

# Tea Drinking Attitude and Tea Addiction Symptoms among Kenyans

Joyzy Pius Egunjobi, Ph.D., Dr.AD<sup>1</sup>, Stephen Asatsa, Ph.D.<sup>2</sup>

<sup>1</sup>*Psycho-Spiritual Institute (an affiliate of the Catholic University of Eastern Africa)*

<sup>2</sup>*Department of Counseling Psychology, Catholic University of Eastern Africa, Kenya*

**Abstract:** Kenyans are known to consume lots of tea. This study investigated Kenyans' tea drinking attitude and the possible traces of tea addiction. A correlation design was employed by using an online questionnaire to obtain information from 335 respondents who participated through voluntary sampling. The data were analyzed using descriptive inferential statistics. It was found that majority of Kenyans (95.3%) are tea drinkers with about 76.4% moderately consuming 1 to 3 cups of tea daily in the morning hours. There was no gender disparity in tea consumption. Addiction symptoms were experienced by 41% of Kenyan tea drinkers who experienced withdrawal symptoms such as headache, tiredness, and disorientation, 49.1% craving for tea, 16.5% unable to stop drinking tea, and 36.9% feel stimulated by drinking tea. There was a significant positive correlation between the number of teacups consumed per day and addiction symptoms at Pearson correlation coefficient  $r(335) = .355, p < .001$ . It is recommended that while tea drinking is legal, those who experience loss of control over tea drinking and withdrawal symptoms should seek professional help.

**Keywords:** Tea, Tea drinking habit, Tea Addiction, Tea Consumption, Chai

## I. INTRODUCTION

Tea addiction is not a common topic of discussion or a problem that raises serious concern. The reason is not far-fetched; tea is one of the commonest available low-cost beverages apart from water. Tea is consumed almost by everyone, and it is legal despite the psychoactive substance (caffeine) in it. Due to its high demand, it is one of the major components of world beverage market. Called *Chai* (Swahili Language) in Kenya, tea as a cash crop is one of Kenya's main exports more than Sri Lanka, India, and China (All Things Kenyan, n.d). Kenya produces black tea, green tea, yellow tea, and white tea. Apart from its economic value, tea is very present in many Kenyan homes and is readily consumed by most Kenyans. As a beverage choice of Kenyans, it is served throughout the day; at breakfast, morning break, after lunch, afternoon tea, after dinner, not just as part of meal accompaniment but also for recreation and socialization.

The tea consumed locally in Kenya amounted to about 11.3 million kilograms from January to April 2021 (Faria, 2021). Faria continue to note that in 2020 alone, a total of 40 million kilograms were sold domestically. This is because Kenya is one of the largest tea producers in the world. Although, according to Mr Muita, as cited by Wainainah (2017), Kenyans are not consuming as much tea as the country

exports, that has not hindered the steady growth in consumption over the years. The increase in consumption is in both the black tea which is produced in Kenya and in flavored teas. Kajilwa (2021) however, noted that, drinking black tea is seen as a sign of poverty in a typical Kenyan home setting.

Tea might be many Kenyans' favorite beverage of choice (Kajilwa, 2021). Despite Kenyans' long-standing tradition of growing coffee for export, Kenyans have traditionally favored tea, as part of a remnant of British colonization (Givens, 2019). Kenyans drink tea any time of the day at home, it accompanies, and it is served as a meal, it is offered to visitors, used for socialization, and it is used for relaxation. In some Kenyan homes, not drinking tea or offering tea may seem to be a "mortal sin".

In a 2017 custom report compiled by Euromonitor International for: Trade for Development Centre of the Belgian development agency Fairtrade Africa, it was discovered that tea, as a hot beverage, is regularly consumed both at home, at work, and in restaurants as part of a meal on their own or as take-aways. This report also presented a survey result which showed and confirmed Kenyans as heavy tea drinkers, with 74% of Kenyans drinking at least three cups of tea a day, and an average of 4.6 cups per day. Also, it was found that most tea drinkers in Kenya drink one to two cups of tea in the morning (Euromonitor International, 2017).

