

Awareness Regarding E- Cigarettes Among Dental Students Of Chennai City

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ABSTRACT

INTRODUCTION: The e-cigarette or the electronic devices which have different flavours without tobacco they produce nicotine vapours at different taste which will be inhaled for various reasons. The aim of the study is to assess the knowledge and awareness on e cigarettes among dental students of chennai city.

MATERIALS AND METHODS: A cross-sectional study was conducted employing a self administered questionnaire to the undergraduate students of the author's University. Students pursuing first year, second year, third year, final year and internship who were willing to participate in the study included. This study was conducted by assessing responses to 10 selected questions pertaining to E Cigarettes through Google forms. Descriptive and inferential statistics were performed.

RESULTS: In the survey 65% of people knew the term E cigarettes and 32% of people were not aware about the term. Majority 52% of participants had not preferred E cigarettes over traditional cigarettes and 44% of people had preferred E cigarettes over traditional cigarettes. Majority 63% of the participants considered the e-cigarette to be a bane to society and 34% of participants considered it to be a boon. The difference in awareness between male and female participants was statistically significant (Chi-square test, p value= 0.000).

CONCLUSION: Majority of people even know about the e-cigarettes they are not aware about the complete harmful effects of e-cigarette. Awareness on harmful effects of e-cigarette to be inculcated in dental education.

KEY WORDS: E Cigarettes, Lung cancer, rehabilitation centre, inhalation, novel method, innovative technology

INTRODUCTION

Electronic cigarettes are electronic devices which have different flavours without tobacco (1). This is a cigarette where people inhale Nicotine vapours at different and various tastes(2). The electronic cigarettes as the name suggest they are working with battery supply they are rechargeable(3), even though E cigarettes causes less harm than the normal traditional cigarettes it does not mean they are completely harmless it is reported that e-cigarette causes harm to the internal organs and causes health

issues (4), The cigarettes are said to be safer than tobacco because the traditional cigarettes and cigars contains around 500 harmful carcinogenic substances in them(5). There are many disposable and reusable cigarettes available so that it becomes economical (6)

The e-cigarette on other hand the aid in overcoming the smoking habits (2) due to the increasing knowledge on the adverse effects of the traditional cigarettes and alternative that is e-cigarette has gained popularity it seems to be an healthy and hygienic option to the people (7), however even though e-cigarette assist in overcoming the smoking habit it is also be becoming an addiction in the current population which do causes some conditions like anxiety poor concentration irritation loss of memory (8) (9)finally in many studies it is inferred that the addiction towards e-cigarette is less than the addiction towards traditional cigarettes or cigars(9,10) the e-cigarette are also called as ENDS which means electronic nicotine delivery system (11) the weight loss concerns on using cigarettes is also seen (12).it is said that the weight control is somewhere related to smoking ,smoking cigarette suppresses the appetite (13) ,people are using e-cigarette so that they can reduce weight as well causes less harm (14) ,the tobacco smoking is replaced by e-cigarette which is an atomiser which will heat up the special e liquid and inhalation will occur the special thing about e-cigarette is that they don't release carbon monoxide they are also called the vaping devices. These e-cigarette can also cause sexual impotence in the previous research that is conducted in Malaysia China Britain in 2017 Zhejiung youth behaviour survey 24,157 adolescents with self-reported questionnaire with majority of people that is 70% of people or aware about the term e cigarette,confidence interval is 95% challenges faced by others with that it is hard to find people who use e-cigarette that is not all people are well-worse to buy E cigarettes they prefer which is nearby and easily accessible that is the normal traditional cigarettes. Our team has extensive knowledge and research experience that has translated into high quality publications (15–34).

This research is needed to create awareness about the e-cigarette the harm they produce and to find in what way e-cigarette are better than normal traditional cigarettes this study will help in avoiding the teenagers about the harm of e-cigarette it is not totally harmless it does have some effects of normal smoking habits to know people that the assist people in overcoming the normal smoking habits the main aim of the study is to assess the awareness regarding e-cigarette among dental students in Chennai city

MATERIALS AND METHOD:

A cross-sectional study was conducted employing a self administered questionnaire to the undergraduate students of the author's University. Prior ethical approval to conduct the study was obtained from the Institutional Review board of the Author's university.Non-probability convenience sampling was employed. Students Pursuing first year, second year,third year, final year and internship were willing to participate in the study included. The participation of the subject was voluntary, and their identities were kept anonymous. A pre-validated questionnaire containing 10 questions had been distributed to the participants. The internal consistency of the questionnaire using cronbach's alpha was found to be 0.71

This study was conducted by assessing responses to 10 selected questions pertaining to E Cigarettes among dental students through Google forms with a sample size of 100-150 dental students.The email id of all the undergraduate students was obtained from the students office and a link to google forms were sent. A reminder mail was also sent for non-respondents. Statistical analysis was performed using

Statistical Package for the Social Science (SPSS) software version 23.0 (IBM, Chicago, USA). Descriptive statistics was performed to present the frequency distribution of the options of the question items.

