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Research

Factors Associated with Soft Drink Consumption Habit among Selected 400 Level Students of Babcock University

J. A. Adeyeye¹, E. O. Njoku¹, E. A. Adekanye²

¹Department of Nutrition and Dietetics, Babcock University, Ilishan Remo, Ogun State, Nigeria,

² University of Lagos. Akoka, Lagos.

*Correspondence author: [<joshuaadeyeye@yahoo.com>](mailto:joshuaadeyeye@yahoo.com)

Abstract

*The study was carried out at Babcock University campus to identify the factors responsible for noticeable symptoms associated with the habit of large consumption of carbonated soft drinks among teenagers and adolescent school age students. Collection of data was through structured questionnaire in line with the objectives of the study. A total of 180 questionnaires were administered to students and the results were subjected to descriptive statistics using frequency count and percentages. Pearson multiple correlation range test was done to indicate the relationship that existed among the variables. Highest number of respondents (33%) rated the taste of VIMTO brand of soft drink as a good drink with pleasant taste also the lowest number of respondents (12%) rated the taste of VIMTO as excellent and equally satisfying taste. There was a positive and highly significant ($P < 0.05$) correlation (0.542^{**}) between thirst and frequent urination. This positive correlation indicated that frequent urination among students may be as a result excessive intake of soft drink to quench their frequent thirst. Finally excessive intake of soft drink consumption should be controlled in order to avoid the risks of obesity, diabetes, osteoporosis and heart disease later in life.*

KEY WORDS: noticeable symptoms, Vimto brand, maltina, osteoporosis, teenagers.

INTRODUCTION

Globally, teenagers are in the habit of consuming ever increasing volumes of assorted soft drinks according to the analysis on National Food Consumption survey (Jacobson, 2005). The consumption of non-alcoholic carbonated soda pops among the United States teenagers and the adolescent high school students alone, had exploded over the past 40 years and has more than doubled since 1971 (USDA, 1996). Americans spent more than half billion dollars on sweetened carbonated drinks and a billion on non-carbonated soft drinks, these put together are enough to buy a computer and still maintain a year's worth of internet access card (USDA, 1996). Companies annually produce enough soft drinks to provide about 52.4 gallons to every individual. Also soft drinks are heavily consumed because these companies promote them vigorously and market them in every- where including: the stores, restaurants, gas stations, museums, vending machines, schools and Universities (Jacobson, 2005). Companies spend roughly about one million dollars equivalent on advertising every year and in addition one million dollars on promotional activities that may involve musicians, actors, entertainers and price discounting to attract consumers. Soft drink is a problem not only for what they contain, but for what they push out of the diet to consumers. Besides the refined sugar and acids, other soft drink ingredients are of concern. Caffeine which is added to many of these popular soft drinks is a mildly addictive and stimulating drug (Jacobson, 2005). Frequent consumers of soft drinks may be at higher risk of kidney stones and higher risks of diabetes and heart disease.

STATEMENT OF THE PROBLEM

It has been speculated that heavy consumption of soft drinks may be contributing to the epidemic of obesity worldwide (Ludwig, *et. al.*, 2001). Bowman's (1999) studies also have indicated that soft drink consumption to be positively associated with high energy intake among children and adolescents, which may lead to overweight and is likely to damage the dental health of the children. However, sub-Saharan Africa is not left out as it is experiencing

increasing burden of chronic non-communicable diseases at alarming rate (Mbah and Eme, 2012). Today more than 1.1 billion adults and children worldwide are overweight and 3.12 million of them are obese (WHO, 1994). Several countries of the world have studied the status of diabetes control and management in their population (Loh, *et al.*, 1996, Chuang, *et. al.*, 2002, and Atkins, 2005). However, some Nigeria studies are known to have covered certain section of the population but nationwide data of Nigerian diabetic population is lacking. There are speculations on factors that may be responsible for high consumption rate of soft drink habit among school age children and which may include influencing factors such as: friends and peer group influence, soft drink availability at homes, taste preferences, soft drink consumption habits of parents and television viewing practices (Giammattei, *et. al.*, 2003). However additional research is needed to verify these claims and to identify other factors in relation to the health condition of regular consumers of soft carbonated drinks.

