

# A Study Conducted to Know about Benefits of Cocoa and Dark Chocolate on Dental Students in Khammam

Navya Mora<sup>1</sup>, K. V. N. R. Pratap<sup>2</sup>, T. Madhavi Padma<sup>3</sup>, V. Shiva Kalyan<sup>4</sup>, P. Srikanth<sup>5</sup>

<sup>1</sup>Student (BDS), Department of Public Health Dentistry, Mamata Dental College, Khammam, India

<sup>2</sup>Professor & HoD, Department of Public Health Dentistry, Mamata Dental College, Khammam, India

<sup>3</sup>Professor, Department of Public Health Dentistry, Mamata Dental College, Khammam, India

<sup>4</sup>Reader, Department of Public Health Dentistry, Mamata Dental College, Khammam, India

<sup>5</sup>Lecturer, Department of Public Health Dentistry, Mamata Dental College, Khammam, India

**Abstract:** Cocoa beans are rich source of polyphenols, contributing about 10% of the dry weight of whole bean and its derivative chocolate, particularly dark chocolate, is considered one of the major contributors of antioxidants to the American diet after fruits and vegetables. Cocoa contains more Phenolic antioxidants than most foods. Benefits of moderate cocoa or dark chocolate consumption likely outweigh the risks.

**Keywords:** cocoa, dark chocolate

## 1. Introduction

Phenolic antioxidants are present more in cocoa comparatively than the other foods. Antioxidant effects present in cocoa may directly influence insulin resistance, reduces the risk for diabetes. In topical preparations, it can protect skin from oxidative damage through UV radiations. The predominant antioxidant activity is due to flavanoids, catechin, epicatechin and procyanidins, Beneficial effects on satiety, cognitive function and mood are associated with consumption of Cocoa.

Cote d'Ivoire is the world's largest cocoa bean producing country. Cocoa is derived from the tree the obromacacao. Cocoa is obtained through dried and fully fermented fatty seed of fruit of the obroma cocoa. The paste made from ground, roasted shelled, fermented cocoa beans is cocoa liquor. By removing some of the cocoa butter from the liquor cocoa powder is prepared. Cocoa liquor, cocoa butter and sugar are combined to prepare the chocolate Which is a solid food. Dark chocolate or white chocolate depends on the proportion of Cocoa liquor.

Consumption of dark chocolate is more among the students to relieve stress. There are many advantages of dark chocolate on moderate consumption. So, to estimate how many people know those beneficial effects of dark chocolate.

## 2. Methodology

Cross sectional method using questionnaire was used to collect data from dental students in Khammam.

Permission was taken from the head of the department, department of Public health dentistry, questionnaire is explained and informed consent was taken prior to the study from study objects.

Questionnaires framed based on related articles are distributed among 20 students to know the reliability of questionnaires.

**Inclusion criteria:**

All the 4<sup>th</sup> year students and interns who are present during the day of the survey were included in the study. The duration of the study was from 10/4/19 to 13/4/19.

**Exclusion criteria:**

Students who are absent during the day of the survey and not willing to participate were excluded.

**Study procedure:**

The study was conducted among 202 dental students. Questionnaires was distributed to 4<sup>th</sup> bds students and interns during their working hours 9:00 am to 4:00 pm. A questionnaire consisting of 20 questions to know about the dental students perception towards benefits of dark chocolate.

## 3. Results

This study was conducted among 202 students, among these majority (69.3%) are females. Majority were interns (58.4%) and fourth years are about (41.6%).

Gender	Frequency	Percentage
Male	62	30.7%
Female	140	69.3%

Year	Frequency	Percentage
Interns	118	58.4%
Final BDS	84	41.6%

	Frequency	Percentage
Yes	164	81.2%
No	38	18.8%

In this above table 81.2% students like to eat chocolates and 18.8% don't like to eat dark chocolates.

	Frequency	Percentage
Yes	144	71.3%
No	58	28.7%

In this above table 71.3% students that consumption of dark chocolate has cardiovascular beneficial effects and 28.7% students do not know the beneficial effects.

	Frequency	Percentage
30-60 gms	80	39.6%
70-100 gms	50	24.8%
40-100gms	72	35.6%

In the above table 39.6% of students know the daily recommended intake of dark chocolate and the other students do not know.

	Frequency	Percentage
Yes	141	70.1%
No	60	29.9%

In the above table 70.1% of students know that the cocoa contains more Phenolic antioxidants and 29.9% of students do not know.

#### 4. Discussion

Dark chocolate has many beneficial effects which is consumed commonly all around the world. A survey was

conducted among 202 dental students in a dental college in the Khammam district. Most of the students consume dark chocolate and they know beneficial effects of the dark chocolate.

Data was collected from 202 students of age group 21-26 years. The survey revealed that 81.2% of students like to eat dark chocolates and 18.8 %don't like to eat. Majority ( 71.3 %) of them know the beneficial effects of dark chocolate. Majority (70.1%) know that Phenolic antioxidants are present in the dark chocolate. But majority (60.4%) students do not know the daily recommended amount of dark chocolate.

#### 5. Conclusion

After conducting the survey, I came to know that most of the students like to eat chocolates and they know the beneficial effects of the dark chocolate like insulin, resistance, decrease in blood pressure, weight gain, etc.

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