DEPARTMENT OF COMMUNITY MEDICINE

ASSESSMENT OF KNOWLEDGE AND ATTITUDE TOWARDS CAFFEINE INTAKE AMONG ANMC MEDICAL STUDENTS

Submitted by Group H2

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Session (2019-2020)

DECLARATION

We declare that this report has been composed by our group and it has not been submitted,in whole or in part,in any previous application for a degree.Except where states otherwise by reference or acknowledgment,the work presented is entirely our own.

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Dr.Amna Sahar.

DEDICATION

I dedicate this project to God Almighty my Creator,my strong pillar,my source of inspiration,wisdom,knowledge and understanding . He has been the source of my strength throughout this program and on His wings have I soared.

This research is dedicated to my father,who taught me that the best kind of knowledge to have is that which is learned for its own sake.It is also dedicated to my mother,who taught me that even the largest task can be accomplished if it is done one step at a time and friends,who have provided us with constant motivation and unwavering support throughout this entire journey and encouraged us at every turn.

ACKNOWLEDGEMENTS

For the sake of Allah(SWT),the Most Merciful and Beneficent.All gestures of recognition to Allah and His endowments for the culmination of this work.He offered us with the learning,capacity and chance to attempt this exploration work and to achieve our objectives attractively.Without His gifts,this accomplishment would not have been conceivable.

Our humblest appreciation to the Holy Prophet Muhammad(P.B.U.H) whose lifestyle is a persistent direction just as a wellspring of motivation and boldness for us.

We offer our most profound appreciation to Dr.Amna Sahar,for her important knowledge,direction,and mentorship through the procedure of our examination,just as furnishing us with the fundamental offices to complete our work.Her positive consolation and patient methodology helped us monstrously through this procedure.

An uncommon gratitude to our family,companions and associates for their inspiration,petitions and consolations.

ABSTRACT

Caffeine consumption has lately become a trend among students nowadays,in all of its form including tea,coffee,chocolate and energy drinks.Where consumers do not know much about its pros and cones.The research's sample is collected through stratified non convince sampling.The conclusion of this research holds to be that caffeine consumption among students is increasing with inappropriate attitude and knowledge and purpose behind usage ranges from pleasure of caffeinated product to attempts to combat fatigue and stress.

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ASSESSMENT OF KNOWLEDGE AND ATTITUDE TOWARDS CAFFEINE INTAKE AND ITS EFFECTS ON MENTAL SATISFACTION AMONG THE STUDENTS OF ANMC

INTRODUCTION

Caffeine, world's most widely consumed psychoactive substance by both adults and children, which is legal, easy to obtain and socially acceptable to consume. Caffeine is a central nervous system stimulant of methyl xanthene alkaloid class, naturally occurring in coffee beans, tea leaves, cola nuts, yerba-mate leaves, cocoa beans and guarana seeds.Apart from water, tea and coffee has become world's popular beverages in most of the individual's life as a daily routine. Consumption of energy drinks and soft drinks has become popular practice worldwide, especially among younger populations.

An extract from cola nuts and synthetic caffeine are used in many cola drinks and energy drinks. The psychoactive properties of caffeine have released extensive research that demonstrates that caffeine can have both positive and negative health effects on individuals.

Modest intake of caffeine that is 200 – 300mg per day are beneficial to health. A safe level of daily caffeine intake is regarded as one not exceeding 400 mg per day. Excessive daily intake above 400 mg may however cause agitation, sleep disturbances, anxiety, irritability, nervousness. A regular, long term and excessive intake may lead to an addiction and adverse health consequences.

Caffeine, like sugar, may activate the dopaminergic reward system and thence lead to addiction. The adverse health effects of caffeine are even more apparent in sensitive populations, namely children and adolescents.During childhood and adolescence, the brain undergoes intensive development, especially those centers responsible for performance, planning and emotional control, where frequent caffeine consumption by these groups may have adverse health impacts. Additionally, energy drinks can contain ingredients such as guarana, taurine, inositol, group B

vitamins, glucuronolactone and others which enhance the action of caffeine.

The extensive advertising of these drinks and their accessibility in grocery stores, convenience stores and supermarkets has made them both acceptable and readily available for all age groups in a population.

It was reported that energy drinks are available to buy in more than 140 countries, and half of the consumers of these drinks consisted of children, adolescents and young adults. Assessing the current caffeine intake from all sources therefore is crucial to estimate the contribution of new caffeinated foods and beverages to the total caffeine intake and to identify the potential of single categories of caffeine sources in our diet for a reduction of total caffeine consumption, if this is required from a public health point of view.

To determine whether overall caffeine intake indeed is increasing, or whether new caffeine sources are substituting the more traditional sources, standardized studies on consumption of all caffeine containing foods and beverages are required. Summarizing the available data, this review therefore provides an overview of the current status of caffeine intake on ANMC students from all sources.

LITERATURE REVIEW

Therapeutic studies revealed that coffee is among the most widespread and healthiest beverages in the world. It is known to be highly rich source of biologically active natural metabolites which possess therapeutic effects (caffeine) and functional properties (chlorogenic acid) , three glasses of coffee may diminish the chance of liver cancer by 50% ,whereas another ponder propose that drinking four glasses a day might split the chance of mouth and throat cancer . Based on data reviewed, it is concluded that for the healthy adult population, moderate daily caffeine intake at a dose level up to 400mg day (-1) (equivalent to 6mg kg (-1) body weight day (-1) in a 65kg person is not associated with adverse effect like toxicity, CVS effects, change in adult behavior, increased incidence of cancer and effect on male fertility.

Caffeine in any form was consumed by 92% of students in the past year. Mean daily consumption for all students, including non-consumer, was 159 mg/d with a mean intake of 173 mg/d among caffeine users. Coffee was the main source of caffeine intake in male (120 mg/dL) and female (111 mg/dl) consumers .Male and female students consumed 30 mg/dL of caffeine in energy drinks and 28% consumed energy drinks with alcohol on at least one occasion. Students provide multiple reasons for caffeine use including feeling awake 79%, enjoying the taste 68%, social aspects of consumption 39%, improving mood 18% and alleviating
stress 9%.

