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AWARENESS OF HEALTH BENEFICIAL EFFECT OF OOLONG TEA AMONG DENTAL STUDENTS

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ABSTRACT

Oolong tea is a partially fermented tea originated from China. They have found that oolong tea has a good flavour and aroma which grabs the attention of consumers. It acts as an anti-obesity, antioxidant and anticancer agent. Oolong tea helps in the prevention of obesity and fatty liver and prevents the lipolysis by inducing the activity of noradrenaline which indicates the presence of caffeine in it. The aim of present study is to assess the awareness about the health beneficial effect of oolong tea among dental students. This cross-sectional survey-based study and a set of questionnaires were designed based on the knowledge and awareness of health beneficial effects of oolong tea among dental students. The study population included 100 participants. The questionnaire was distributed through an online survey monkey link. Oolong tea helps in prevention of cardiovascular disease. It is an energy booster, controls diabetes, reduces plaque deposition and so on. Among 100 students only 19% were aware about the oolong tea other 81% were not aware about its existence. 55%

were aware about its health beneficial effects and 49% were aware that consuming oolong tea can reduce dental plaque deposition. Oolong tea has many health beneficial effects and it significantly reduces dental plaque. Hence it may be efficiently used if a dental physician is aware of it.

INTRODUCTION

Oolong tea is a partially fermented tea originated from China. They have found that oolong tea has a good flavour and aroma which grabs the attention of consumers. It acts as an anti obesity, antioxidant and anticancer agent [1]. According to recent studies, the oolong tea has been consumed by only 2% of the population. It has intensity of astringency which makes it more qualitative [2]. Oolong tea helps in the prevention of obesity and fatty liver and prevents lipolysis by inducing the activity of noradrenaline which indicates the presence of caffeine in it. The recent study has declared that it has hypolipidemic effects [3]. Oolong tea has polyphenols [4]. It has many oligomers of catechisms such as theasinensins [5].

Oolong tea has a great role in reducing body weight, as recent studies have found that it has 12% of fat oxidation capacity [6]. More consumption of oolong tea can prevent obesity and *in vitro* studies have reported that this has its action in inhibiting pancreatic lipase [7]. A recent study had separated oolong tea extract into fractions and the fraction containing highest phenolic compounds which is low molecular weight compound have stronger antioxidant activity. Oolong tea has more of low molecular weight antioxidant which provides health promotion [8]. Oolong tea has more antimicrobial activity compared to green tea and black tea [9]. When they compared chlorhexidine with several tea varieties that found that oolong tea had similar inhibitory effect on microbes as chlorhexidine [9].

Oolong tea has a role in preventing dental caries [10]. Oolong tea inhibits plaque deposition when used for rinsing the mouth. Oolong tea is a mixture of catechins, theaflavin and thearubigins [11]. The recent studies have reported that theaflavin has 80% action against cancer ([11,12]. Chlorophyll and theaflavin are the contributors for the colour of oolong tea when manufactured in Thailand [13]. It is an intermediate between green and black tea and partially oxidized tea. The recent study declared that the effects of presence of polyphenols prevent chronic diseases [14]. Oolong tea has more beneficial effects against toxicity and providing healthy life to individual. But awareness about the health beneficial effect of oolong tea is very less and people are not even aware about its existence [15]. Hence the aim of the current study is to assess an awareness of the health beneficial effect of oolong tea among dental students.

MATERIALS AND METHODS

This cross sectional survey based study and a set of questionnaires were designed based on the knowledge and awareness of health beneficial effects of oolong tea among dental students. The questionnaire was distributed through an online survey monkey link. The study population included 100 women. The participants were explained about the purpose of the study in detail. The questions were carefully studied and the corresponding answers were marked

by the participants. The study was approved by the Institutional review board. The data was collected and statistically analysed.

