

## **PATTERN OF HOT TEA CONSUMPTION AND RELATED HARMFUL EFFECTS OBSERVED AT CAMPUS C.V.A.S. - NAVANIA, UDAIPUR (INDIA)**

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**Abstract:** The present survey was done to understand the behavior, pattern and adverse effects observed due to regular consumption of hot tea as caffeine source among the students of campus C.V.A.S. Navania (Udaipur). A total of 300 young students were selected which includes 200 boys and 100 girls. The results of the survey show that 89% of the students were consuming hot tea on regular basis. The rate of consumption increases during the winter, working and examination days of the campus. A large group of students also shows some adverse effects too due to tea consumption. Future research may be carried out to assess the effect of hot tea consumption in young ones. This research provides basics about the pattern and health issues due to tea consumption.

**Keywords:** Health issues, Caffeine, Hot tea, Students.

### **Introduction**

Tea is the most widely consumed beverage in India as well as world after water. Indians consumes around 25% of the total tea production of world yearly. There present different forms of tea that served all over the world including hot tea, black tea, ice tea, green tea, lemon tea, yellow tea, hot milk tea and many more. But in India hot tea (hot milked tea) is most widely served, most of the population of country starts their day with hot tea sips. Tea is easily available, cheap, palatable and addictive in nature that make it more popular among India Society. Anybody can found a tea stall very easily at any corner of Indian local markets and at any rural as well as urban area. Habitual daily consumption of tea is also very common in India.

There are several health benefits of tea with a few of its adverse effects. The new researcher's places tea second only to water as the healthiest hydration fluid in the world [1]. Tea contains L-theanine, flavonoids, fluoride, theanine and low levels of caffeine which together may have positive effects in aiding individuals to keep alert and healthy. Studies have shown that consuming a few cups of tea during the day helped to sustain alertness [2] [3]. Rather than

alertness it also hydrate body as well as prevents body from a number of diseases. Laboratory tests generally show that tea flavonoids stimulate normal cell turnover and inhibit tumor development [4]. The addition of milk in tea is now the culture of Indians. The good health effects of tea on vascular functioning of body, got counteracts with milk. The biological activity of tea in terms of upgrading of endothelial function prohibited completely with the addition of milk into black tea [5]. Tea is also a good source of caffeine, which is an alkaloid that can be found in varying quantities in coffee, tea, chocolate and cola based drinks. The amount of caffeine present in tea depends upon type, brewing time and amount of tea. In general, the amount of caffeine present in a cup (190ml) of tea and coffee is 50mg and 75-100mg respectively [6] [7]. Caffeine pharmacologically effects on central nervous system, gastrointestinal, heart, central & peripheral vasculature, renal and respiratory system. Increased evidences also found related to caffeine consumption such as increased heart rate and blood pressure [8] [9], sleep deprivation [10], urticaria (severe allergic reaction) [11], headaches [12], central nervous systems disorders, vasodilation, trembling, seizures [8] and increased body temperature [13].

The present study on the pattern of tea consumption and relative adverse effects was done at campus of College of Veterinary and Animal Science, Navania Vallabh Nagar – Udaipur (24° 39' 15.2"N & 74° 01' 26.8"E). The aim of survey was to find prevalence and habituality among students of campus on tea during their routine days as well as extra working days (exams, sports etc.) of college life. The present study was done also to check the correlated factors of tea drinking among young students of particular college campus by using a validated self-reported questionnaire.

### **Methodology**

A total of 300 students including 100 girls & 200 boys of college have participated in the survey. The selection of the students was done on randomly basis. The whole survey was done during the months October and November of 2016. All the respondents involved in survey were between the aged of 18–25 years. A total of 36 questions printed format was given to respondents out which 12 were on consumption pattern of tea, 7 were based on believes about the tea. Remaining 6 were about the habitual information followed by 11 questions about the adverse effects observed after tea consumption. The students in different batches (not more than twenty) were instructed to fill their answers on the given printed format. The students were advised to not talk or discuss with each other during the whole sessions. There have been numerous studies previously about the link between tea drinking,

BMI, sleep and other health issues. Previously utmost data were collected from the middle or old age individuals in the community when they received a health examination [14]. [15][16] Prior studies also could not interpret the causal connection of tea drinking and linked health factors.

### **Result and Discussion**

The result of the study revealed that 88.67% of the students in the campus used to drink tea, while remaining 5.3% boys and 6.0% girls never take tea. Only 21.33% of the respondents were irregular to consume hot tea. The most of respondent's 59.33% were habitual to tea or take tea on daily basis. Moreover, 34.66% of the students start their day with sip of tea whereas only 9.33% like to take tea before bed time. According to the responses of all 300 respondents the pattern of the tea consumption is presented in **Table 1**. Reported a huge variation of tea consumption pattern between boys and girls. Maximum girls take tea during headache followed by exam time whereas boys drink more tea during winter season followed by headache condition. **Table 2** revealed the monthly consumption of hot tea by boys and girls separately. Maximum 47% girls consumes a single cup of tea daily whereas 44% of the boys consumed tea twice in a day. So the maximum students of the campus consumes 1-2 cups of tea on daily basis. The responses of questions about believes on tea by respondents are represented in **Table 3**. The maximum 57% of boys believes that, tea helps them to keep awake while 50% of the girls believes that tea helps them to concentrate on study. The least number of respondents (11% boys and 7% girls) think that tea helps to lose weight. **Figure 1** represents the responses of students about sings without tea consumption that shows habituallity of the students of particular campus. The most of the students feel craving, fatigue and can't concentrate on study without tea. **Figure 2** shows the results about the adverse effects of tea consumption in the respondents. The maximum 53% boys feels excitement and 50% girls can't sleep after tea consumption respectively. None of the girl feel headache and allergic signs due to tea consumption while 4% of the boys were positive for the both adverse effects.