Quantification of U.S college students warrants additional investigation. National survey such as the Kantar world panel and NHANES has suggested use of energy drinks by college students could contribute to a number of adverse outcomes. A
study shows that consumption of caffeine tends to increase as the years in the education system pass by. Undergraduate students (N=691) were given the 1992 caffeine utilization survey of Landrum. A subset (n=168) of those completing the survey were too given the Morning-Evening survey of Horne and Ostberg.
In the USA, Mitchell et al. examined caffeine consumption, data were collected using a 7-days beverage diary and it compromises approximately 98% of daily caffeine.

In Europe, the EFSA scientific opinion on the safety of caffeine combined data from 39 European surveys, it includes 66,531 participants. Combined data were presented for toddlers (12<36 months, N=4,103) , other children (3<10years old , N=8,755) , adolescents (10<18years old , N=8,709) .

In Pakistan 2019, pilot study was conducted on 10 students before data collection.185 university students (133 females and 52 males) and result was 66.5% consume caffeinated products on daily basics. Investigation demonstrated that normal consumption of caffeine was generally 1,600mg.

OBJECTIVES

1-To assess the knowledge and information about the caffeine in medical students.

2-To assess about the knowledge of its harmful effects on body and different organs.

3-Comparison of the knowledge and information about caffeine in male and female medical students.

MATERIALS AND METHODOLOGY

STUDY DESIGN:

Cross-sectional

STUDY TYPE:

Descriptive study

SETTING:

Azra Naheed Medical College, Lahore

DURATION OF STUDY:

2 months (18-04-2020 to 18-06-2020)

SAMPLE SIZE:

200 students

SAMPLING TECHNIQUE:

Stratified random sampling (1/3rd of male students in every 20 female students. From: Medical field

INCLUSION CRITERIA:

All willing registered students of ANMC can Participate

EXCLUSION CRITERIA:

Non registered or non willing students

DATA COLLECTION TOOL:

Structured close ended questionnaire

DATA COLLECTION PROCEDURE:

Students were given questionnaires to fill, in relaxed and uninterrupted environment and with their consent. Study purpose and confidentiality was explained to them before distribution of the questionnaire.

DATA ANALYSIS PROCEDURE:

IBM SPSS Statistics 20

ETHICAL CONSIDERATION:

This procedure will be conducted on the basis of informed consent taken from the students.

Frequencies

Table No:1 Frequency of distribution of caffeine consumption by respondents

	Frequency	Percent	Valid percent	Cumulative percent
Male	57	72.5	72.5	28.5
Female	150	27.5	27.5	75
Total	207	100	100	

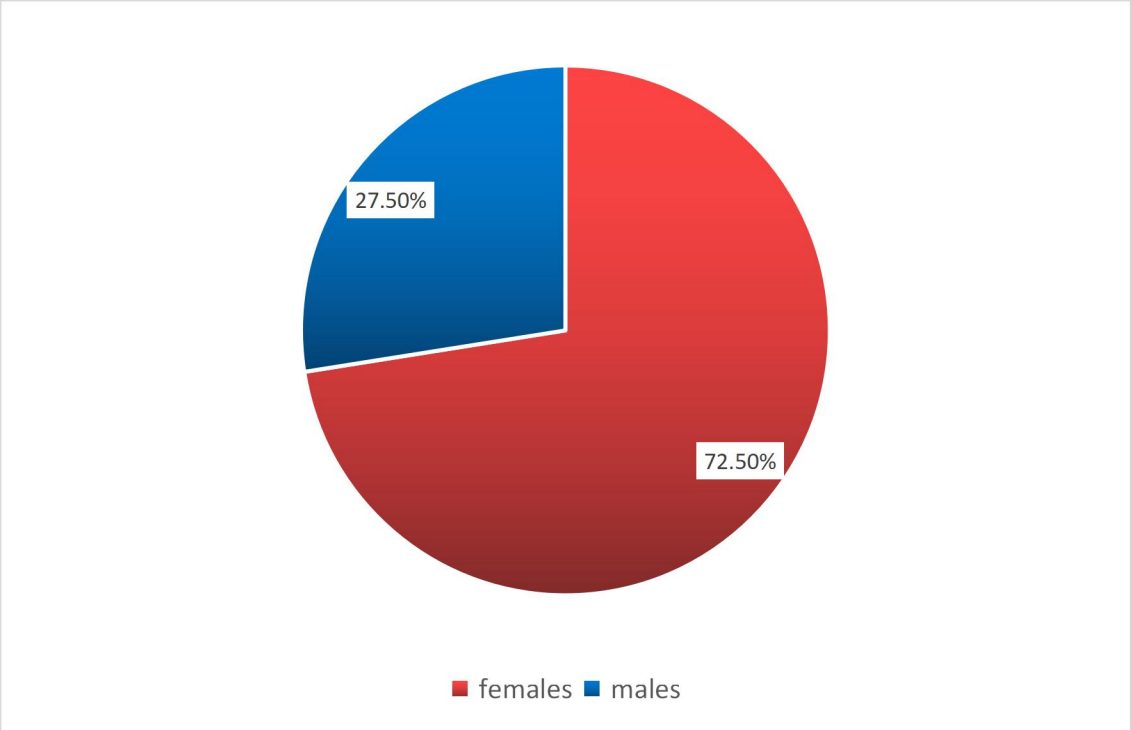


Table No 2 : Frequency of distribution of caffeine consumption by respondents.

