with the consumption of a variety of smokeless and smoking forms. Public health awareness, raising a mass movement against tobacco, sensitizing and educating all health care

professionals for tobacco control and cessation by incorporating the topic into the medical undergraduate curriculum, nursing curriculum, various CMEs, conferences, scientific meetings, workshops, etc. is vital. Eventually, if all healthcare professionals participate in tobacco control and cessation, it will have a huge impact. Expansion of TCCs to the periphery to reach the community, making them more accessible and widely acceptable, will facilitate millions of current tobacco users to quit the habit[1].

Smoking is a leading cause of cardiovascular disease (CVD), particularly coronary heart disease (CHD). However, quitting smoking may prevent secondary CVD events in people already diagnosed with CHD. Smoking cessation was associated with a decreased risk of CVD death as compared with continuous smoking. There is moderate-certainty evidence that smoking cessation is associated with a reduction of approximately one-third in the risk of recurrent cardiovascular disease in people who stop smoking at diagnosis. This association may be causal, based on the link between smoking cessation and restoration of endothelial and platelet function, where dysfunction of both can result in an increased likelihood of CVD events. The Result of the study "Smoking cessation for secondary prevention of cardiovascular disease" provide evidence that there is a decreased risk of secondary CVD events in those who quit smoking compared with those who continue, and that there is a suggested improvement in quality of life as a result of quitting smoking. Additional studies that account for confounding, such as the use of secondary CVD prevention medication, would strengthen the evidence in this area[4].

The economic costs of tobacco use amount to approximately 1.04% of India's gross domestic product (GDP), while the excise tax revenue from tobacco in the previous year was only 12.2% of its economic costs. The direct medical costs alone amount to 5.3% of total health expenditure. The enormous costs imposed on the nation's health care system due to tobacco use could potentially stress the public health care system and strain the economy and it warrants massive scaling up of tobacco control efforts in India6. In 2020, 22.3% of the global population used tobacco, 36.7% of all men, and 7.8% of the world's women[9].

The rapid rise in smoking in many developing countries will have devastating consequences; by 2030 the developing world is expected to have 7 million deaths annually from tobacco use. Many smokers express a desire to quit, but they often fail because they are addicted to tobacco. Although several cessation aids are now available in the developed world, their applicability and affordability in developing countries are less clear. Successful interventions will require many stakeholder groups to take action at the local, national, and international levels. We discuss smoking cessation as a means of reducing disease burden, examine factors that may limit the promotion of smoking cessation in developing countries, and propose a framework for public health action[2]. Tobacco control efforts should be convergent with public health nutrition to achieve overall health benefits. Attention is also required to explore suitable mechanisms for SLT cessation combined with enhancing food and nutrition security at the community level in sync with investments in public health nutrition intervention**[3]**. Restrictions and correct knowledge of the harmful effects of tobacco use and COVID-19 can play an important role in creating a conducive environment for tobacco cessation among users[7].

Need of the study:

This research is an effort to contribute to the restructuring and reinventing the concept of Tobacco cessation among Young adult population. In this study, a novel approach to Tobacco cessation is considered, in that, emphasis is laid on the importance of knowledge, attitude and awareness towards tobacco cessation and reasons of the failure to quit tobacco. Specifically, the study focuses on the importance of motivation and awareness about government program of tobacco cessation, which is required to quit tobacco which the researcher considers is the need of the hour in the present scenario.

II. MATERIALS AND METHODS

Study design and duration:

A cross-sectional study was conducted from April 4 to September 20, 2022 in urban area of Okhla, South East Delhi, New Delhi.

Study Site:

It is at the locality of Okhla Industrial Area falls in South East Delhi district situated in NCT of Delhi state.

Ethical issues:

This research involves human subjects; hence the ethical approval will be taken from the Institutional Ethical Committee. The study was approved by Delhi Pharmaceutical Sciences and Research University-Biomedical Research Human Ethics Committee (DPSRU-BREC). The approval ID is **DPSRU-BREC/2022/A/053**. Written informed consent was taken from each participant. All the personal information collected will be kept anonymous and confidential. Before Data collection a consent form was filled and signed by participants for their willingness to be a part of study.

Study tool:

A pretested, valid and reliable semi-structured questionnaire used for data-collection. Data entered using excel format. The data was cleaned and coded before analysis. Descriptive analysis was done using SPSS software.