Further studies can be done to understand the relation between regular tea consumption and harmful effects on health of consumers.

**Table 1: Positive responses of students of campus C.V.A.S. Navania, Udaipur about hot tea consumption pattern**

S. No.	Pattern	Total (%)	Boys (%)	Girls (%)
1.	Take more tea during exams	46	41	57
2.	Take more tea in winter season	51	52	49
3.	Used to take tea during Headache	50	42	66
4.	Used to take tea only during illness	14	9	23
5.	Used to take tea/coffee before bed time (Night)	7	6	9

(N=300, Girls=100, Boys=200)

**Table 2: Quantity of hot tea consumed by students of campus C.V.A.S. Navania, Udaipur**

S. No.	Number of Cups consumed per month	Total (%)	Girls (%)	Boys (%)
1.	0	18	13	7
2.	1-30	32	47	20
3.	31-60	39	28	44
4.	61-90	12	6	16
5.	91-120	3	6	5
6.	121- 150	2	-	2
7.	>150	6	-	6

(N=300, Girls=100, Boys=200)

**Table 3: The positive responses of students of campus C.V.A.S. Navania, Udaipur about believes of respondents behind tea consumption**

S. No.	Students Believes that:	Total (%)	Boys (%)	Girls (%)
1.	Tea will wake me up in the morning	49	57	32
2.	Tea will help to keep me awake	52	52	51
3.	Tea will help me to concentrate when studying	47	46	50
4.	Tea is addictive in nature	24	22	28
5.	Tea enhances performance	31	35	24
6.	Tea will help me to lose weight	10	11	7
7.	Tea can harm my health	47	49	33

(N=300, Girls=100, Boys=200)

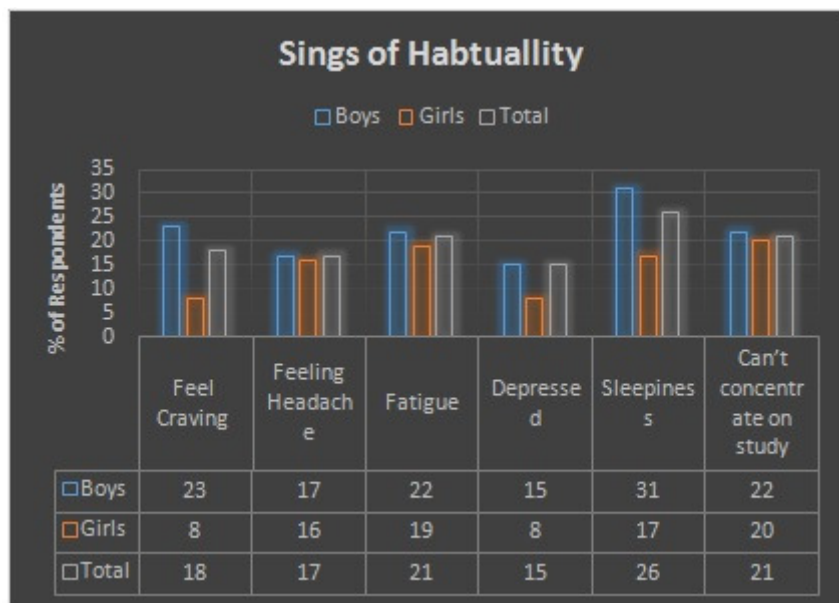
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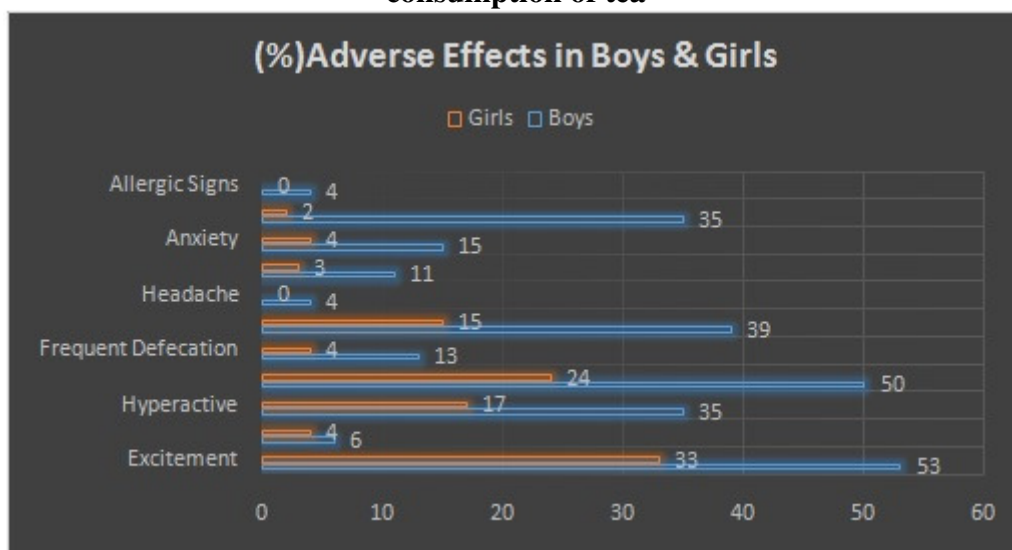
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**Figure 1: Representing the positive responses of students about the sings of habituallity on tea**



(N=300, Girls=100, Boys=200)

**Figure 2: Representing the positive responses of students about the adverse effects after consumption of tea**



(N=300, Girls=100, Boys=200)