MATERIALS AND METHODS

This study was conducted on the campus of Babcock University in Illisan-Remo, Ogun State. Adolescent 400 level students of four schools: including Babcock Business School (BBS), School of Education and Humanities (EAH), School of Science and Technology (SAT) and School of Nursing were purposely chosen to take part in the study.. A well-structured research questionnaire was used as a tool for data collection in line with the objective of the study. Forty five (45) student respondents from each selected schools were given the questionnaire to indicate their opinion on the subject matter. A total of 536 student respondents participated in the study.

STATISTICAL ANALYSIS

Descriptive statistics involving the use of variables, frequency distributions tables, percentage analysis and mean distributions tables

were used to describe the characteristics of the respondents (SPSS, 2006). Simple correlation coefficient was conducted to find out the relationship that may exist among the variables according to Pearson Range test (1976).

RESULTS AND DISCUSSIONS

The demographic characteristics of the student respondents that participated in the study are indicated in **Table 1**. The table arranged the information on demographic characteristics of respondents under: item, variable, frequency and corresponding percentages. The highest number (59%) respondents were males while (41%) respondents were females. Also the highest number (64%) respondents were in their active age bracket of (17—21) years old, while (2%) respondents were within 16 and below age bracket limits. The highest number (57%) respondents were Christians while (33%) respondents were of Islamic faith. However, the lowest number (9%) respondents belonged to the traditional religion. The highest number (88%) respondents were 400 level Babcock University students of various schools while minority (10%) respondents belonged to 500 level students and (2%) respondents were staff members of the University.

Religion	Christians	307	57.28
	Muslim	179	33.40
	Traditional	50	9.32
Department	SAT	166	30.97
	EAH	174	32.46
	BBS	158	29.47
	NURS	38	7.10
Level	400	476	88.80
	500	50	9.34
	600	10	1.86

- EAH = Education and Humanities
- SAT = Science and Technology
- BBS = Babcock Business School
- NURS = Nursing

The preference and consumption habit of soft drinks by the respondents are presented in **Table 2**. The table classified the information on preference and consumption habit of the respondents under: brands of assorted soft drink, frequency and percentage scores.

Table 2: Soft Drink consumption pattern among the student respondent

Table 1: Demographic characteristics of the respondents

ITEM	VARIABLE	FREQUENCY	PERCENTAGE
Sex	Male	316	59
	Female	220	41
Age	Below 16	10	1.9
	17 – 21	346	64.60
	22 – 26	170	31.60
	27 and above	10	1.9

Drinks	Frequency	Percentage
LACASERA		
Good	133	24.81
Fair	137	25.55
Poor	123	22.96
Excellent	60	11.20
V. Good	83	15.48
PANTA		
Good	98	18.28
Fair	105	19.58
Poor	105	19.58
Excellent	98	18.28
V. Good	130	24.28
APPLE JUICE		
Good	91	16.97
	91	16.97

Fair	147	27.45
Poor	123	22.94
Excellent	84	15.67
V. Good		
ORANGE JUICE		
Good	97	18.09
Fair	81	15.14
Poor	124	23.13
Excellent	97	18.09
V. Good	137	25.55
FIVE ALIVE		
Good	96	17.91
Fair	56	10.44
Poor	112	20.90
Excellent	112	20.90
V. Good	160	29.85

Drinks	Frequency	Percentage
ZOBO		
Good	91	16.97
Fair	131	24.44
Poor	92	17.16
Excellent	115	21.45
V. Good	107	19.98
LEMONADE		
Good	140	26.11
Fair	100	18.65
Poor	94	17.53
Excellent	94	17.53
V. Good	108	20.18
CWAY		
Good	101	18.84
Fair	101	18.84
Poor	132	24.64
Excellent	101	18.84
V. Good	101	18.84
FRESH		
Good	99	18.47
Fair	123	22.94
Poor	99	18.49
Excellent	131	24.44
V. Good	84	15.68