RESULTS

In the survey 65% of people knew the term E cigarettes and 32% of people were not aware about the term (Figure 1). Majority 52% of participants had not preferred e cigarettes over traditional cigarettes and 44% of people had preferred E cigarettes over traditional cigarettes (Figure 2). In the questions which were asked, which will cause more harm, 50% of the participants have chosen traditional cigarettes and 44% has chosen E cigarettes (Figure 3). E-cigarettes assist in overcoming the smoking habits, 51% of the participants had accepted it and 45% of the participants had not accepted (Figure 4). Majority 51% of the people are aware that e-cigarette have harmful effects and 46% of the people didn't know that (Figure 5). E cigarettes assist in overcoming the smoking habits, 45% of Participants think that E cigarettes can cause a revolution in rehabilitation centres where 53% of participants disagree with that (Figure 6). 54% of the participants inferred that e-cigarette are not economical and 43% of participants inferred that they are economical (Figure 7). E cigarettes may cause lung cancer 52% of people are not aware that it can cause lung cancer and 45% of people are aware about it (Figure 9). Majority 63% of the participants considered the e-cigarette to be a bane to society and 34% of participants considered it to be a boon to society (Figure 10). Around 36.11% of males and 16.67% of females inferred that e-cigarettes can assist in overcoming the smoking habits and 18.52% of females and 28.70% of males has inferred that e-cigarette cannot assist. The differences between the groups were statistically significant (Chi-square test, p value=0.000) (Figure 11). Nearly 32.11% of males and 13.76% of females inferred that e-cigarettes can create an revolution in rehabilitation center and 21.10% of females and 33.03% of males has inferred that e-cigarettes can create an revolution in rehabilitation center. The differences between the groups were statistically significant (Chi-square test, p value=0.000) (Figure 12). Around 34.86% of males and 11.93% of females are aware that it can cause lung cancer and 22.94% of females and 30.28% of males are not aware that it can cause lung cancer. The differences between the groups were statistically significant (Chi-square test, p value=0.000) (Figure 13).

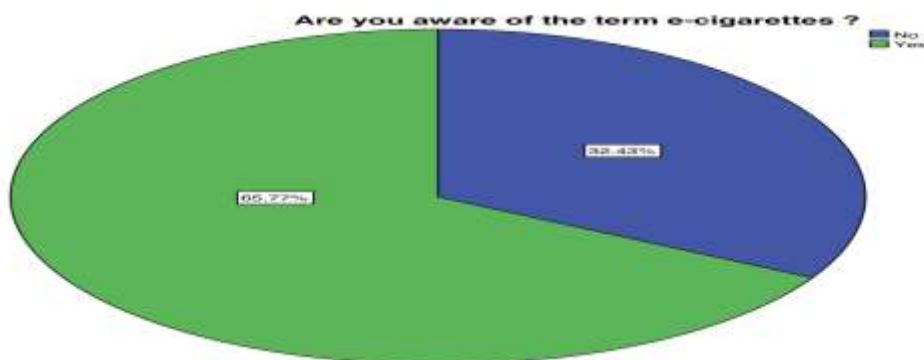


Figure 1: Pie chart represents the percentage of participants aware about the term e-cigarettes. Green colour represents yes and blue colour represents No. 65% of people knew the term E cigarettes and 32% of people were not aware about the term

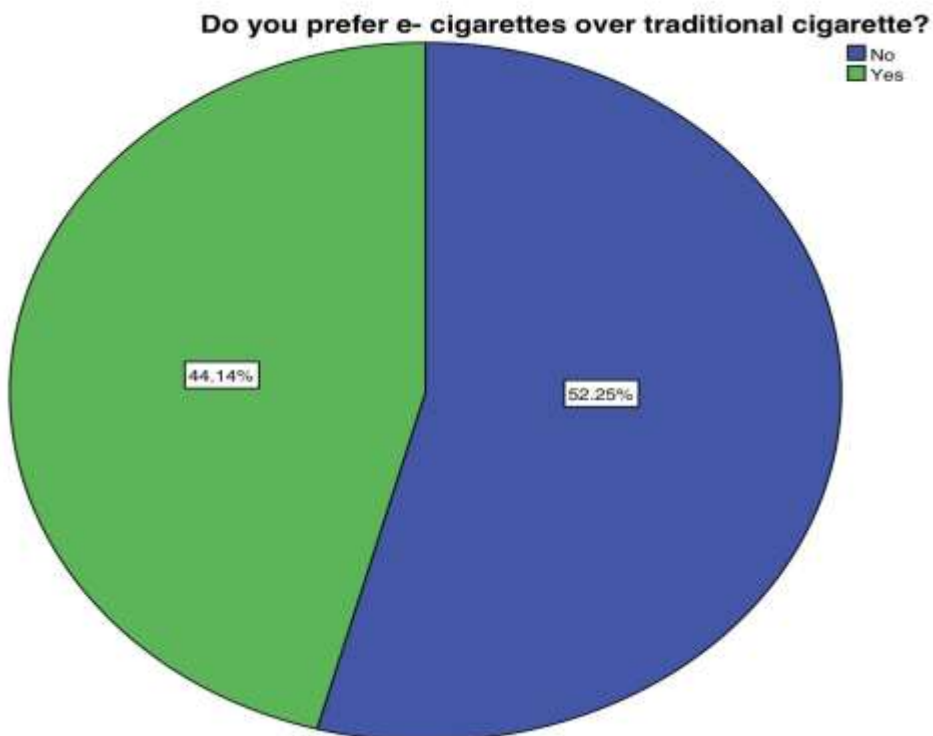


Figure 2: Pie chart represents the percentage of preference of participants. Green colour represents yes and blue colour represents No. Majority 52% of participants had not preferred e cigarettes over traditional cigarettes and 44% of people had preferred E cigarettes over traditional cigarettes