	Frequency	Percent	Valid percent	Cumulative percent
15-20 yr	65	31.4		
21-25 yr	130	62.8		
26-30 yr	12	5.8		
Total	207	100		

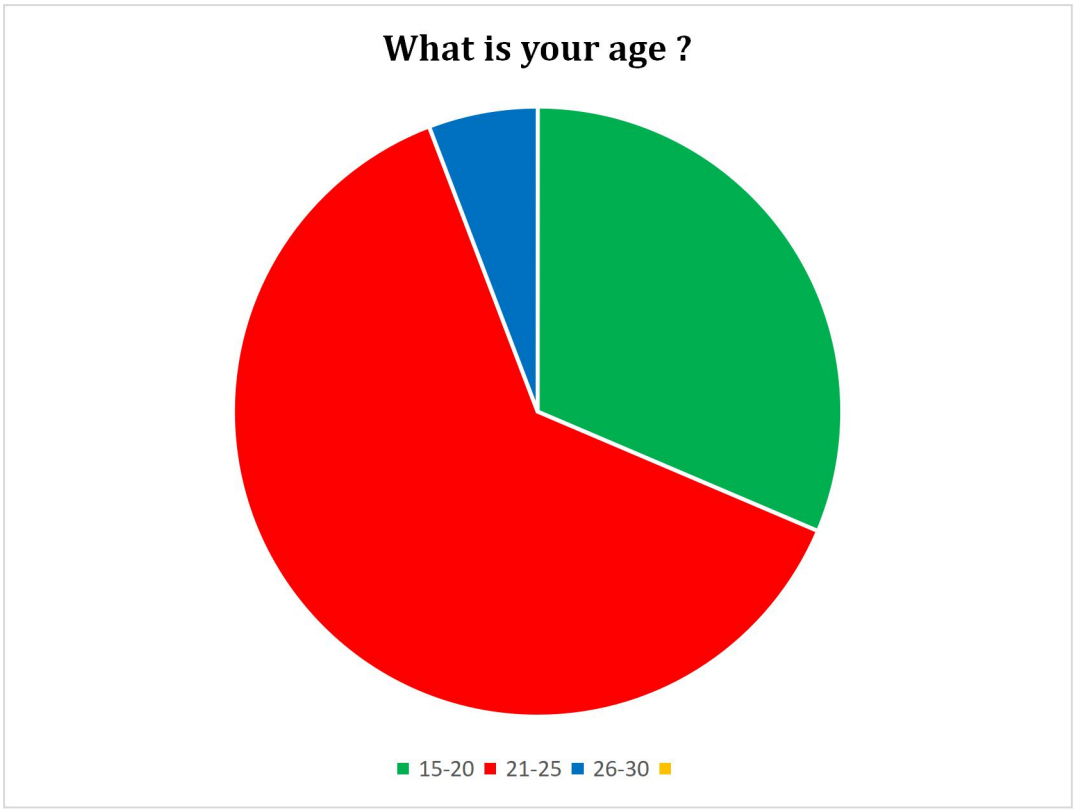


Table no 3 : Frequency of distribution of caffeine consumption by respondents.

	Frequency	Percent	Valid percent	Cumulative percent
MBBS	56	27.4		
DPT	85	41.7		
Any other speciality	60	30.9		
Total	207	100		

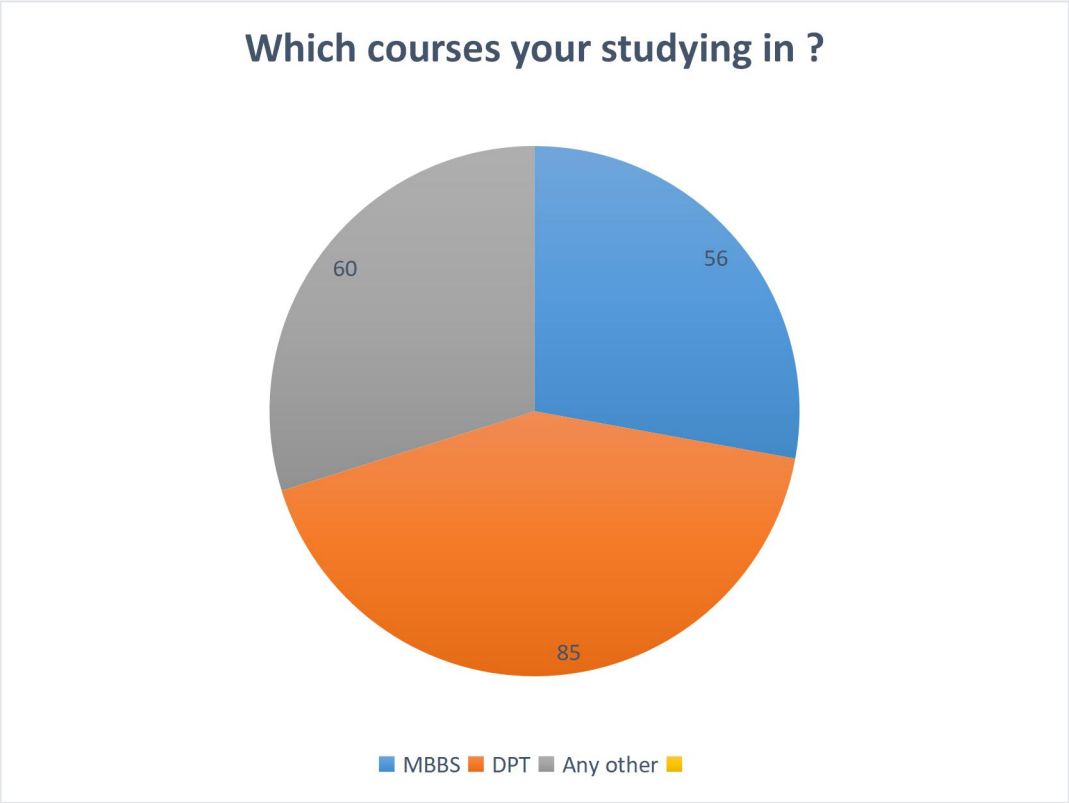


Table No 4 : Frequency of distribution of caffeine consumption by respondents.