Many people consume tea without the knowledge of its health benefit and consequences. Tea consumption has shown to be useful for prevention of many debilitating human diseases relating to cardiovascular and metabolic health. Tea is an anti-aging, antidiabetic and it helps to fight different types of cancer.

Notwithstanding, life experiences show that tea consumption can be habitual, and it can be a substance of dependence for some to function. This is possible because tea contains some stimulants; the commonest of which is caffeine which can also be derived in coffee, soft drinks and some chocolates. Like any other substance of abuse, caffeine can be addictive because of its stimulating effect.

Tea contains substances such as theobromine and theophylline (Gunnars, 2014), proanthocyanidins, polymer chains of flavonoids (catechins), and theanine ("What is in Tea?", n.d.). All these, like any other psychoactive drugs, target and have some very interesting effects on the brain. More notably is

that all teas from the *Camellia sinensis* plant contain caffeine. Caffeine is a central nervous system stimulant which can temporarily make one feel more awake and energetic but can also cause jittering. Caffeine withdrawal or overdose can cause a range of physical and psychological problems such as tiredness and headaches.

Caffeine is regarded as the most commonly used drug in the world (Meredith, Juliano, Hughes & Griffiths, 2013). It is believed that some 3 out of 4 regular caffeine users are addicted to it ("25 Caffeine Addiction Statistics", n.d.). This agrees with those who believe that 75% of caffeine users are addicted to it ("51 Caffeine Statistics", n.d.). Thus, for the World Health Organization, caffeine dependence is a clinical disorder (Meredith, et al., 2013).

A 6 oz. cup Tea brewed for one minute contains in the average 25mg of caffeine, if brewed for 3-minutes, 40mg of caffeine is expected, and if brewed for 5 minutes, an average of 60mg of caffeine is expected (Egunjobi, 2010). According to Meredith, et al. (2013), the World Health Organization has already recognized a diagnosis of Caffeine Dependence Syndrome in the *ICD-10*. However, the American Psychiatric Association (2013) feel there is need for more research in determining the clinical significance of Caffeine Use Disorder before the diagnosis may be recognized in the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* as a clinical disorder.

For a condition to be considered an addiction, as noted by Mclellan (2017), at least two of the following criteria must be met: (1) Taking the substance in larger amounts or for longer than you're meant to, (2) Wanting to cut down or stop using the substance but not managing to, (3) Spending a lot of time getting, using, or recovering from use of the substance, (4) Cravings and urges to use the substance, (5) Not managing to do what you should at work, home, or school because of substance use, (6) Continuing to use, even when it causes problems in relationships, (7) Giving up important social, occupational, or recreational activities because of substance use, (8) Using substances again and again, even when it puts you in danger, (9) Continuing to use, even when you know you have a physical or psychological problem that could have been caused or made worse by the substance, (10) Needing more of the substance to get the effect you want (tolerance), (11) Development of withdrawal symptoms, which can be relieved by taking more of the substance.

#### *Purpose of the Study*

The purpose of this study was to investigate the drinking attitude of Kenyans as it relates to possible tea addiction symptoms.

#### *Hypothesis*

H<sub>0</sub> There is no relationship between the number of cups of tea consumed daily and addiction symptoms.

## II. METHODOLOGY

A correlation design was employed to investigate the Kenya population for tea drinking attitude and possible traces of tea addiction symptoms. Through voluntary sampling, 335 Kenyans responded to the Google Forms questionnaire administered online via WhatsApp. The data collected were analyzed through descriptive and inferential statistics. These were presented in percentages in tables and pie charts. Pearson correlation coefficient was used to test the research hypothesis. The respondents below the age of 17 were guided by their parents/guidance.

## III. RESULTS

The data was analyzed to present the demography, tea drinking behavior, tea addiction symptoms, and the relationship between the number of teacups consumed per day and addiction symptoms.