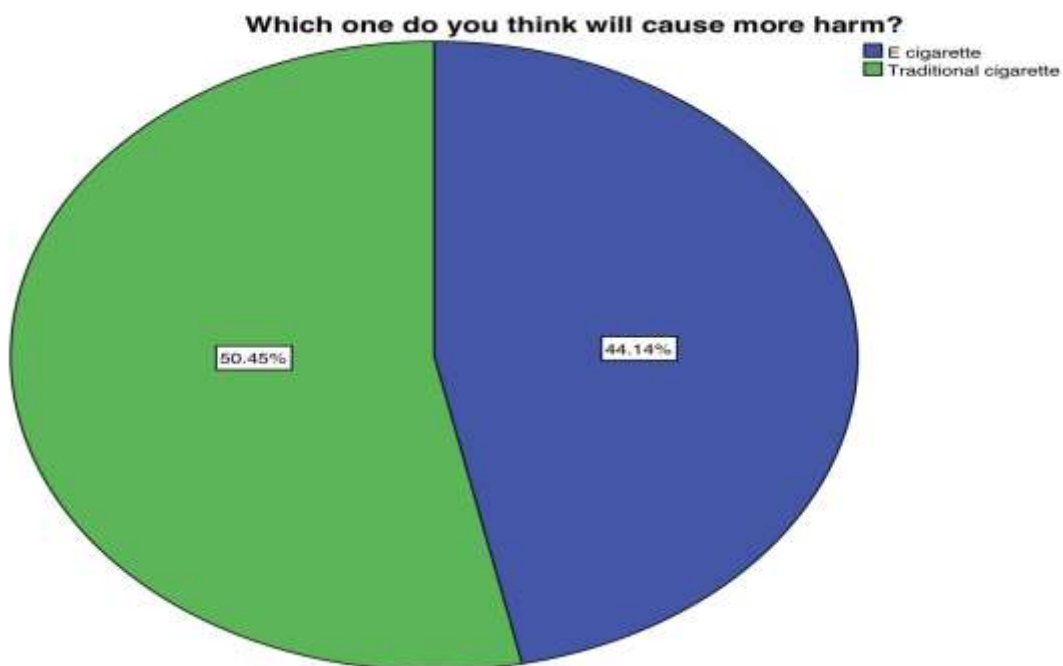


Figure 3: pie chart represents the percentage of responses of participants on the awareness of harmful effects of e cigarettes. Green colour represents yes and blue colour represents No. 50% of the participants have chosen traditional cigarettes and 44% has chosen E cigarettes

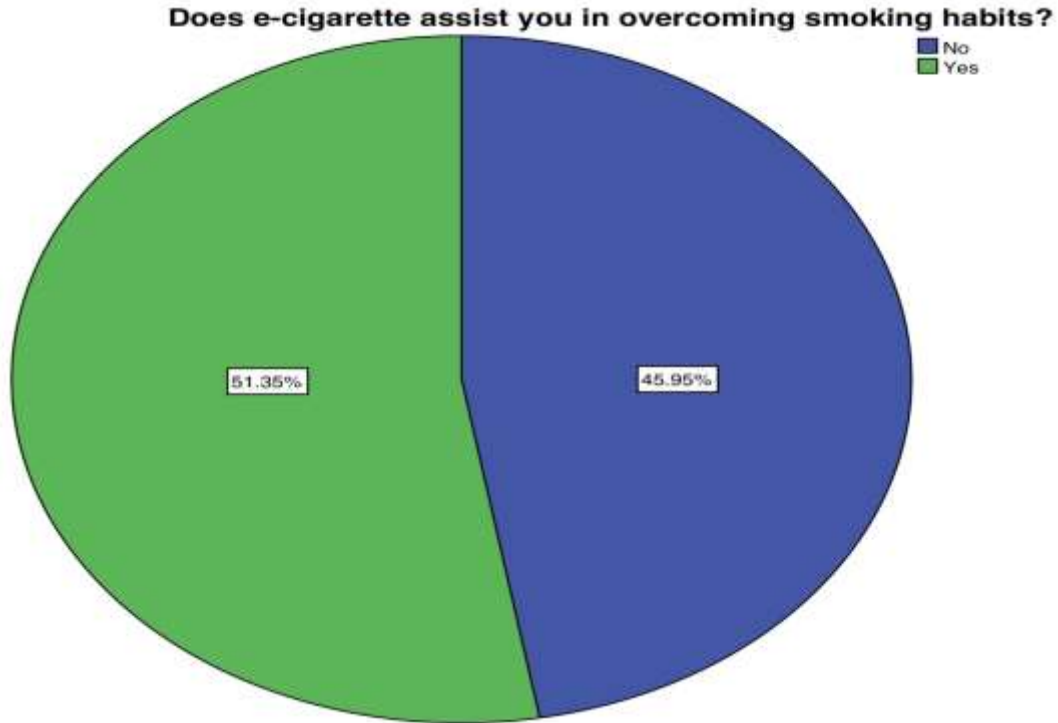


Figure 4: pie chart represents percentage of responses from participants on the assistance of e cigarettes in overcoming smoking habits. Green colour represents yes and blue colour represents No. E-cigarettes assist in overcoming the smoking habits, 51% of the participants had accepted it and 45% of the participants had not accepted