	Frequency	Percent	Valid percent	Cumulative percent
Hostelite	**82**	**39.8**		
Day scholar	**124**	**60.2**		
Total	**207**	**100**		

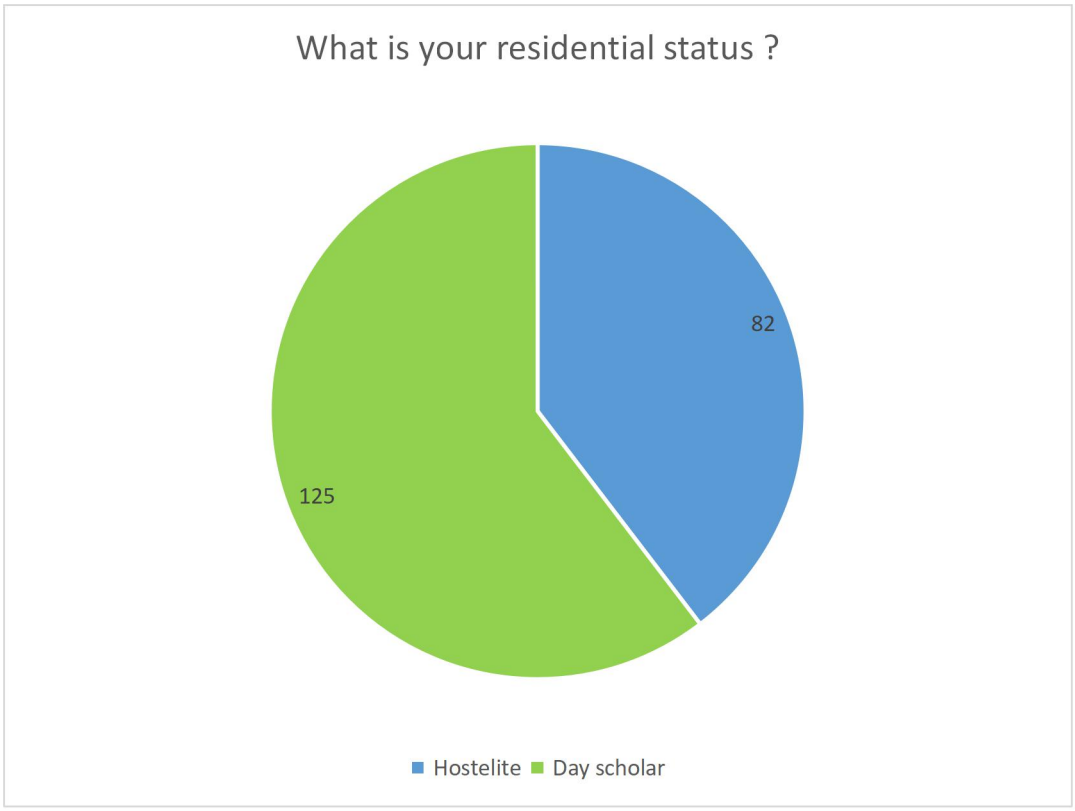


Table No5 : Frequency of distribution of caffeine consumption by respondents.

	Frequency	Percent	Valid Percent	Cumulative percent
Yes	98	47.3		
No	45	21.7		
Maybe	64	30.9		
Total	207	100		

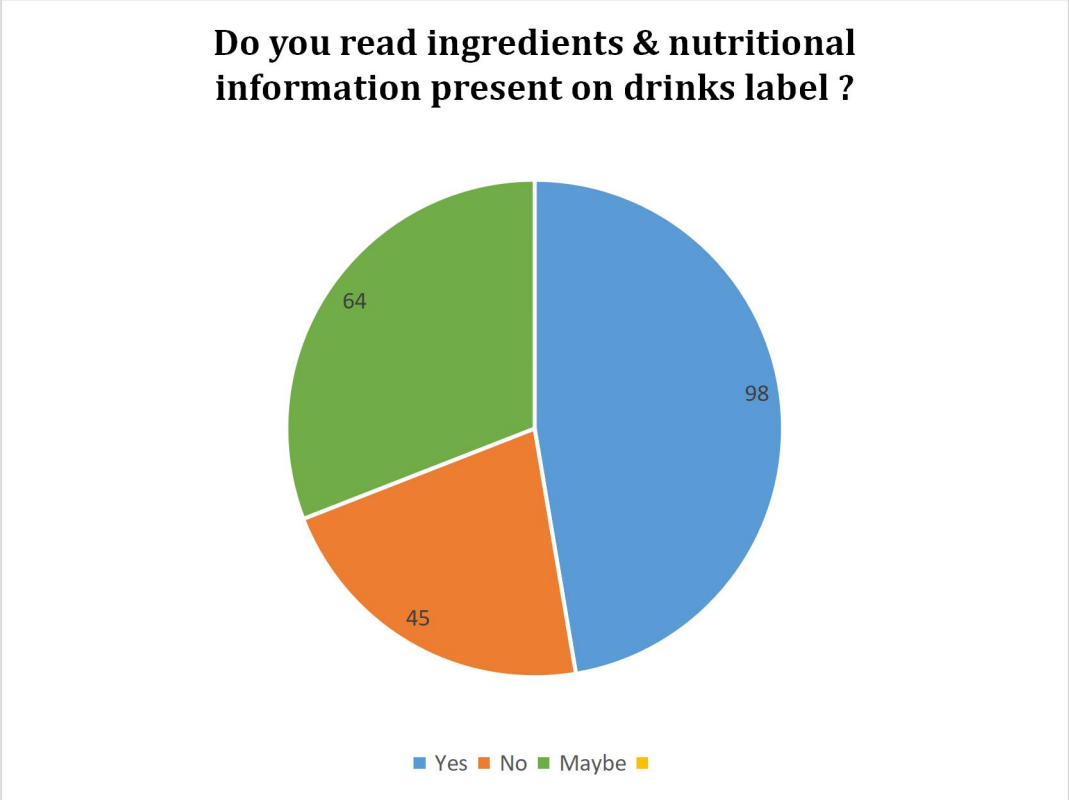


Table no6 :Frequency of distribution of knowledge of caffeine consumption among respondents.