#### *Demography of the Respondents*

The demographic information includes age, gender, educational levels, and the employment status of the respondents. Table 1 presents the age and gender of the respondents.

Table 1. Age and Gender

Age	Gender		Total %
	Female %	Male %	
11 - 20	13.8	5.7	<b>19.5</b>
21 - 30	12.6	8.0	<b>20.6</b>
31 - 65	38.2	19.2	<b>57.4</b>
Above 65	1.5	1.0	<b>2.5</b>
<b>Total %</b>	<b>66.1</b>	<b>33.9</b>	<b>100</b>

Majority (80.5%) of the respondents were 21 years or older with more females (66.1%) than male. The gender disparity was not surprising considering an online survey. Smith (2008) had reported that studies by Kwak and Radler (2002), Sax et al. (2004), and Underwood, Kim, and Mattiea (2000) revealed that women more than men respond more to online survey as they do in traditional survey. In terms of the highest level of education attained, about 3.6% had secondary school education, 3.3% had certificate, 10.5% with diploma, 43.1% had bachelors, 34.4% with masters, and 5.1% attained doctorate degree. Of these 335 respondents, 50.6% reported being employed, 38.8% were unemployed, and 10.6% were students. All these point to the fact that the respondents were old and knowledgeable enough to respond adequately to the questionnaire.

#### *Tea Drinking Behavior*

The study also investigated the tea drinking behaviors in terms of the number of teacups consumed per day, the reasons and period of drinking, and tea drinking by gender. Table 2, Table 3, and Figure 1 represented the responses.

Table 2. Number of Cup of Tea Drank per day and the Reason for Tea Drinking

	Number of cups of Tea per day				Total
	0 %	1 to 3 %	4 to 6 %	7 and above %	
I drink Tea	0	1 to 3	4 to 6	7 and above	Total
Never	4.7	0.0	0.0	0.0	4.7
For pleasure	0.0	39.7	9.0	1.6	50.3
For recreation	0.0	7.1	2.2	0.0	9.3
For socialization	0.0	6.6	0.6	0.3	7.5
To stay active	0.0	19.6	4.0	0.6	24.2
To stay awake	0.0	3.4	0.6	0.0	4.0
<b>Total</b>	<b>4.7</b>	<b>76.4</b>	<b>16.4</b>	<b>2.5</b>	<b>100.0</b>

Table 2 shows that 95.3% of Kenyans drink tea at least once a day. Majority of Kenyan tea drinkers (76.4%) drink between 1 and 3 cups per day with about 18.9% of Kenyan tea drinkers who may be considered as heavy tea drinkers by consuming four or more cups of tea per day. According to Hill (2019), considering the total caffeine content of tea usually falls between 20–60 mg per cup (240 ml), it is advisable not to drink more than about 3 cups (710 ml) per day.

Table 2 also reveals that an average Kenyan tea drinker (50.3%) do so for pleasure. Majority (75%) of those of who drink tea for pleasure drink between one and three cups of tea per day. About 28.2% of tea drinkers in Kenya do so to either stay active or awake even if they consumed one to three teacups per day.

Table 3 also presents the number of cups of tea drank per day by gender.

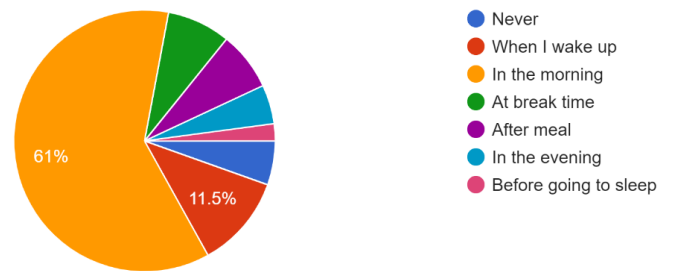
Table 3 Number of Cup of Tea Drank per Day by Gender

Gender	Number of cups of Tea per day				Total %
	0 %	1 to 3 %	4 to 6 %	7 and above %	
Female	2.1	51.2	11.0	1.8	66.1%
Male	2.6	25.2	5.4	0.7	33.9%
<b>Total</b>	<b>4.7</b>	<b>76.4</b>	<b>16.4</b>	<b>2.5</b>	<b>100.0%</b>

It was shown that there is no gender disparity in the quantity of tea consumed when the number of the cups of tea drank is considered per the gender of the participants.