Descriptive statistics was used in this study to calculate various variables. The analysis was done under following components; Socio-Demographic profile of the respondents, Description of Tobacco consumption type, Knowledge and attitude about tobacco consumption and Awareness and problems related to tobacco cessation.

Sampling Method:

Sampling technique is Systematic-random sampling. Sample size refers to the number of participants or observations included in a study. This number is usually represented by n. Participants in this study included 400 from Delhi belonging to the age group of 17-45. All of them at least used tobacco in any form or the other on an average every day.

Calculation of Sample Size:

We calculated the sample size using the Slovin's formula. $n = N / (1 + Ne2)$

Where; n = Sample size, e = Margin of error = 5% = 0.05

Using Slovin's Formula

$n = N / (1 + N e2) = 166836/ (1+ 166836*\{0.05\} \{0.05\}) = 399.043268 \sim 400$

Therefore, we obtain a sample size of 400.
We will sample 400 Participants from urban area of Okhla.

Sampling Criteria:

Inclusion criteria: Houses with young adult (17-45) years, Parents, young adults as the respondents. All the young adult (17-45) years of age who are living in urban slum of Okhla, New Delhi.

Exclusion criteria: Young adult people who were seriously ill, too agitated &unwilling for questions were excluded from the study. Young adults who are not tobacco users.

Categorizing Young Adult Population:

Perhaps the best-known stage theory of adult development is that offered by Daniel Levinson. According to Levinson, the ages of 17 to 45 encompass early adulthood, which he divides into the novice phase (17–33) and the culminating phase (33–45). Levinson further divides the novice phase into the stages of early adult transition (17–22), entering the adult world (22–28), and age-30 transition (28–33). The culminating phase (33–45) consists of the settling down (33–40) and midlife transition (40–45) stages [10].

Data Collection:

A pretested, valid, and reliable semi-structured questionnaire was used for data collection. Data was entered using excel format. The data was cleaned and coded before analysis. The study was conducted by random data collection. Participants in this study were 384-400 young adults who smoked or consumed tobacco in any form. All participants in this study are aged 17-45. 100 percent of the participants resided in the urban area of Okhla, South East Delhi. Participants were included in this study only after completing a smoking/tobacco history controlled questionnaire.

Data Analysis:

All data were coded and placed into a Microsoft Excel sheet, which was then double-checked and analyzed with the Statistical Package for Social Sciences (SPSS) version 26. Descriptive statistics were expressed as a percentage. Descriptive statistics were used in this study to calculate various variables. The analysis was done under the following components;

- Socio-Demographic profile of the respondents.
- Description of Tobacco consumption type.
- Knowledge and attitude about tobacco consumption.
- Awareness and problems related to tobacco cessation.

The data were analyzed using statistical software packages for social sciences (IBM SPSS). Frequencies, proportions, and percentages were calculated for categorical variables, and data was presented in the form of pie charts, bar graphs, donut charts, etc. Comparison between categorical variables was done using the Chi-Square test and Fisher's exact test. The Chi-square test was used to find out the associations among variables, Fishers Exact Test was used in cases where no. of cells less than 5 was other than 0.

III. RESULTS:

The result was obtained by the data analysis using statistical software packages for social sciences (IBM SPSS).

The results depict that as in **Table: 1** we can see that in the Chi-Square test p-value is >0.05 that's why we interpretative that age, education, and income group do not pose any relationship with tobacco consumption. In **Table: 2** we can see that in Chi-Square Test, and Fishers Test, the p-value is <0.05 that's why we interpretative that age and education possess a significant relationship with tobacco cessation and its quit attempts. In **Table: 3** and **Table: 4** we can see that in the Chi-Square Test, the p-value is>0.05 for the cross-tabulation of age and awareness about tobacco cessation and <0.05 for cross-tabulation with education and awareness about tobacco cessation that's why we interpretative that age doesn't possess any relationship with awareness but education possess a significant relationship with awareness about tobacco cessation and its quit attempts

The results indicate that the young adult population's age, gender, marital status, income group, and family size as a factor do not determine whether a person is a consumer of tobacco or not in whichever way. Whereas educational qualification does as a factor is responsible for the level of knowledge about the harmful effect of tobacco and the number of quit attempts.