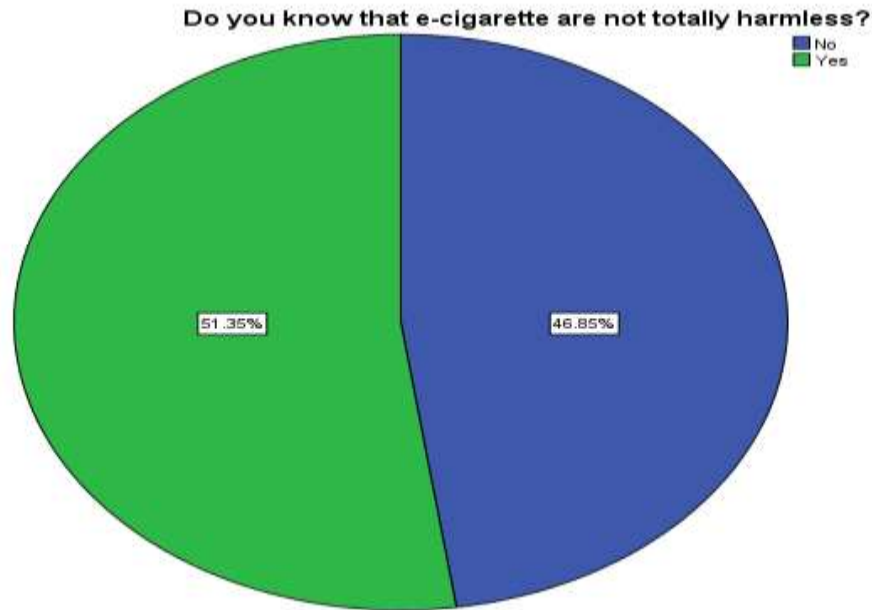


Figure 5: pie chart represents the percentage of responses from the participants on harmfulness of e cigarettes. Green colour represents yes and blue colour represents No. Majority 51% of the people are aware that e-cigarette have harmful effects and 46% of the people didn't know that

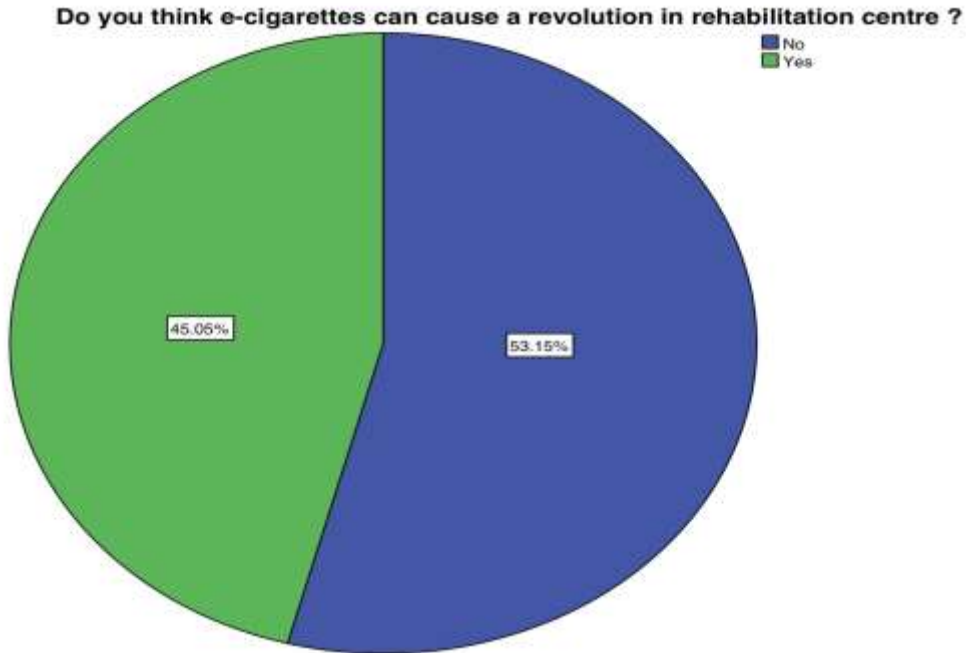


Figure 6: pie chart represents the percentage of responses from participants on the revolution of e cigarettes in rehabilitation centres. Green colour represents yes and blue colour represents No. E cigarettes assist in overcoming the smoking habits, 45% of Participants think that E cigarettes can cause a revolution in rehabilitation centres where 53% of participants disagree with that

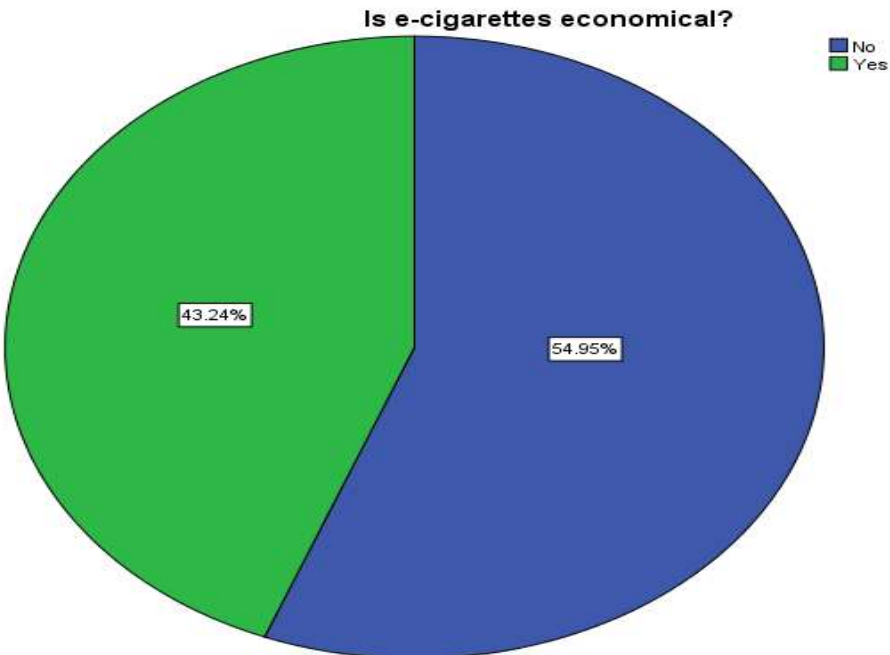


Figure 7: pie chart represents the percentage of responses from participants on the availability and accessibility of e cigarettes. Green colour represents yes and blue colour represents No. 54% of the

participants inferred that e-cigarette are not economical and 43% of participants inferred that they are economical