The highest number of respondents (25%) rated Lacasera soft drink brand as having a fairly good taste, while minority (11%) respondents were of the opinion that Lacasera drink had an excellent satisfying taste. Also the highest number of respondents (24%) rated Fanta soft drink stock as having a very good and pleasant taste, while a lower number (19%) respondents commented that Fanta soft drink had a poor and old taste sensation. This minority opinion may be as a result of their long acquaintances and uses of this brand of soft drink that perhaps must have lost its original taste appeal. Also the highest number (27%) respondents did not appreciate the taste of sour sweet taste of apple juice however, (22%) respondents rated the soft drink taste as excellent and satisfying appeal. The highest number (29%) respondents rated Five alive brand of soft drink as having a very good taste appeal while (20%) rated the soft drink taste as excellent however, a minority (17%) respondents rated the taste of this soft drink as a good and pleasant drink. The highest number (33%) rated Vimto brand of soft drink as having a good taste while (12%) respondents indicated that Vimto possess an excellent taste appeal. Also the highest number (27%) rated the taste of Malt brand of soft drink as having a very good and tolerable taste sensation, while the minority (15%) indicated that malt drink tasted good enough. The highest number (26%) respondents indicated that Lemonade soft drink taste was good while (17%) rated the taste of Lemonade as excellent and sensational appeal. The highest number (24%) respondents did not appreciate the taste sensation of Cway brand of soft drink however, (18%) respondents rated the taste of Cway as excellent and favorable to their taste appeal.

Simple correlation coefficients between the noticeable symptoms and factors associated with heavy consumption of soft drinks are presented in **Table 3**. The table arranged the information on factors responsible for the noticeable symptom associated with large consumption of soft drink under: frequent thirst, frequent urination, frequent hunger, easily tired, tingling sensation on hand and feet. There was a positive and highly significant ($P < 0.05$) correlation coefficient (0.542* *) between frequent thirst and frequent urination. This positive correlation indicated a

brand of soft drink with an excellent good taste appeal would motivate the students to drink large quantity of such drink and eventually can result in frequent urination that in turn would promote frequent thirst. There was a positive and highly significant ($P < 0.05$) correlation coefficient (0.431^{**}) that existed between frequent taste and feeling of hunger. This positive correlation would suggest that frequent thirst could promote the frequent feeling of hunger and appetite for more satisfying drinks. Also there was appositive and highly correlation coefficient (0.345^{**}) between frequent urination and feeling of hunger. This positive correlation indicated that perhaps frequent urination may be as a result of consuming large quantity of soft drinks to suppress the feeling of hunger and the craving appetite. Also there were positive and highly significant ($P < 0.05$) between correlation coefficients (0.313^{**}) and (0.392^{**}) frequent tiredness and urination and frequent tingling sensations. These positive correlation coefficients that existed between tiredness and frequent urination and tingling sensation could suggest that consumer of large quantity of soft drink may be tired of frequent urination and frequent tingling sensation on the legs. There were positive and significant ($P < 0.05$) between correlation coefficients (0.236^{**})

(0.256^{**}) (0.235^{**}) and (0.248^{**}) existing between tingling sensation on the feet and frequent urination, feeling of hunger and frequent feeling of tiredness. These positive correlations indicated that the tingling sensation on the feet could be caused by combination effects of frequent thirst, urination, feeling of hunger and tiredness. Therefore to avoid the onset of these noticeable symptoms of diabetes, teenagers and adolescent school age must endeavor to minimize and control the habit of large consumption of various carbonated soft drink intake and engage in healthful nutritional diet of fruits and vegetables in order to maintain a vibrant good health condition in all life cycles.

Table 3: Simple correlation coefficient between noticeable symptoms and factors associated with heavy soft drink consumption.

	FT	FU	FH	EGT	TS H	TS F
FT	1					
FU	.542 **	1				
FH	.431 **	.345 **	1			
EG T	.374 **	.313 **	.392 **	1		
TS H	.236 **	.256 **	.235 **	.248 **	1	
TS F	.311 **	.315 **	.388 **	.241 **	.71 7*	1

FT = Frequent thirst

FU = Frequent urination

FH = Feel hungry

CONCLUSIONS

The study indicated that teenagers and adolescent s school age are consuming large volume of assorted soft drinks made my companies who advertised and promoted vigorously these products for higher consumption in order to maximize profit. However, there should be an educational awareness for unsuspecting and vulnerable consumers of soft drink that excessive

intake of these energy drinks may increase the risk of non-communicable diseases such as: overweight, diabetes, obesity, osteoporosis, insomnia, tooth and dental decay that which can lower the body immunity to fight infections. Also some family inherent health problems may be avoided with increasing natural use of fruits and vegetables.

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