	Frequency	Percent	Valid percent	Cumulative percent
Yes	147	71.7		
No	33	16.1		
I don't know	25	12.2		
Total	207	100		

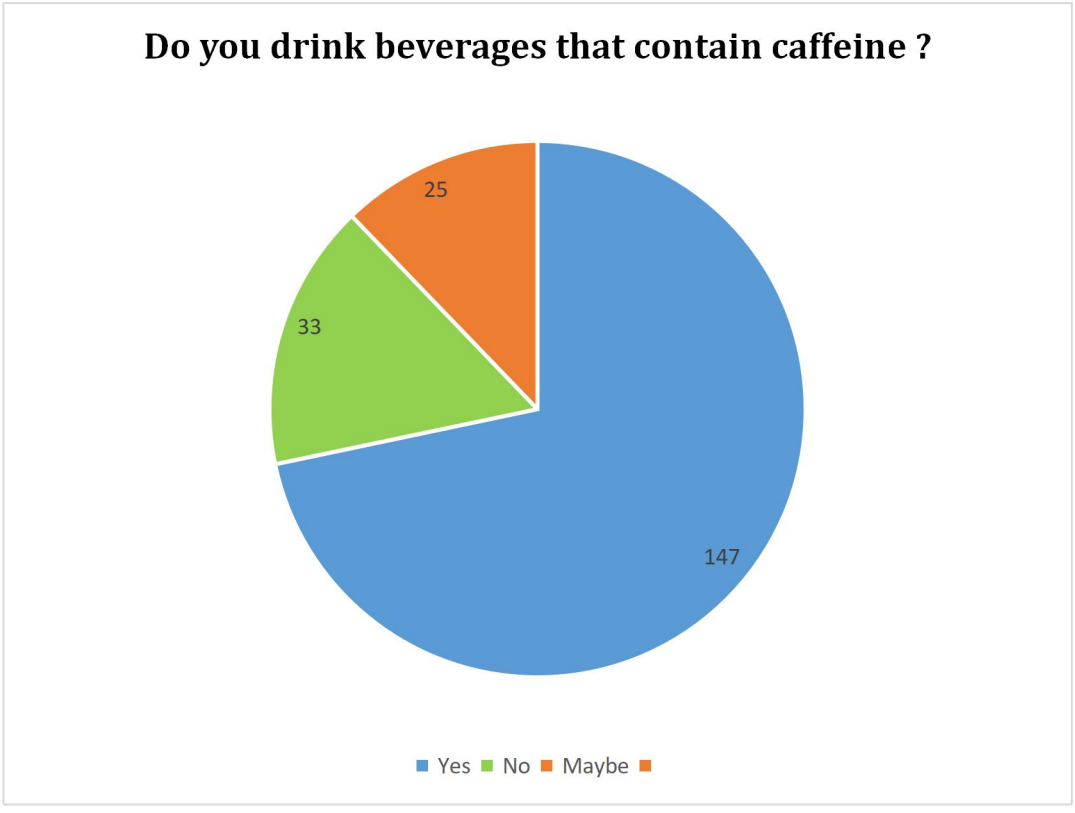


Table No7:Frequency of distribution of knowledge of caffeine consumption among respondents.

	Frequency	Percent	Valid percent	Cumulative percent
<1	46	22.3		
1-2	73	35.4		
2-4	28	13.6		
>4	20	9.7		
None	39	18.9		
Total	207	100		

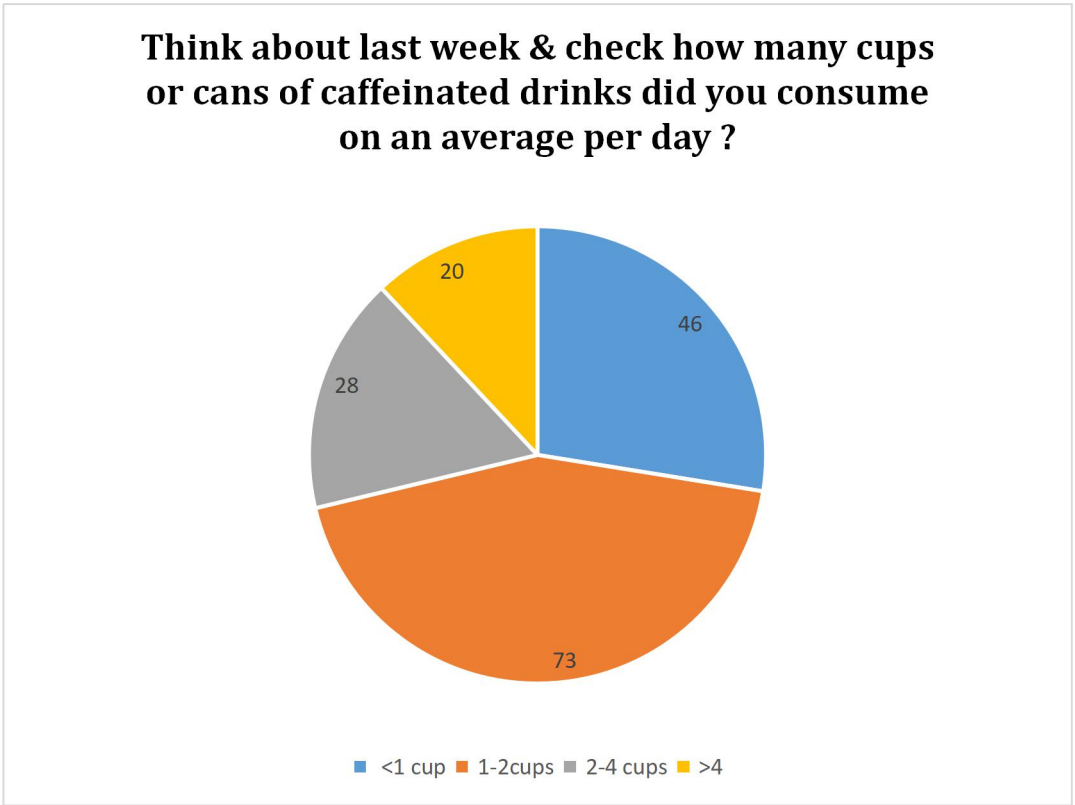


Table No8: Frequency of distribution of attitude towards caffeine consumption by respondents.

