CAFFEINE: A CROSS-SECTIONAL ANALYSIS OF CAFFEINE INTAKE IN KARACHI, PAKISTAN

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خلاصہ

فوائد نقصانات: کیفین (Caffeine) کے بے شمار فائدے ہیں۔ یہ یادداشت بڑھاتا ہیں۔ کام کی استعداد میں اضافہ کرتا ہے۔ میٹا بولزم (Metabolism) بڑھانے کا سبب بنتا ہے۔ موٹاپا کم کرتا ہے۔ اس کا زیادہ استعمال انسان کے لئے نقصان کا زریعہ بھی بنتا ہے۔ بہت ساری مشروبات میں کیفیں پایا جاتا ہے جیسا کہ چائے، کافی اور دیگر انرجی مشروبات وغیرہ وغیرہ۔

سروے کا مقصد: اس مطالعاتی سروے کا مقصد یہ جاننا ہے کہ لوگ عام طور پر اپنی روزمرہ زندگی میں کیفین کی کتنی مقدار استعمال کرتے ہیں جس سے لوگوں کو کتنا فائدہ اور نقصان پہنچتا ہے۔

طریقہ کار: یہ سروے (Survey) کراچی کے مختلف علاقوں کے رہائش پذیر افراد سے حاصل کیا گیا ہے۔

حاصل شدہ نتائج: اس سروے کے دلچسپ نتائج برآمد ہوئے ہے۔ کراچی کے رہائشی اپنی روزمرہ کی مختلف مشروبات کے استعمال میں مرد حضرات (66%) چائے استعمال کرتے ہیں جبکہ عورتیں (86%) چائے استعمال کرتی ہیں۔ مرد حضرات 66% میں 40% صبح کے وقت استعمال کرتے ہیں جبکہ 73% فیصد عورتیں دن بھر میں جب تھکاوٹ محسوس کرتی ہیں تو چائے پیتی ہیں۔ زیادہ تر مرد اور عورتیں ایک دن میں اوسطاً دو پیالہ کیفین استعمال کرتی ہیں۔ اور اگر ان عورتوں اور مردوں کو دن بھر میں ایک کپ بھی میسر نہ آئے تو وہ تھکاوٹ، جسمانی درد اور خواص میں مبتلا پائے جاتے ہیں۔

Abstract

Caffeine has many benefits. It improves memory, improves work output, increases metabolic rate, increases burning of fat, good for muscle, but it addicts the person. When a person takes high amount of caffeine it shows some adverse effect. So also, always take caffeine in recommended amount. There are many beverages which contain caffeine like tea, coffee, energy drinks etc.

The aim of study and taking the survey is to estimate the rate of caffeine used by public and educate the public about the advantage and disadvantage of caffeine. A cross sectional analysis of caffeine intake in Karachi, Pakistan. Data was collected from 1500 male and female around Karachi.

A survey was conducted in different areas of Karachi which shows that most used caffeine beverages is tea by male (66%) and female (86%).and it is usually mostly taking in morning by male (40%) while most of female take caffeine when she gets tried (73%). Mostly male and female take 2 cups of caffeine in daily routine (i.e. 40%). And when caffeine is not taken by male and female then they experience dizziness, body pain but mostly suffer from headache.

Introduction

Caffeine (1,3,7 trimethyl xanthine) is a natural alkaloid formed in coffee beans, tea leaves, cocoa beans, Cola nuts and other plants. It is possibly the much commonly use source in all around the world for pain remedies, headache and over the counter stimulant. (Murphy, S. J., & Benjamin, C. P. 1981; Carrillo, J. A., & Benitez, J. 1996; Dlugosz, L., & Bracken, M. B. 1992)According to research, American adult consume the greater source of caffeine from coffee i.e. 61-74% than from tea leaves i.e.16-32% where as American children use soft drinks and chocolates as the great sources of caffeine diet. Caffeine is the fundamental substance of Coffee,tea,cola and Cocoa or chocolates which contains 55-98mg/100ml, 21-74mg/100ml, 8-20mg/100ml and 4-21mg/100g of caffeine respectively.(Barone, J. J., & Roberts, H. R. 1996; Chan, J. M., Pietinen et al 2000; Tanda, G., & Goldberg, S. R. 2000). Theamount of caffeine per serving depends on the method of preparation and particle size use in coffee and tea (Stavric 1992). The beverages which contain caffeine are following:Coffee, Tea, Cappuccino, Soft Drinks, Energy Drinks. Caffeine is a familiar tonic that is added as an element to various carbonated sodas. Due to provoking properties, everybody wants to drink additional quantity of caffeine beverages. Caffeine is purposefully added as constituent in many soft drinks, including colas, pepper-type beverages, and lemon beverages.(James, J. E. 1991; Benowitz, N. L. 1990) Coffee is a drink which is ready from the coffee beans. Usually, a five-ounce cup