RESULT & DISCUSSION

A total of 100 dental students had responded to the survey, in which only 95 completed their response. Among 100 students only 10% were aware about the oolong tea other 90% were not aware about its existence (Figure 1). When they were told that oolong tea is a mixture of black and green tea and asked whether it will contain caffeine 25% responded 'yes' (Figure 2). 75% were not aware about its health beneficial effects (Figure 3) and 45% were aware that consuming oolong tea can reduce dental plaque deposition (Figure 4). 65% of people were not aware that oolong tea can help in reducing obesity (Figure 5). 25% of people responded that it may help in tooth development (Figure 6) and 50% told that it may be preferable for diabetic patients (Figure 7) and 65% participants responded will have oolong tea in accordance with oral health (Figure 8). Nearly, 50% of dental students reported that the side effect of oolong tea as sleeplessness (Figure 9), 45% as nervousness (Figure 10), 15% as headache (Figure 11). 60% reported it may help in reduction of cholesterol and heart diseases (Figure 12).

There are three types of tea derived from tea leaves among which one is our Oolong tea. It originated from China. The fermentation of this tea is less when compared with black tea [6]. A previous study [16] has detected among 102 women and reported that the women who drank 4 cups of oolong tea reduced kilograms of weight in just 6 weeks. In the current study, 65% were aware that oolong tea helps in reduction of obesity which makes it clear that many are aware about oolong tea and its health beneficial effects. In recent study it has been proved that the fat burning capacity of tea is due to presence of caffeine and polyphenols [5].

From the current survey it has been proved that 73% of dental students were aware that oolong tea prevents heart diseases whereas in another study have found that the people who drink 8 cups of oolong tea per day has reduced 38% of risk of heart disease in men and 22% in women [17]. In the current result, 50% were aware that oolong tea may be preferable to diabetic patients, whereas another study revealed that oolong tea acts as an oral hypoglycemic agent for the treatment of type 2 diabetes [18].

From the current survey, we infer that 25% were actually aware of the health beneficial effect of oolong tea. As oolong tea has its positive action on obesity, dental plaque (Figure 7), tooth development (Figure 6), heart diseases (Figure 12) and so on. It is necessary for knowing its knowledge and awareness among people for them to get beneficial out of it. More and more study of oolong tea would definitely give a clear picture about its beneficial effect to the population for that to progress first the awareness about it must be brought among people.

There are several limitations of the study such as increase in sample size, inclusion of more criteria, survey fatigue, homogenous population and response bias. Future scope of the study is that awareness about the health beneficial effect of Oolong tea can help students and professionals to use it on a daily basis and scientific approach in the medical field can be done to produce drugs using Oolong tea. The current study is an exclusive study which

has analyzed the awareness and knowledge of the health beneficial effect of oolong tea among dental students.

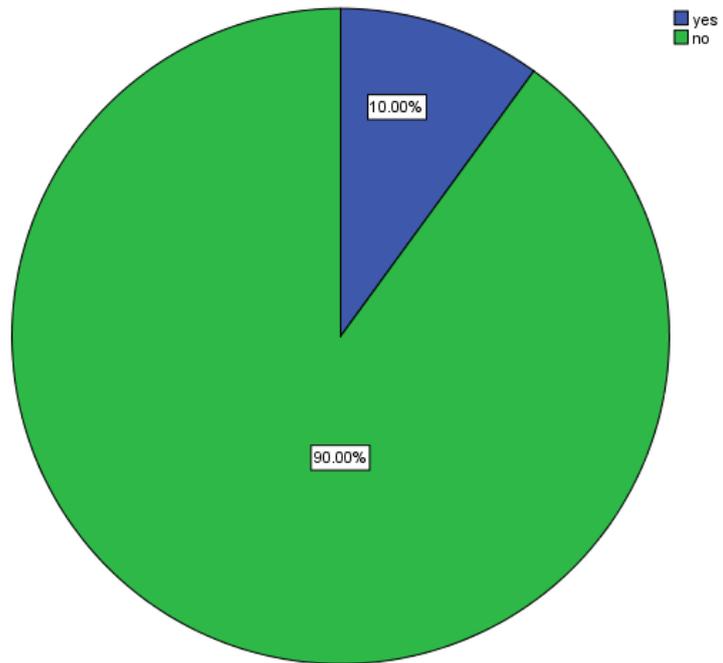


Figure 1: Pie Chart representing the percentage of distribution of responses on awareness of oolong tea among dental students. 10%-yes (blue) and 90%-no (green). Majority of participants (90%) were not aware about the Oolong tea (green).