The present study aimed to conduct among the young adult population of age 17-45 years in the urban area of Okhla in South East Delhi. A total of 400 participants of (17-45) years of age were randomly selected for the study after fulfilling the inclusion criteria. To achieve the purpose of the study keeping in mind the main objective, several alternate and null hypotheses were formulated whereas alternate hypotheses implies a direct relation between sociodemographic status and tobacco consumption and null hypotheses rejects this idea of direct relationship between different variables and tobacco consumption habits. A self-administered survey-based questionnaire was formulated and used for data collection. Several statistical tests were applied and used for data analyses using SPSS software to test the alternate and null hypotheses. This chapter highlights the main findings under each hypothesis of the study.

This research is an effort to contribute to the restructuring and reinventing of the concept of Tobacco cessation among the Young adult population. In this study, a novel approach to Tobacco cessation is considered, in that, emphasis is laid on the importance of knowledge, attitude, and awareness towards tobacco cessation and reasons for the failure to quit tobacco. Specifically, the study focuses on the importance of motivation and awareness about the government program of tobacco cessation, which is required to quit tobacco which the researcher considers to be the need of the hour in the present scenario. The study population Socio-Demographic and Socio-Economic Profile– In it, the majority of participants (40.8%) in this study were ranged from 18-25 years old, with 29.5 % of them being 25-40 years, 40-45 years old were 17.5% and below 18 years were 12.3% respectively. Nearly 56.8% of the participants were male and 41.3% were female whereas only 2% were from the other sex. Whereas 69.0% population were Muslim, 18.5% were Hindu, 7.2%, 3.8%, and 1.5% were Sikh, Christian, and others respectively. More no. of the population is Muslim because of area specific. Out of 400 participants, 45.3% were married, 36.3% were unmarried and 7.5%, and 11% were divorced and widow/widower respectively. Out of 400 participants, 31.5% were professionally educated, and 9.8% were graduates. 9.5% were

intermediate/diploma, 16% were high school, 6.5% were middle school, 9.0% were primary school, and 17.8% were not specified about their education. Based on occupation, a majority of 25.3% were from sales, 20.8% were unemployed, 18.8% and 17.3% were household/manual workers and servicemen respectively, 13% were professional and only 5% were from an agriculture background. Out of all the participants 52.8% were from a semi-nuclear family with 4-6 family members as depicted in **Table: 5**. Participant's Health Lifestyle- out of 400 participants 46.5% were smokers. Out of which 16% were using a cigarette, 1% using Vape, 17.8% were bidi users and 11.8% were Huqqah users. And 53.5% of them were on smokeless Tobacco (SLT) as in **Figure 1**. Out of these 42% were smoking 4-6 times a day and 24%, and 28% were using less than 2 times and 2-4 times a day respectively. Whereas 64.8% of participants started tobacco at the age ranging from 18-25 years, 30.3% started when they were below 18 and only 5% started after 25 years of age.

Knowledge, attitude, and awareness about Tobacco Cessation as depicted in **Figures 2** and **3**- Out of all the participants 23.5% try to quit in the last 5-10 years, and 26.5% tried more than 10 years ago but a majority of 50% try to quit within 0-5 years. A majority of the population 30.5% started tobacco due to friends, 23% started due to emotional reasons, and 18.8% and 27.8% started due to peer pressure and other reasons respectively. Out of all 85% population was well aware of tobacco consumption's side effects that why they advised others not to use tobacco. And 36% had no idea of quitting but 64% have it. 71% of the population try to quit once, twice or more than attempts and 29% haven't thought of it. Reasons to quit tobacco were breaking the habit and social pressure 11%, health 15%, and cost 9.8%, 11.5%, 13%, and 14.8% were other reasons. Out of 400, only 62.3% of the population is aware of the government programme to quit tobacco but 37.8% have no idea about it.