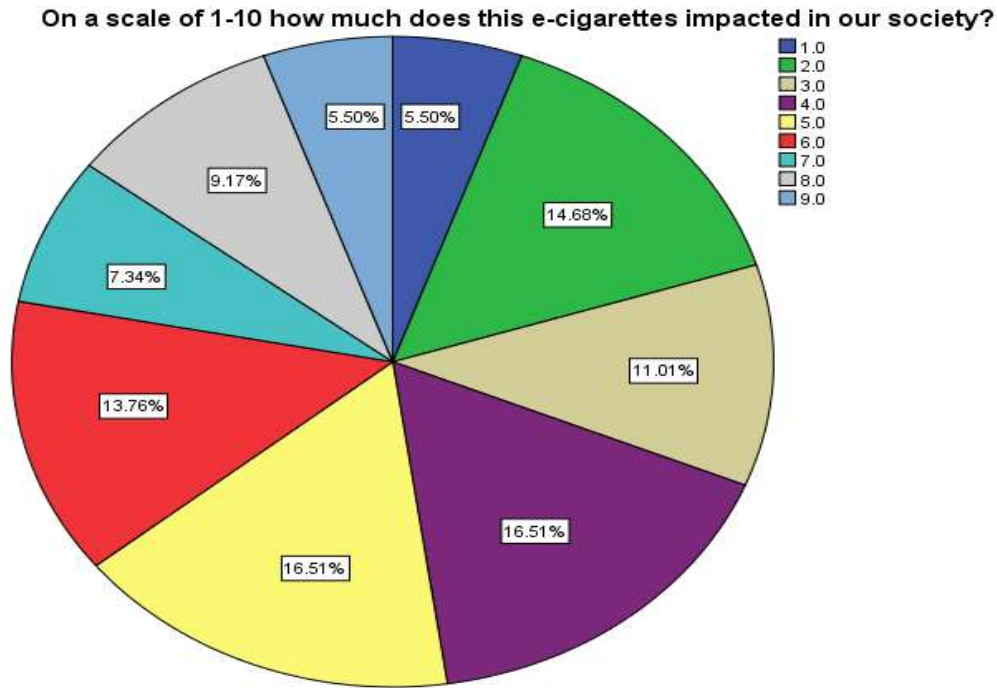


Figure 8: pie chart represents the percentage of responses from participants on the impact of e cigarettes in our society. Most participants suggested that e-cigarettes have a 50% impact on the society.

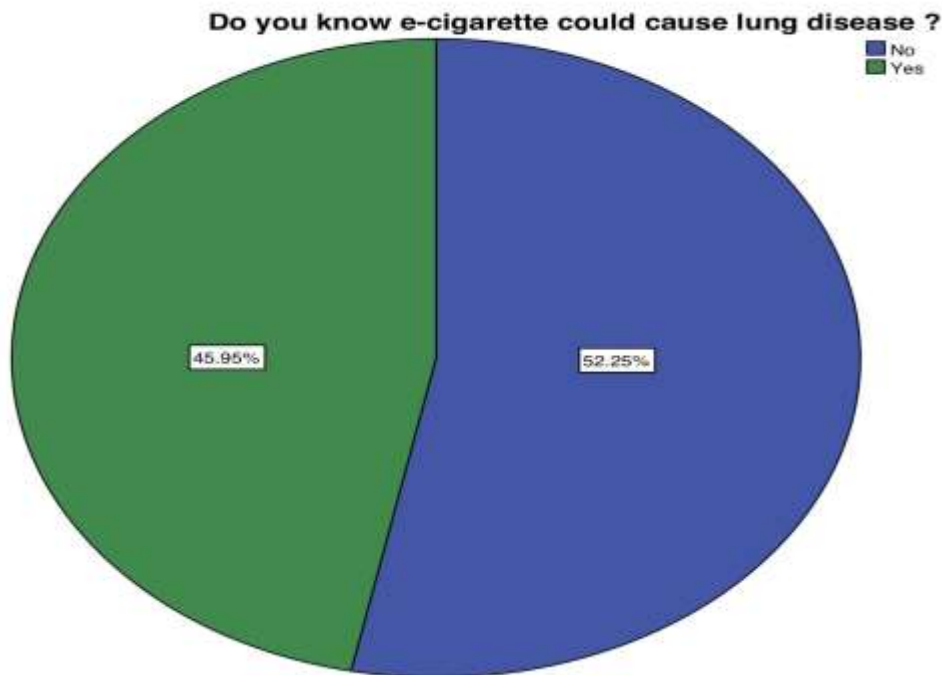


Figure 9: pie chart represents the percentage of responses from participants on the effect of e cigarettes. Green colour represents yes and blue colour represents No .E cigarettes may cause lung cancer 52% of people are not aware that it can cause lung cancer and 45% of people are aware about it