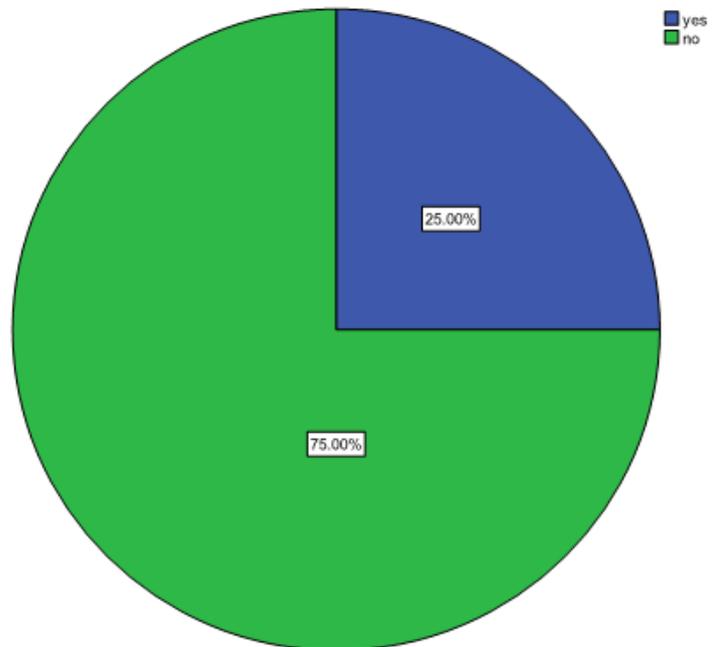


Figure 2: Pie Chart representing the percentage of distribution of response on Oolong tea is a mixture of black and green tea, does it contain caffeine. 25%-yes (blue) and 75%-no (green). Majority of participants (75%) were not aware that Oolong tea contains caffeine (green).

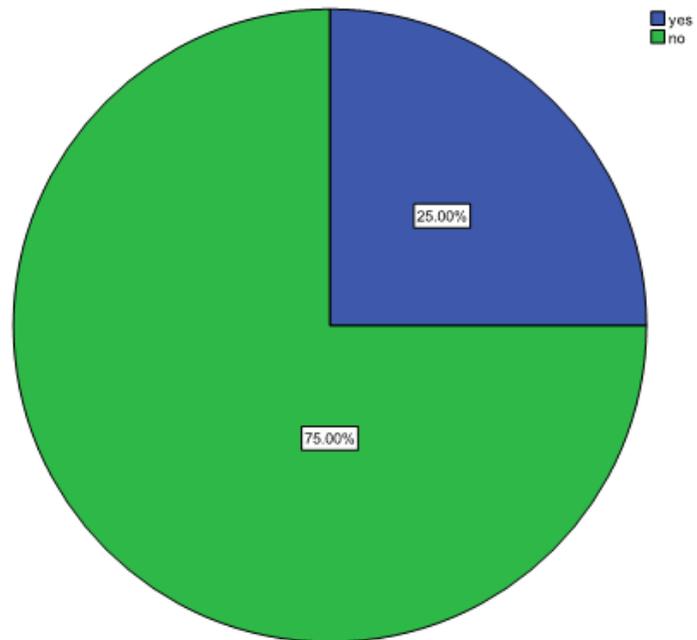


Figure 3: Pie Chart representing the percentage of distribution of response on awareness of oolong tea's health beneficial effect. 25%-yes (blue) and 75%-no (green). Majority of participants (75%) were not aware of Oolong tea's health beneficial effects (green).