	Frequency	Percent	Valid percent	Cumulative percent
Morning	**70**	**34.8**		
Afternoon	**22**	**10.9**		
Evening	**57**	**28.4**		
Night	**52**	**25.9**		
Total	**207**	**100**		

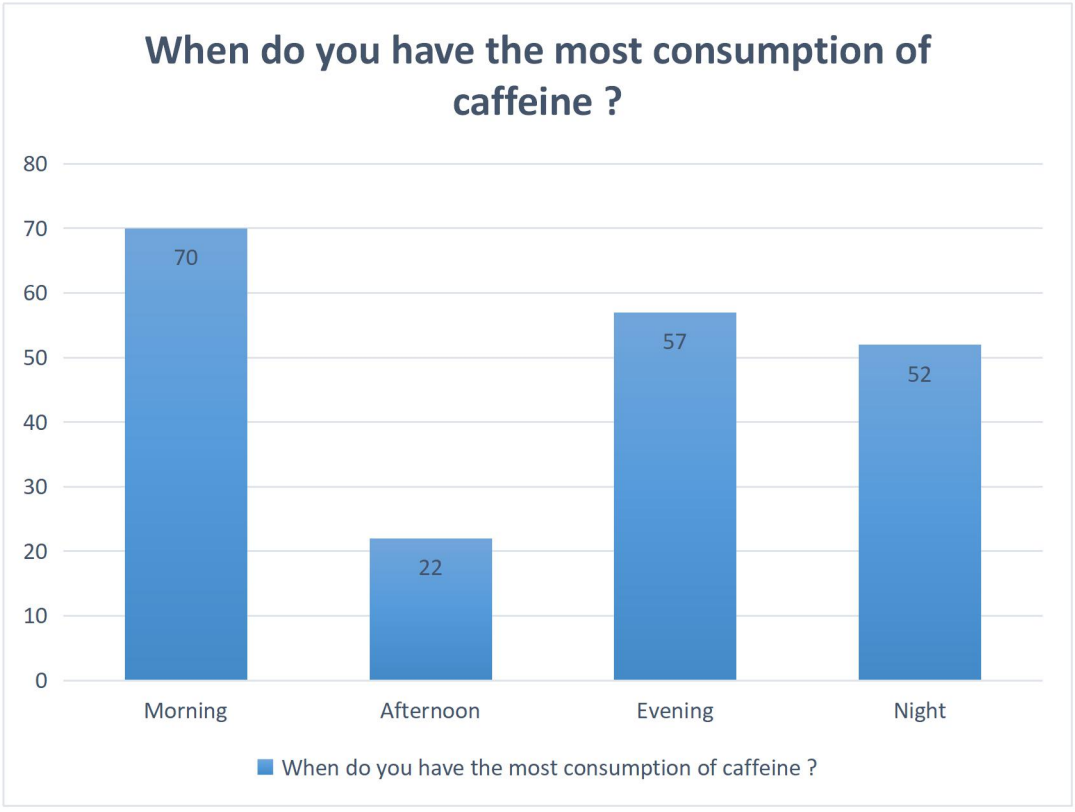


Table No9: Frequency of distribution of attitude towards caffeine consumption among respondents.

	Frequency	Percent	Valid percent	Cumulative percent
Tea	**129**	**62.6**		
Coffee	**35**	**17**		
Chocolate	**16**	**7.8**		
Energy drink	**26**	**12.6**		
Total	**207**	**100**		