(150ml) of coffee, instant and black tea contains 120, 70 and 50 mg of caffeine respectively.(Chou, K. H., &Bell, L. N. 2007; McCusker, R. R et al 2006). Tea leaves have more strength of the caffeine as compare to coffee beans. Green tea has antioxidant property and it help body metabolism body and also help in fat reduction.(Wang, X., & Lim, L. T. 2014;Frary et al 2005).Cocoa beans are utilized to create chocolate and chocolate bars which can comprise a high measure of caffeine(Bell et al 1996).

The aim of survey is to estimate the percentage of taking caffeine by public (male or female both) and what they feel changing when they don't take caffeine. And which types of caffeine beverages taking by public. The aim of this survey also educates the normal public what is benefit and disadvantage of taking caffeine.

Materials and Method

Site of study

For the current investigation, we carried a standardized survey to determine the prevalence of caffeine intake in Karachi, Pakistan.

Sample size: Total 1500 completed surveys were collected.

Pattern of Study

Survey consists of multiples choice questions (MCQs) which were taken by public of Karachi. Simple English language used in survey form, which was easily understood by public. This survey was taking from both genders (i.e. male and female).

Results and Discussion

This article based on four different categories. The first category is of different caffeine beverages taking by male and female, the highest consumption of caffeine in male has been taken by tea (66%), coffee (21%) then energy drink (13%), as shown in Table 1. While in female highest utilization of caffeine has been taken tea (86%), coffee (12%) and energy drink (2%), presented in Table 2.Second category is amount of caffeine consumed by both genders per day, the result shown that male utilized 1 cup (26%), 2 cups (40%), 3cups (8%) and 4 cups (26%) in daily routine, as shown in Table 3while female utilized 1 cup (33%), 2 cups (40%), 3cups (7%) and 4 cups (20%) in daily routine, as shown in Table 4.

Third category is how much consumption of caffeine on daily bases or occasional bases in both genders, the results shown that male utilized caffeine when tried (20%), in morning and evening (33%), in morning (40%), and in evening (7%), as shown in Table 5. while female takes caffeine when tried (46%), in morning and evening (30%), in morning (15%), and in evening (9%), as shown in Table 6.

The fourth category is what were the changes that they experienced when they don't consume caffeine, the results shown that when male don't take caffeine he feels dizziness (20%), body pain (30%) and headache (50%), as shown in Table 7 while when female don't take caffeine she feels dizziness (23%), body pain (25%) and headache (52%), as shown in Table 8.

Conclusion

The survey has been conducted in different area of Karachi which showed that the highest consumption of caffeine intake by male and female is by tea and the male usually utilized it in the morning while female utilized they get tired and they utilized two cups of caffeine on daily bases. Caffeine has ability to boost you mind, help in burning fat, improve your work output but it addicts the person, when caffeine is not taken by male and female they experience headache. So, caffeine should be taken in recommended amount and should not be taken in exceed amount.

Table 1.Consumption of caffeine beverages in male

Consumption of caffeine beverage	Percentage (%)
Tea	66
coffee	21
Energy drink	13

Table 2. Consumption of caffeine beverages in female.

Consumption of caffeine beverages	Percentage(%)
Tea	86
coffee	12
Energy drink	2

Table 3. Amount of caffeine consumed daily by male.

Number of cups	Percentage(%)
1 cup	33
2 cups	40
3 cups	7
It depends	20

Table 4. Amount of caffeine consumed daily by female.

Number of cups	Percentage(%)
1 cup	26
2 cups	40
3 cups	8
It depends	26

Table 5. Utilization of caffeine on daily or occasional bases in males

Utilization of caffeine	Percentage
When tired	20%
Morning and evening	33%
Morning	40%
Evening	7%

Table 6.Utilization of caffeine on daily or occasional bases in females

Utilization of caffeine	Percentage
When tired	46%
Morning and evening	30%
Morning	15%
Evening	9%

Table 7. Symptoms experience when male doesn't consume caffeine.

Experiences	Percentage (%)
Dizziness	20
Body pain	30
Headache	50

Table 8. Symptoms experience when female doesn't consume caffeine.

Experiences	Percentage (%)
Dizziness	23
Body pain	25
Headache	52

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