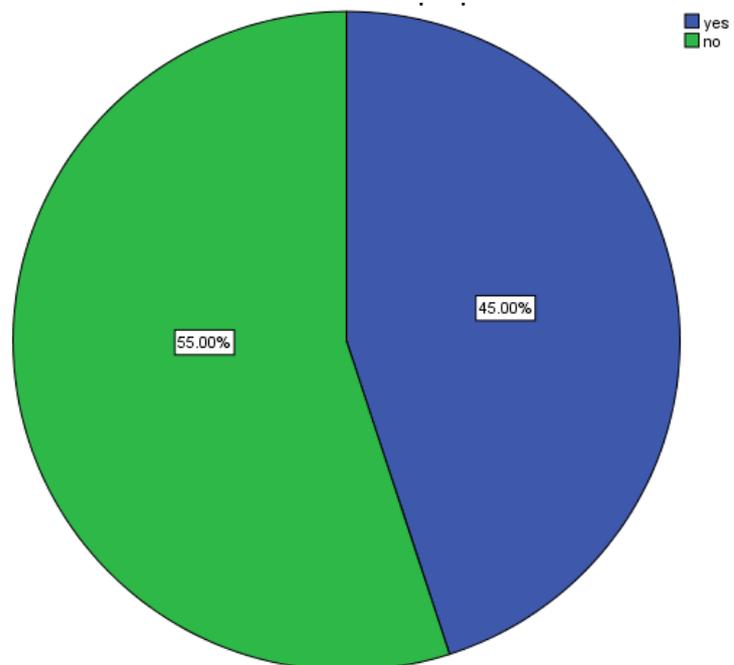


Figure 4: Pie Chart representing the percentage of distribution of response on awareness of oolong tea reduces dental plaque. 45%-yes (blue) and 55%-no (green).

(green). Majority of participants (55%) were not aware that Oolong tea reduces dental plaque (green).

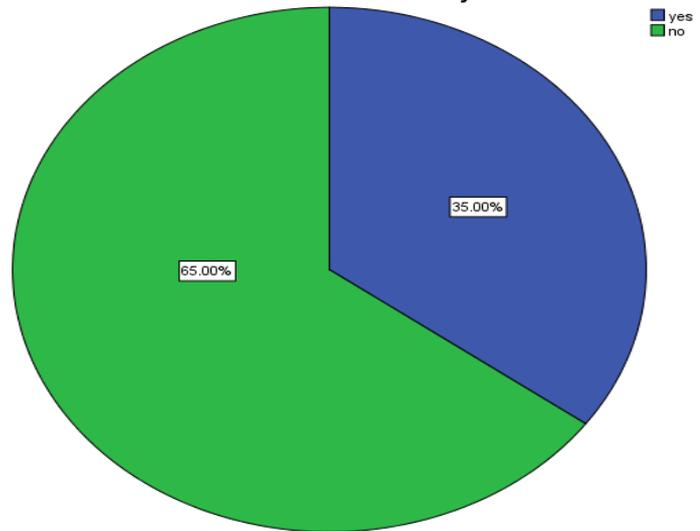


Figure 5: Pie Chart representing the percentage of distribution of response on awareness of oolong tea reduces obesity. 35%-yes (blue) and 65%-no (green). Majority of participants (65%) were not aware that Oolong tea reduces obesity (green).