Figure 1 shows that most Kenyan tea drinkers (72.5%) drink mostly in the morning hours of the day.

Figure 1. The Period of the Day Tea is Mostly Drank



Tea Addiction Symptoms

This study also sought the possible addiction symptoms experienced by Kenyan tea drinkers. The symptoms sought were craving/urges to drink tea, experiences of withdrawal symptoms, concern shown because of tea drinking habit or negative consequence, and inability to stop tea drinking despite the withdrawal, the stimulating/high effects of tea, and concerns raised due to the drinking attitude. Table 4 presents the outcomes.

Table 4. Addiction Indicators

	Strongly Disagree %	Disagree %	Neutral %	Agree %	Strongly Agree %	Total %
Withdrawal Symptoms	28.0	29.0	2.0	32.6	8.4	100
Craving for Tea	24.4	11.9	14.6	35.1	14.0	100
Unable to Stop Drinking Tea Despite Negative Effects	47.3	25.4	10.8	11.4	5.1	100
Concerns about Tea Drinking Habit	53.3	25.1	9.3	8.7	3.6	100
Drinking Tea stimulate me	24.4	15.8	22.9	27.7	9.2	100
Drinking Tea makes me High	38	25.7	18.9	13.5	3.9	100

It was revealed that about 41% “strongly agree” and “agree” that they experienced withdrawal symptoms such as headaches (22.6%), tiredness (11.1%), and disorientation (7.2%). About 49.1% “strongly agree” and “agree” that they do crave for tea, 16.5% indicated that they are unable to stop tea drinking, 12.3% noted that significant others have raised concern about their tea drinking behavior, and 36.9% and 17.4% “strongly agree” and “agree” that were respectively stimulated and get high drinking tea.

Relationship between number of Teacups and Addiction Symptoms

It was hypothesized that there is no relationship between the number of teacups consumed per day and addiction symptoms. Pearson correlation was conducted to determine the relationship as found in Table 5.

Table 5. Number of Teacups per Day and Addictive Behavior Indicators

		Teacups	Addiction
Teacups	Pearson Correlation	1	.355**
	Sig. (2-tailed)		.000
	N	335	335
Addiction	Pearson Correlation	.355**	1
	Sig. (2-tailed)	.000	
	N	335	335
**. Correlation is significant at the 0.01 level (2-tailed).			

The Pearson correlation coefficient test revealed that among the Kenyan tea drinkers, there is a significant moderately positive correlation between the number of teacups consumed per day and addictive behaviors at  $r(335) = .355, p < .001$ . This means that the null hypothesis was rejected.

#### IV. DISCUSSIONS

It is not a gain saying that Kenyans love tea and mostly begin their day with it. This study affirms that almost all Kenyans aged 11 and above, irrespective of gender, educational, and socio-economic status drink tea. The colonial influence and the fact that Kenya ranks as one of the world best tea growers could have been responsible for this. Although, they do not consume as much as they grow according to Faria (2021) and Wainainah (2017). Even the poor consume tea regularly that Kajilwa (2021) claimed that, drinking black tea is seen as a sign of poverty. Kenyan tea drinkers drink tea for pleasure, socialization, recreation, and to stay awake or be alert.

This study also revealed that most Kenyan tea drinkers consume tea in the average of 1-3 cups a day. This will be considered as moderate tea drinking. This aligns with the recommendation of Dr Weisburger that it is appropriate to start the day by drinking 2-3 cups till breakfast, and supported by Hill (2019) who saw this as a healthy practice.