IV. DISCUSSION:

The objective of this research was to access knowledge attitude and awareness of side effects of tobacco consumption and to know the attitude towards quitting tobacco. This study also performed to access the level of awareness of the people towards government facilitated Programme of tobacco consumption associated reasons to quit, failure to quit and reasons to resume tobacco consumption. And to facilitates tobacco cessation among young adults in Delhi. The objectives of the study were achieved in several stages, when relevant literature was revised and a suitable theoretical framework was built, on the basis of which the content of the program was developed and finalized under the guidance of experts in the field. The last step was to create a multivariate questionnaire for data collection. The study was conducted by randomly selecting the participants those who were young adult within the age of 17-45 years residing in the urban area of Okhla. The results indicate that there is no significant relationship between the socio-demographic details and tobacco consumption but there is a very significant relationship between education and perception towards quitting attempts, awareness of side effects of tobacco and awareness about government program. Willingness to change is at the very core of tobacco cessation and here the researcher was able to clearly demonstrate that there is a need of program developed for tobacco cessation at a very vast level and should be very easily accessible. However, it can facilitate other tobacco cessation aids available in India.

V. CONCLUSION:

With other studies there is very low-certainty evidence that quit rates increase when dental professionals offer behavioural support to promote tobacco cessation. There is moderate-certainty evidence that tobacco abstinence rates increase in cigarette smokers if dental professionals offer behavioral support combined with pharmacotherapy. Further evidence is required to be certain of the size of the benefit and whether adding pharmacological interventions is more effective than behavioral support alone. Future studies should use biochemical validation of abstinence so as to preclude the risk of detection bias. There is insufficient evidence on whether these interventions lead to adverse effects, but no reasons to suspect that these effects would be specific to interventions delivered by dental professionals. The researcher could check for extended tobacco consumption cessation demands the collection of elongated follow-up data to measure the outcome of treatment on putting into practice of the cessation skill. It is clear that future studies in this area of training and development style of research should utilize extended periods of follow-up to measure tobacco consumption cessation skill across a longer time frame. Although trials of tobacco consumption cessation treatment classically follow participants up for one-year post Intervention, the short stretch of student availability at the institution due a shorter span of course.

The purpose of this study was to demonstrate the knowledge attitude and awareness of tobacco consumption effects and its cessation. This study also aims to determine tobacco cessation motivational factors and factors

responsible for the failure to quit tobacco. It also aims to understand that any Government Programme will play an important role in Tobacco cessation.

Reasons to quit smoking or tobacco consumption were children health, fitness, improve health, fear of image, break habit, cost or social factors and others. This study demonstrated that education and awareness can play a vital role in Tobacco Cessation. This study may be a factor of change that would bring about a different perspective on tobacco consumption behavior and the process of quitting.

VI. RECOMMENDATIONS:

The NGOs and Government are to develop a Programme to encourage Tobacco cessation. Smoking/Tobacco continues to be the leading cause of preventable death in India, so it is important to reach out to them about the importance of changing their behavior and educate them on the skills needed to change their smoking behavior. Government should include a range of measures, notably; a total ban on tobacco advertising and promotion on a public platform.

VII. LIMITATIONS OF THE STUDY:

Allocation of resources, if we have a proper number of skilled manpower, we gather more inputs from respondents. Another limitation was time, as it is my thesis need to be done within a short time interval. The study design of the current research project originally included one questionnaire session. However, this study survey was limited to a confined area but it requires a very vast level of survey; it will serve as the motive of our project more clearly.

XI. REFERENCES:

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TABLE

Table: 1 - Cross Tab for 2 variables Tobacco vs Age, Education and Income

Variable 1	Variable 2	P-Value	Test	Significance	Alternate Hypothesis/ Null Hypothesis
Smoking / Tobacco	Age	0.982	Chi-square test	Not Significant	Null Hypothesis Accepted
	Education	0.657	Chi-square test	Not Significant	Null Hypothesis Accepted
	Income	0.186	Chi-square test	Not Significant	Null Hypothesis Accepted

Table: 2 - Cross Tab for 2 variables number of Quit Attempts vs Age and Education

Variable 1	Variable 2	P-Value	Test	Significance	A.H/N.H
Quit Attempts	Age	0.001	Chi-Square Test	Significant	Null Hypothesis rejected
	Education	0.001	Fishers Test	Significant	Null Hypothesis rejected

**Table: 3 - Cross Tab for 2 variables Awareness about Tobacco Cessation vs Age and Education**

Variable 1	Variable 2	P-Value	Test	Significance	A.H/N.H
Awareness about Tobacco Cessation	Age	0.874	Chi-Square Test	Not Significant	Null Hypothesis Accepted
	Education	0.001	Chi-Square Test	Significant	Null Hypothesis rejected