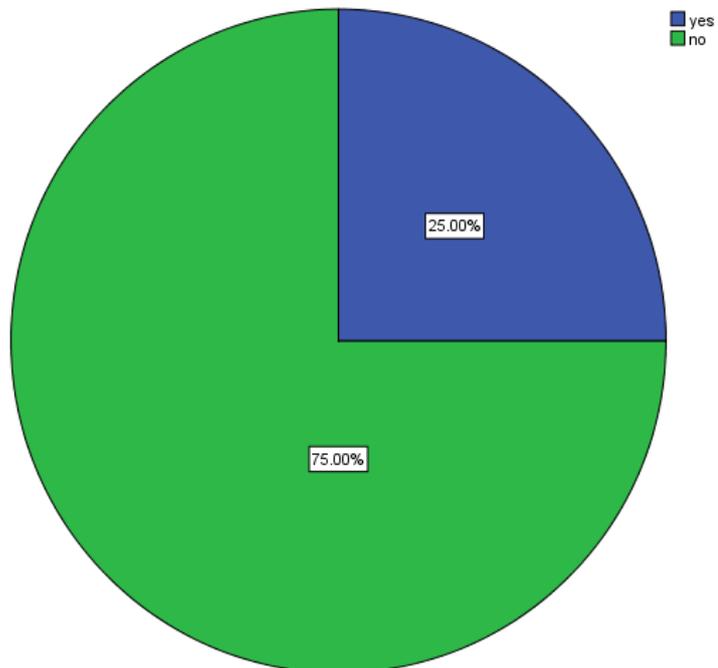


Figure 6: Pie Chart representing the percentage of distribution of response on awareness on oolong tea helps in tooth development.. 25%-yes (blue) and 75%-no (green). Majority of participants (75%) were not aware that Oolong tea helps in tooth development (green).

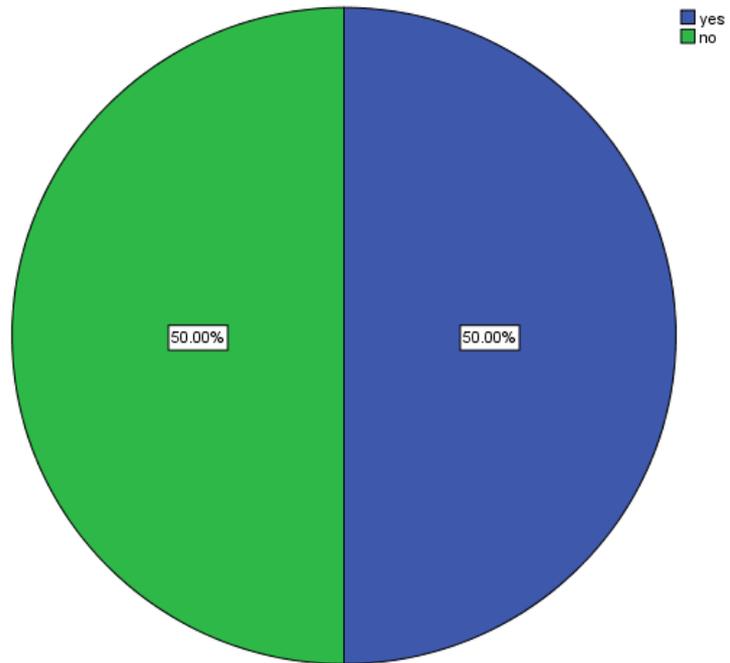


Figure 7: Pie Chart representing the percentage of distribution of response on awareness on oolong tea can be preferred for daibetic patient. 50%-yes (blue) and 50%-no (green). However no difference in responses.

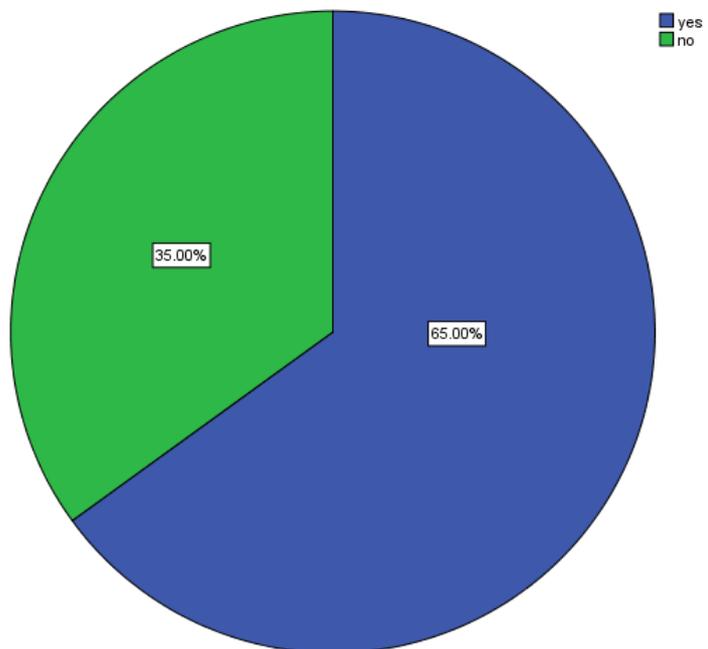


Figure 8: Pie Chart representing the percentage of distribution of response on awareness on oolong tea is good for oral health. 65%-yes (blue) and 35%-no (green). Majority of participants (65%) were aware that Oolong tea helps to maintain oral health (blue).