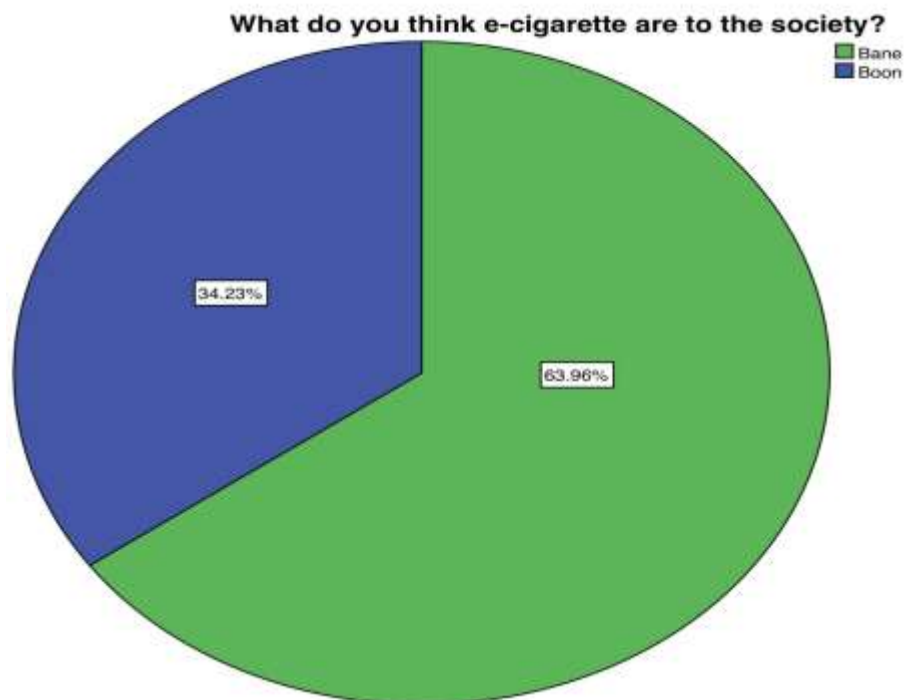
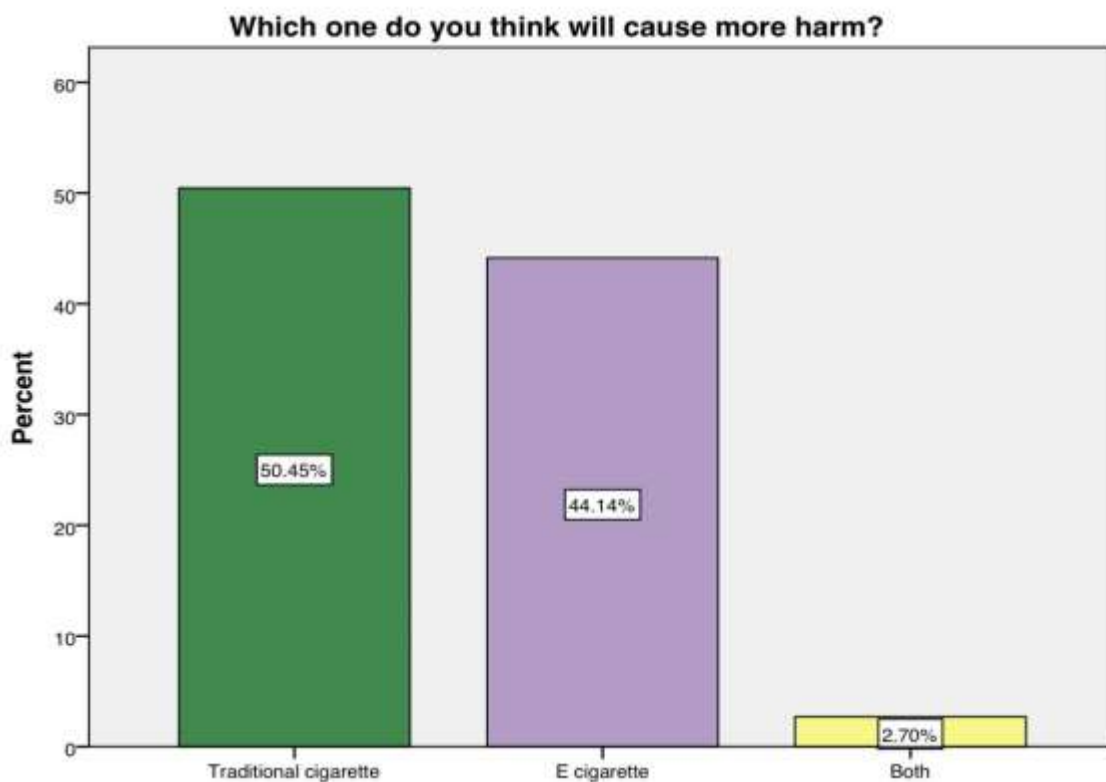


Figure 10: pie chart represents the percentage of responses from participants on the thought about e cigarettes. Green colour represents bane and blue colour represents boon. Majority 63% of the participants considered the e-cigarette to be a bane to society and 34% of participants considered it to be a boon to society