Some Kenyans reported experiencing headaches, tiredness, or feeling disoriented if they had not taken a cup of tea a day. These are withdrawal symptoms associated with the psychoactive effect of caffeine in tea. According to Hill (2019), although, 3–4 cups (710–950 ml) of tea daily may have no adverse effects, any tea drinker can experience side effects such as headaches, anxiety, digestive issues, and disrupted sleep patterns. This study showed that people who drink four or more cups of tea per day are two times likely to experience side effects or withdrawal symptoms. Having a withdrawal symptom is one of the indicators of substance use disorders. Withdrawal is the combination of physical and psychological effects experienced by a person after s/he stops using or reduce their intake of a substance such as alcohol, prescription drugs, or recreational drugs (Buddy, 2021). Consuming large

amounts of caffeine (in tea) can lead to caffeine intoxication, and thus can pose a significant health threat to the drinker and may lead to hospitalization (American Psychiatric Association, 2013).

A withdrawal symptom is not the only indication of addiction, craving for the substance of addiction and loss of control over the substance of addiction are also indicators according to ICD 10 (WHO, 1993). This study revealed that about half of Kenyan tea drinkers crave for tea. Cravings, according to Tackett (2021), are normal experience in persons who stopped or have not used the substance of dependence. This can likely make one to experience an urge to use at some point. Urges are relentless, and drug cravings can quickly lead to a relapse if not handled appropriately. Craving for tea spurs an irresistible urge to consume tea, even when one is trying to cut down on the number of cups of tea consumed daily or one doesn't just want to drink for health reasons. However, craving for tea can be an indication for other health challenges aside tea dependency. For example, if one gets sudden, extreme cravings for tea, or gulp down more than 5 cups of tea a day, there is possibility that one's adrenal glands are exhausted or one is having deficiency in vitamin C, iron or phosphorous (Vakil, 2019).

One thing is to crave for tea, another thing is to be able to resist it. While craving is normal for those in recovery, inability to resist is a part to relapse and a prove of addiction. For some Kenyans to indicate powerlessness of the craving for tea is an indication of either the onset of addiction or addiction tendency. Loss of control is the strongest indication of the dawn of addiction to any substances. Griffiths (2013) noted that, irrespective of the theory and model of addiction, and the indicators of addiction, the most theorizing on addiction inclines (implicitly or explicitly) towards "loss of control" as the central (if not fundamental) to addiction. For Kenyan tea drinkers who craves for tea, experiences physical or psychological distress because they haven't consumed tea, whose tea drinking attitudes have raised concern from a significant other, and unable to stop drinking tea, s/he is likely to be addicted to tea.

#### V. CONCLUSION

This study affirms the impression that majority of Kenyans drink tea daily and that some of the Kenyan tea drinkers experience discomfort of a physical and psychological nature if they have not drunk tea a day. Some also experience loss of control over tea drinking. The study also showed that there is a significant relationship between the number of cups of tea consumed and the likelihood to experience addiction symptoms. The individuals who drink more than three cups of tea, experience discomfort when they have not consumed tea, and have lost control over tea drinking are likely to be addicted to tea. These individuals may need professional help.

#### REFERENCES

- [1] All Things Kenyan. (n.d.). Chai Recipe. <https://allthingskenyan.com/countries/kenya/chai-recipe>