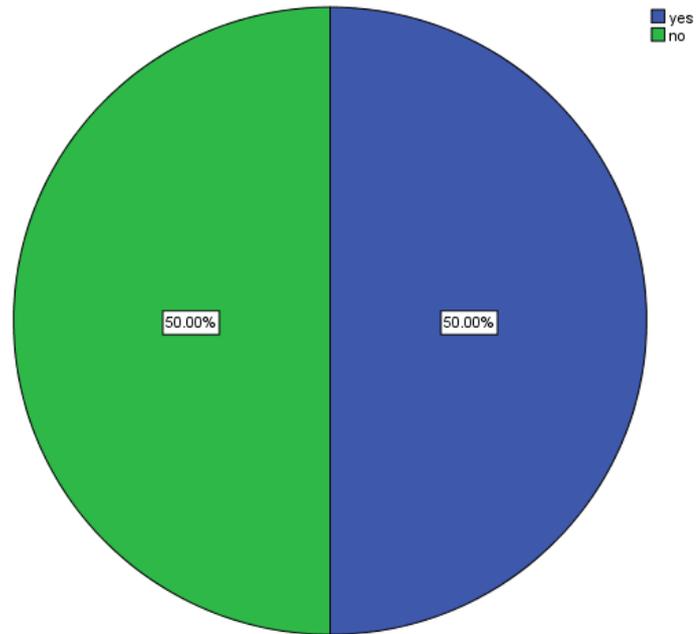


Figure 9: Pie Chart representing the percentage of distribution of response on awareness on overconsumption of Oolong tea causes sleeplessness as a side effect. 50%-yes (blue) and 50%-no (green). However no difference in responses.

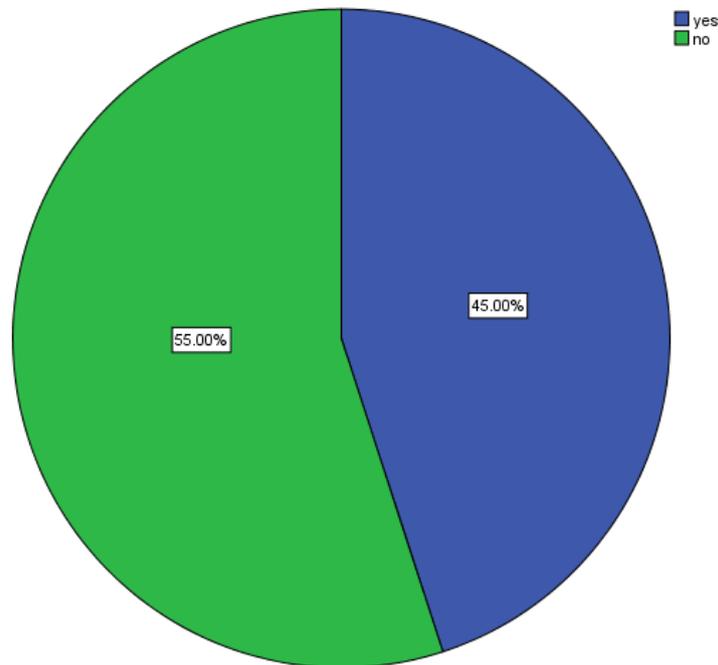
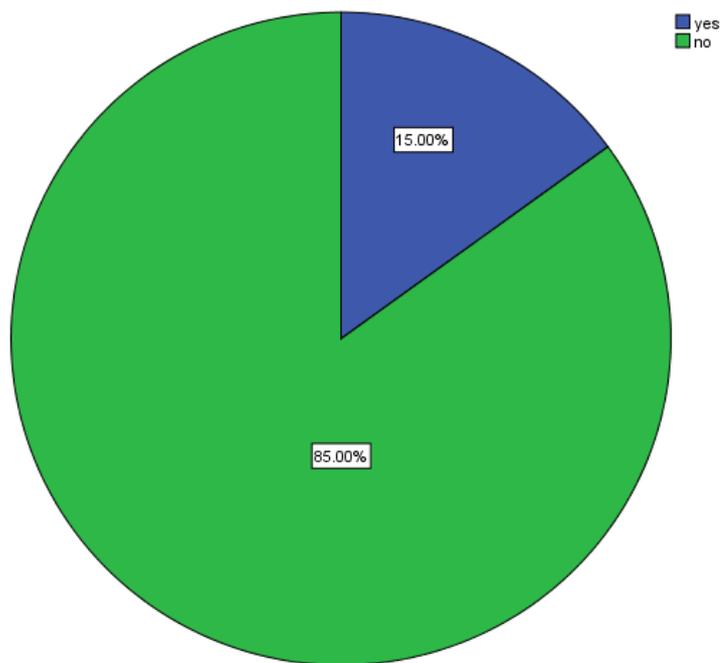