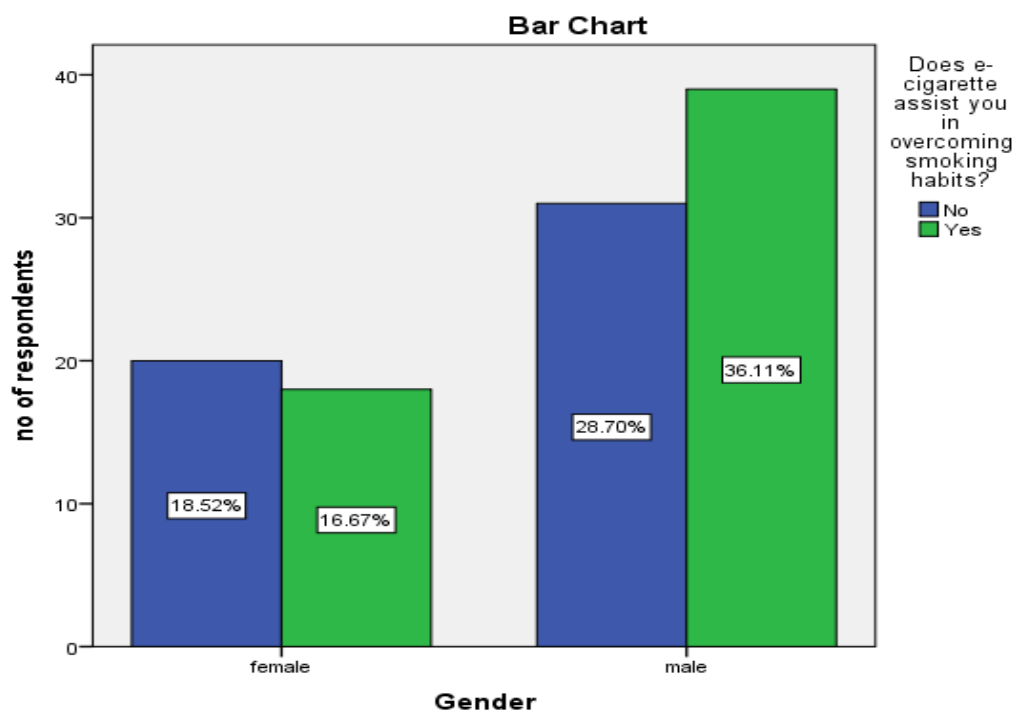


Figure 11: Bar graph depicts association between the gender of the participants and percentage of responses from participants on the assistance of e cigarettes in overcoming smoking habits. X axis represents the gender of the participants and Y axis represents the no of respondents . Green colour denotes Yes and Blue colour denotes No. About 36.11% of males and 16.67% of females inferred that e-cigarettes can assist in overcoming the smoking habits and 18.52% of females and 28.70% of males has inferred that e-cigarette cannot assist .The differences between the groups were statistically significant (Chi-square test, p value= 0.000 - significant).

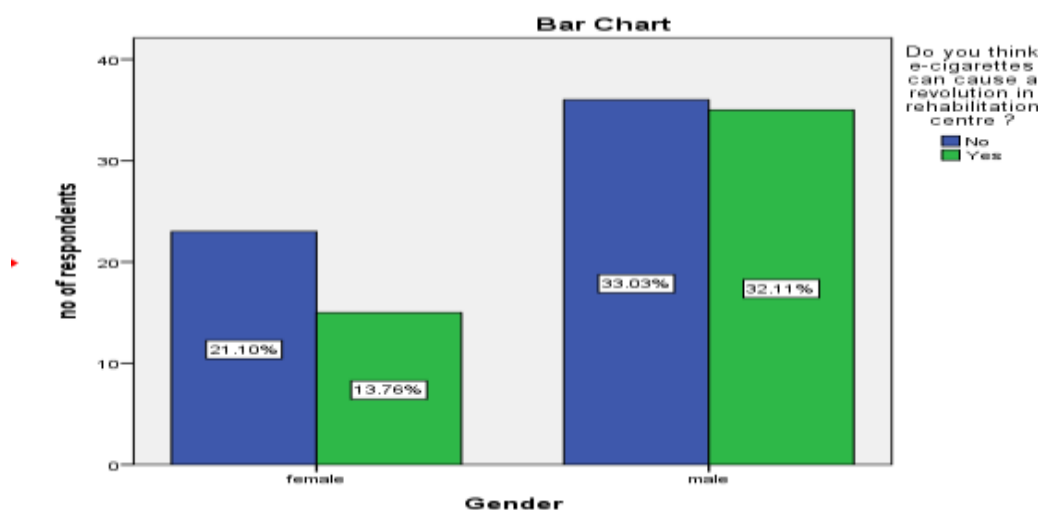


Figure 12: Bar graph depicts association between the gender of the participants and percentage of responses from participants on the revolution of e cigarettes in rehabilitation centres. X axis represents

the gender of the participants and Y axis represents the no of respondents . Green colour denotes Yes and Blue colour denotes No. About 32.11% of males and 13.76% of females inferred that e-cigarettes can create an revolution in rehabilitation center and 21.10% of females and 33.03% of males has inferred that e-cigarettes can create an revolution in rehabilitation center.The differences between the groups were statistically significant (Chi-square test, p value=0.000 - significant).