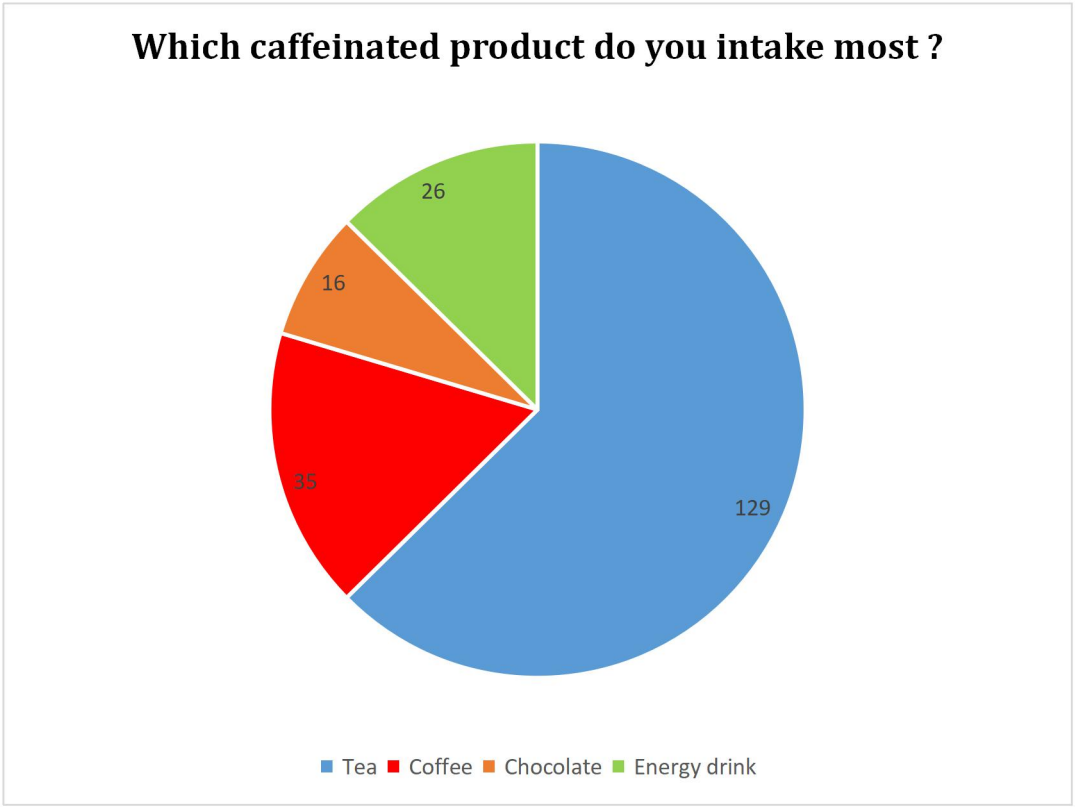


Table No10: Frequency of distribution of attitude towards caffeine consumption among respondents.

	Frequency	Percent(%)	Valid percent	Cumulative percent
Yes	122	58.9		
No	55	26.6		
Maybe	30	14.5		
Total	207	100		

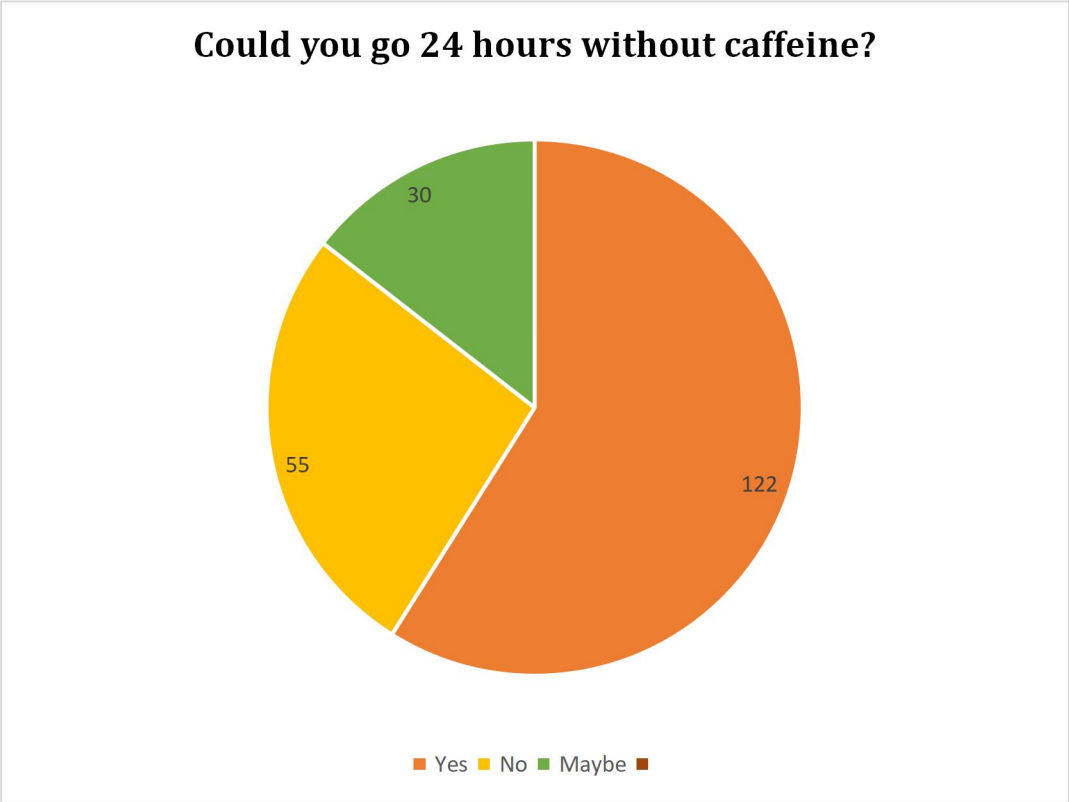


Table No11: Frequency of distribution of attitude towards caffeine consumption among respondents.

	Frequency	Percent	Valid percent	Cumulative percent
Lowest	74	34.1		
Mild	36	17.6		
Moderate	76	37.1		
High	13	6.3		
Severe	6	2.9		
Total	207	100		