Figure 10: Pie Chart representing the percentage of distribution of response on awareness on overconsumption of Oolong tea causes nervousness as a side effect. 45%-yes (blue) and 55%-no (green). Majority of participants (55%) were not aware that overconsumption of Oolong tea causes nervousness as a side effect (green)



1.
 Figure 11: Pie Chart representing the percentage of distribution of response on awareness on overconsumption of Oolong tea causes headache as a side effect. 15%-yes (blue) and 85%-no (green). Majority of participants (85%) were not aware that overconsumption of Oolong tea causes headache as a side effect (green).

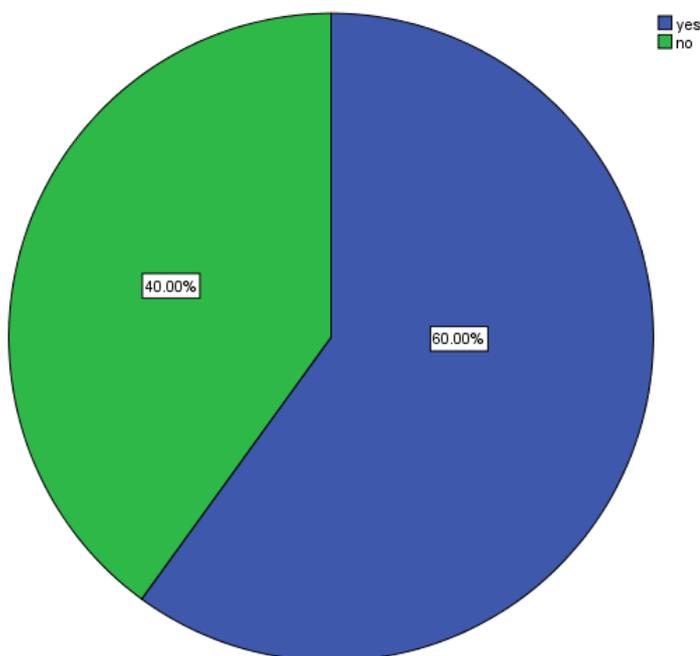


Figure 12: Pie Chart representing the percentage of distribution of response on awareness on oolong tea reduces cholesterol and risk of heart diseases. 60%-yes (blue) and 40%-no (green). Majority of participants (60%) were aware that oolong tea reduces cholesterol and risk of heart diseases (blue).

CONCLUSION

From this survey, it is evident that most of the dental students are not aware about the health of oolong tea. Nowadays many diseases are becoming

prevalent among the population, certain natural products can prevent us from such chronic diseases one among that is the Oolong tea which has many health benefits. It also promotes tooth development and reduction of cholesterol level in the body. Hence it is necessary for people to be aware of it to use it in their daily life and prevent themselves from chronic diseases.

CONFLICT OF INTEREST

The author declares that there was no conflict of interest in the present study.

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