Table: 4 - Cross Tab for 2 variables Awareness about Government Program of Tobacco Cessation vs Age and Education

Variable 1	Variable 2	P- Value	Test	Significance	A.H/N.H
Awareness about Government program of Tobacco Cessation	Age	0.792	Chi-Square Test	Not Significant	Null Hypothesis Accepted
	Education	0.001	Fishers Test	Significant	Null Hypothesis rejected

Table: 5 - Characteristics Frequency and Percentage

Characteristics	variables	Frequency	Percentage
Age	Below 18 years	49	12.3
	18-25 years	163	40.8
	25-40 years	118	29.5
	40-45 years	70	17.5
Gender	Male	227	56.8
	Female	165	41.3
	Others	8	2.0
Number of cigarettes/Bidi/Vape/ Gutkha/Others per day	Less than 2	96	24.0
	2-4	112	28.0
	4-6	168	42.0
	7 or more	24	6.0
No. of quit attempts	Yes	284	71.0
	No	116	29.0
Awareness About government programs	Yes	249	62.3
	No	151	37.8

FIGURE
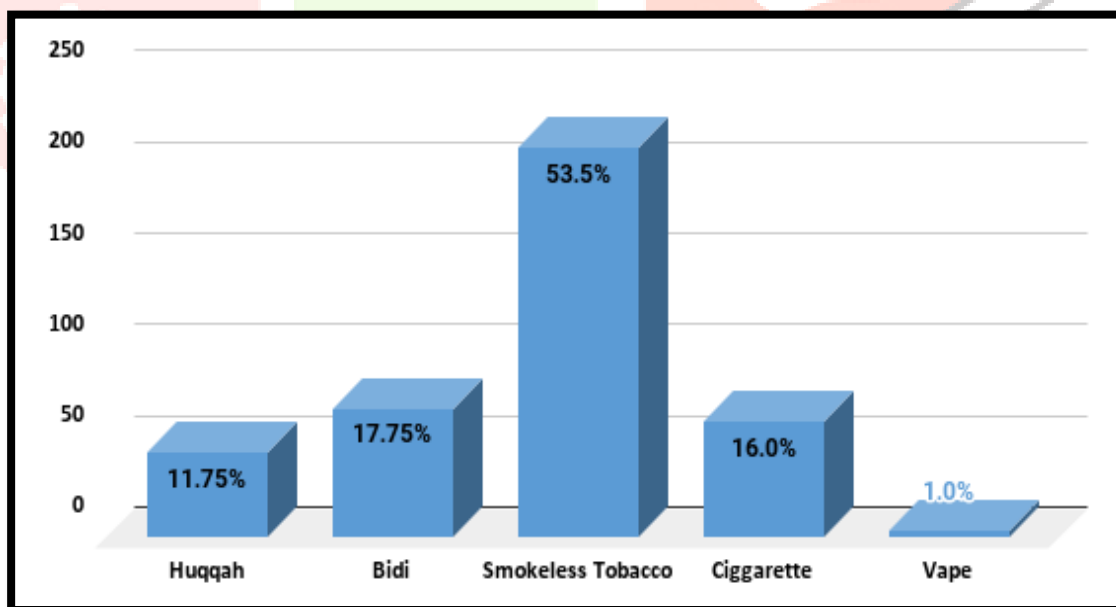
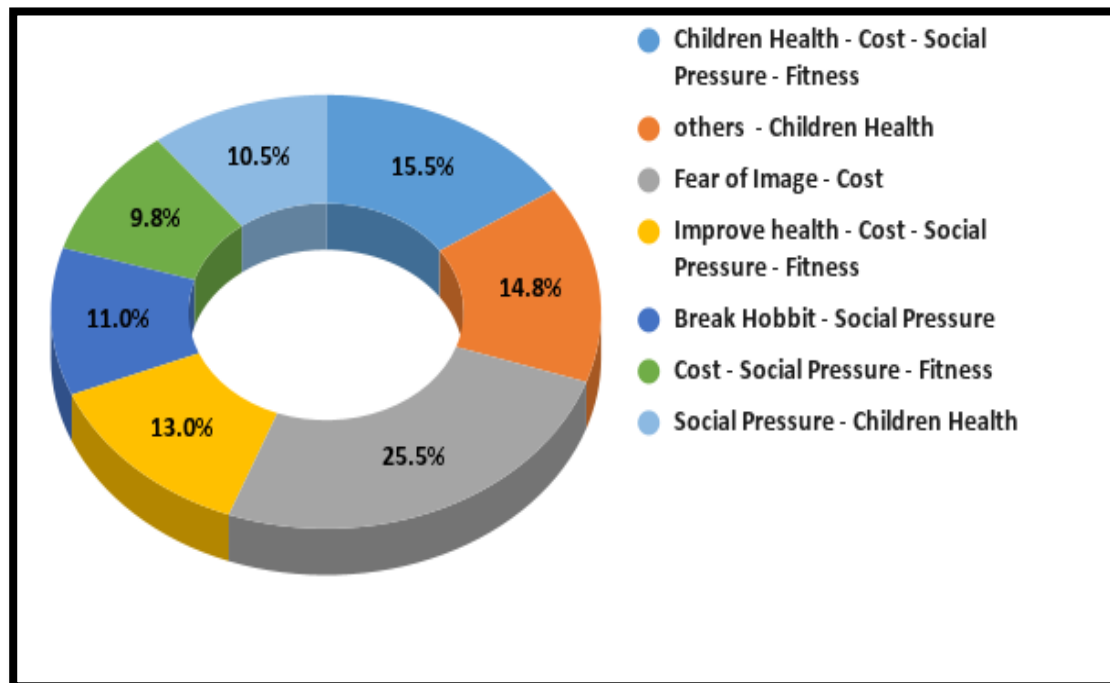**Figure: 1 - Graphical Representation of Smoking Type**