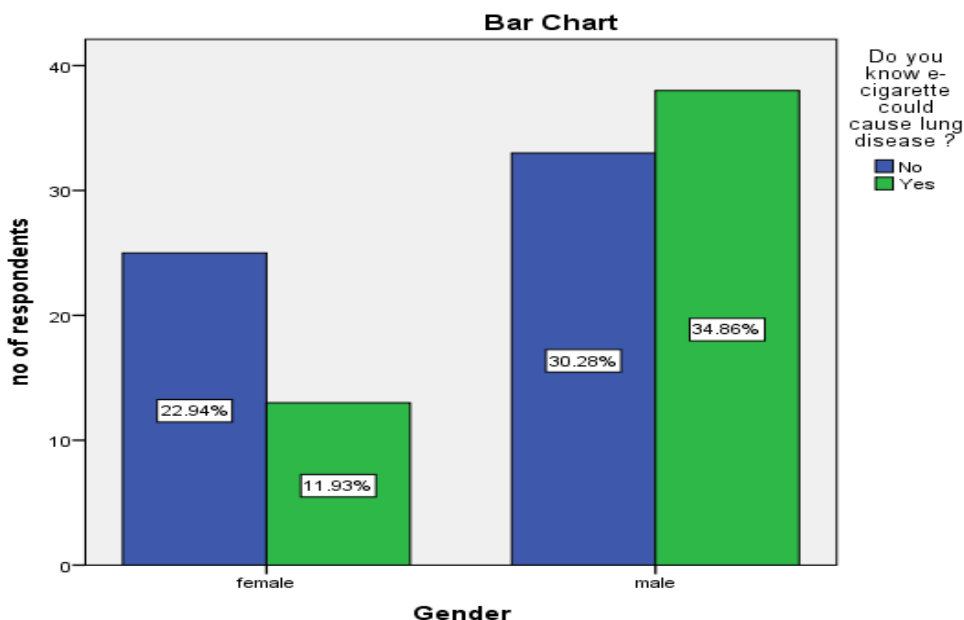


Figure 13: Bar graph depicts association between the gender of the participants and percentage of responses from participants on the effect of e cigarettes. X axis represents the gender of the participants and Y axis represents the no of respondents . Green colour denotes Yes and Blue colour denotes No. About 34.86% of males and 11.93% of females are aware that it can cause lung cancer and 22.94% of females and 30.28% of males are not aware that it can cause lung cancer.The differences between the groups were statistically significant (Chi-square test, p value= 0.000 -significant).

DISCUSSION

In the study we observed that, most of the people know the term e-cigarettes only 32.4% of the people didn't know about e-cigarette but 52% of the people have conferred that they do not prefer e-cigarette.eventually even though people are aware that it is not commonly used. The e-cigarette is thought to be an alternative for traditional cigarettes but 53% of people has conferred that e-cigarette cannot cause revolution in rehabilitation centre and 45% of people had confirmed that e-cigarette can cause revolution in rehabilitation Centre , e-cigarette 54% of the people has conferred that e cigarette are not economical and 43% of people conferred that they are economical,on a scale of 1 to 10 most of the people have told e-cigarette impact in our society at a level of 4 to 5 ,most of the people didn't know that e-cigarette can cause lung cancer very few only that is 34% of people has conferred that e-cigarette are boon that is helpful in our society and majority 63% of people has conferred that it is a bane to the society The knowledge on e-cigarette: Most of the people are aware about the e-cigarette in other article 97% of population or aware about the electronic cigarettes only 13% didn't know about it, In other article 88.6% (35) , 50.3% (36) of people are aware about the term.

68% of people population are aware about the consequences of usage of e-cigarette and only 31% of population didn't know about the consequences (37), eventually in this survey even though majority of people are aware about the term e cigarettes most of them didn't know about the consequences that it will cause lung cancer, memory impairment, impotency but these are studies which are in contrast with this study.

Attitude towards e-cigarette: Most of the people did not prefer E cigarettes, majority has inferred that traditional cigarette causes more harm than the e-cigarette, The e-cigarette are not economical and or not easily available people have conferred that E cigarettes are bane to the society in other evidences Overall 60% of people have inferred that e-cigarette are less harmful to the health, Overall 50% of the people have inferred that the price of e-cigarette is economical In the study most of the people has inferred that e-cigarette are also harmful but has less harm than traditional cigarettes, majority in the survey has said e-cigarette or not economical.

Perception on e-cigarette :51% of people has agreed that E cigarettes can assist in overcoming smoking habits 45% of people has disagreed it, contrastingly, 53% of people had inferred that e cigarettes cannot cause a revolution in rehabilitation centre this is where the awareness about e-cigarette is needed 51% of people has known that e-cigarette are not totally harmless 46% of population are unaware about it. On a scale of 1 to 10 people has conferred around 4 to 5 level on the impact of e-cigarette in our society in other article overall 60% of people have inferred that e-cigarette are assisting in overcoming the desire to smoke in this study 51% of people has inferred that e-cigarette or assisting in overcoming the desire to smoke. The limitation of the study is that the survey has been done in a limited population and in a particular dental college. Further this study has to be done in a wider population, with different groups of people that are of different language, country, habits, culture, diet to extrapolate the results.

CONCLUSION

Majority of people even they know about the e-cigarettes they are not aware about the complete harmful effects of e-cigarette, the e-cigarette has to be used in our society but only to overcome this smoking habits and not for weight loss or addiction this awareness should be created by this kind of studies camps, posters.

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CONFLICT OF INTEREST

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

AUTHOR'S CONTRIBUTION

RASVEYA.S: Literature search, data collection analysis, manuscripts drafting

ARTHI BALASUBRAMANIAM: Data verification, manuscripts drafting

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ANNEXURE

1. Are you aware of the term e-cigarettes?
 - A) Yes
 - B) No

2. Do you prefer e-cigarettes over traditional cigarettes?
 - A)Yes
 - B) No

3. Which one do you think will cause more harm?
 - A)Traditional cigarette
 - B)E cigarette

- 4.Does e-cigarette assist you in overcoming smoking habits?
 - A)Yes
 - B)No

- 5.Do you know that e-cigarettes are not totally harmless?
 - A)Yes
 - B)No

6. Do you think e-cigarette can cause a revolution in rehabilitation centres?
 - A)Yes
 - B)No

- 7.Is e-cigarette economical?
 - A)Yes
 - B)No

- 8.On a scale of 1-10 how much does this e-cigarette impact our society?
 - A)1-3
 - B)3-6
 - C)6-10

9. Do you know e-cigarette could cause lung cancer?
 - A)Yes
 - B)No

10. What do you think e-cigarette are to society?
 - A)Bane
 - B)Boon