- [2] American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders*. Fifth Edition. Washington, DC: American Psychiatric Association.
- [3] Buddy, T. (2021, November 05). What Is Withdrawal? <https://www.verywellmind.com/what-is-withdrawal-how-long-does-it-last-63036>
- [4] Egunjobi, J. P. (2010). *Substance abuse and the youths: Christian perspectives*. N.C: Lulu Press Inc.
- [5] Euromonitor International. (2017, June) *Hot Beverages in Kenya And East Africa: Opportunities for Fairtrade certified tea, coffee and powdered hot drinks brands*. <https://usercontent.one/wp/www.tdc-enabel.be/wp-content/uploads/2020/11/Euromonitor-Executive-Summary-Hot-Beverages-in-East-Africa-2017-12-21.pdf>
- [6] Faria, J. (2021, July 8). Domestic tea consumption in Kenya 2009-2021. In Statista. <https://www.statista.com/statistics/1174360/domestic-tea-consumption-in-kenya/>
- [7] Givens, D. (2019, March 8). How Kenya Is Becoming a Nation of Coffee Drinkers. <https://www.saveur.com/kenya-coffee-trend/>
- [8] Gunnars, K. (2014). 4 Stimulants in tea - more than just caffeine. Retrieved from <https://www.healthline.com/nutrition/stimulants-in-tea>
- [9] Griffiths M. D. (2013). Is "loss of control" always a consequence of addiction? *Frontiers in psychiatry*, 4, 36. <https://doi.org/10.3389/fpsy.2013.00036>
- [10] Hill, A. (2019, November 26). 9 Side Effects of Drinking Too Much Tea. In Healthline. <https://www.healthline.com/nutrition/side-effects-of-tea>
- [11] Kajilwa, G. (2021, June 22). Kenyans' poor tea culture: Blame it on sugar and milk. *The Standard*. <https://www.standardmedia.co.ke/business/financial-standard/article/2001416308/kenyans-poor-tea-culture-blame-it-on-sugar-and-milk>
- [12] Meredith, S. E., Juliano, L. M., Hughes, J. R., & Griffiths, R. R. (2013). Caffeine Use Disorder: A Comprehensive Review and Research Agenda. *Journal of caffeine research*, 3(3), 114-130. doi:10.1089/jcr.2013.0016
- [13] Mclellan, A. T. (2017). Substance Misuse and Substance use Disorders: Why do they Matter in ealthcare?. *Trans The American Clinical and Climatological Association*;128: pp.112-130.
- [14] Smith, W. (2008). Does Gender Influence Online Survey Participation?: A Record-linkage Analysis of University Faculty Online Survey Response Behavior. <https://files.eric.ed.gov/fulltext/ED501717.pdf>
- [15] Tea Association of the USA Inc. (2020). *Tea Fact Sheet – 2019-2020*. [https://www.teausa.com/teausa/images/Tea\\_Fact\\_Sheet\\_2019\\_-\\_2020\\_PCL\\_update\\_3.12.2020.pdf](https://www.teausa.com/teausa/images/Tea_Fact_Sheet_2019_-_2020_PCL_update_3.12.2020.pdf)
- [16] Sanganerla, S. (2013, February 7). 8-10 cups of tea a day ideal for good health. *Business Standard*. [https://www.business-standard.com/article/markets/-8-10-cups-of-tea-a-day-ideal-for-good-health-101072301030\\_1.html](https://www.business-standard.com/article/markets/-8-10-cups-of-tea-a-day-ideal-for-good-health-101072301030_1.html)
- [17] Vakil, B. A. M. (2019, January 22). Food Cravings-What Do They Really Mean? <https://www.medindia.net/patients/lifestyleandwellness/food-cravings-what-do-they-really-mean.htm#:~:text=If%20you%20are%20among%20those,deficiency%20or%20loss%20of%20phosphorus>.
- [18] Wainainah, D. (2017, June 1). Why tea is the new coffee for young, urban Kenyans. In *Business Daily*. <https://www.businessdailyafrica.com/bd/lifestyle/society/why-tea-is-the-new-coffee-for-young-urban-kenyans--2154734>
- [19] What is in Tea? (n.d.) The active ingredients of tea. Retrieved from [https://www.healthstatus.com/health\\_blog/wellness/what-is-in-tea/#ixzz6CY2yjK0q](https://www.healthstatus.com/health_blog/wellness/what-is-in-tea/#ixzz6CY2yjK0q)
- [20] World Health Organization (WHO). (1993). *The ICD-10 classification of mental and behavioural disorders*. World Health Organization.