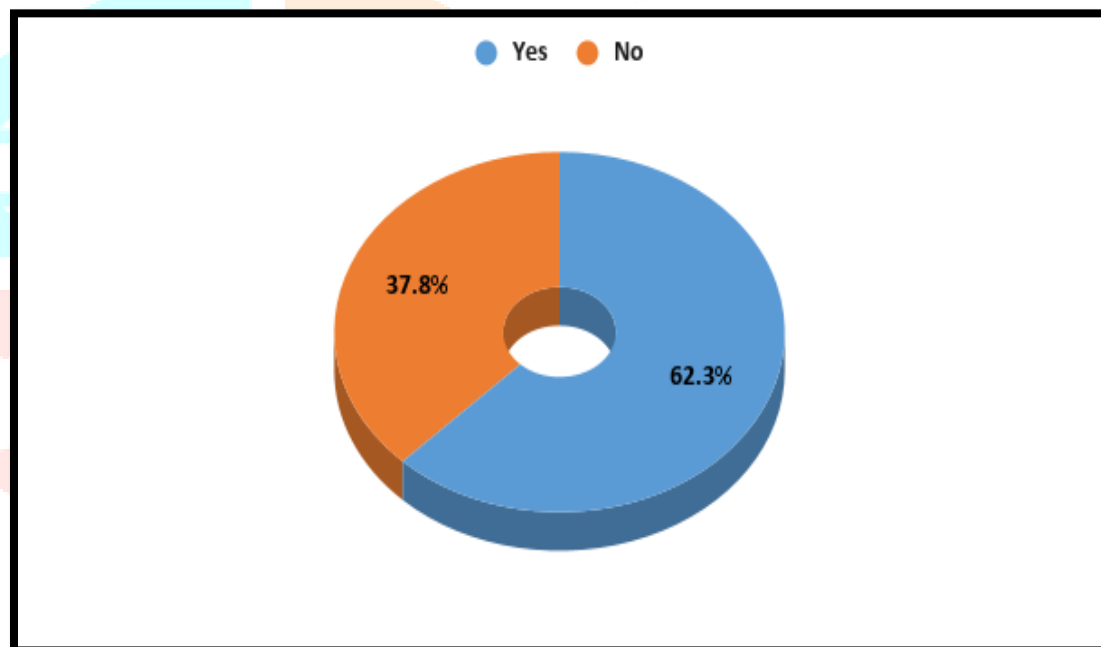**Figure: 2 - Graphical Representation of Tried to quit tobacco**

Figure: 3 - Graphical Representation of awareness about govt. programs