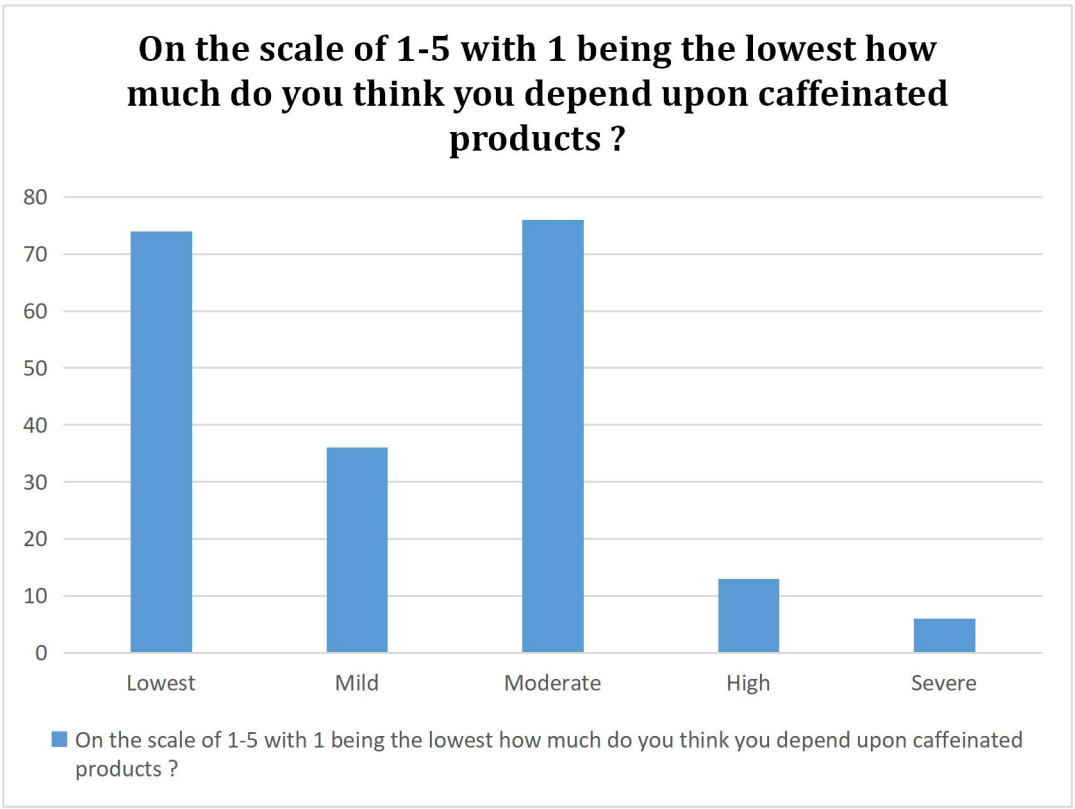


Table No12 :Frequency of distribution of attitude towards caffeine consumption among respondents.

	Frequency	Percent(%)	Valid percent	Cumulative percent
Increase concentration	29	14.2		
Enjoying drink	79	38.7		
Reduce sleep	32	15.7		
Driving	3	1.5		
Reduce fatigue	61	29.9		
Total	207	100		

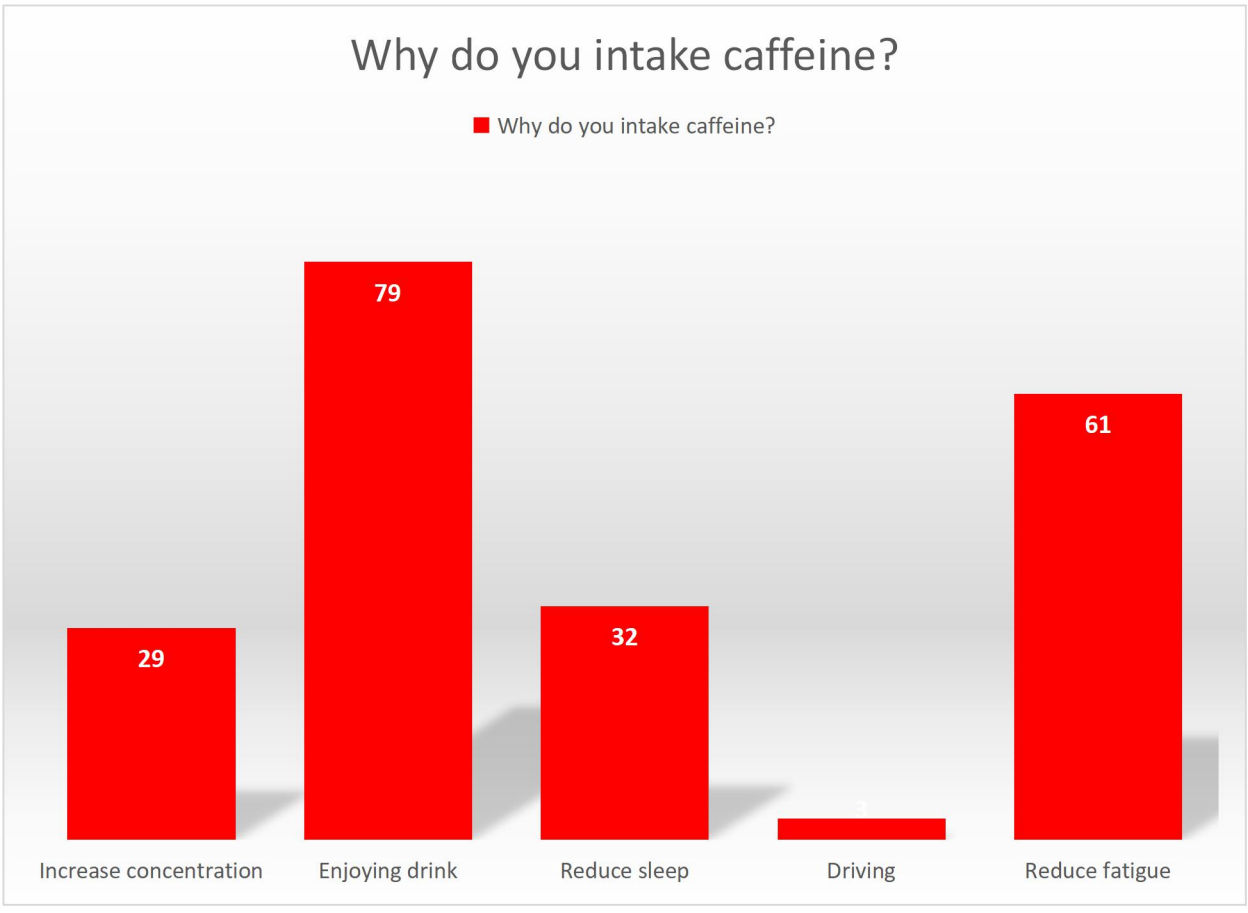


Table No13:Frequency of distribution of attitude towards caffeine consumption among respondents.

	Frequency	Percent(%)	Valid percent	Cumulative percent
Yes	**92**	**44.7**		
No	**114**	**55.3**		
Total	**207**	**100**		

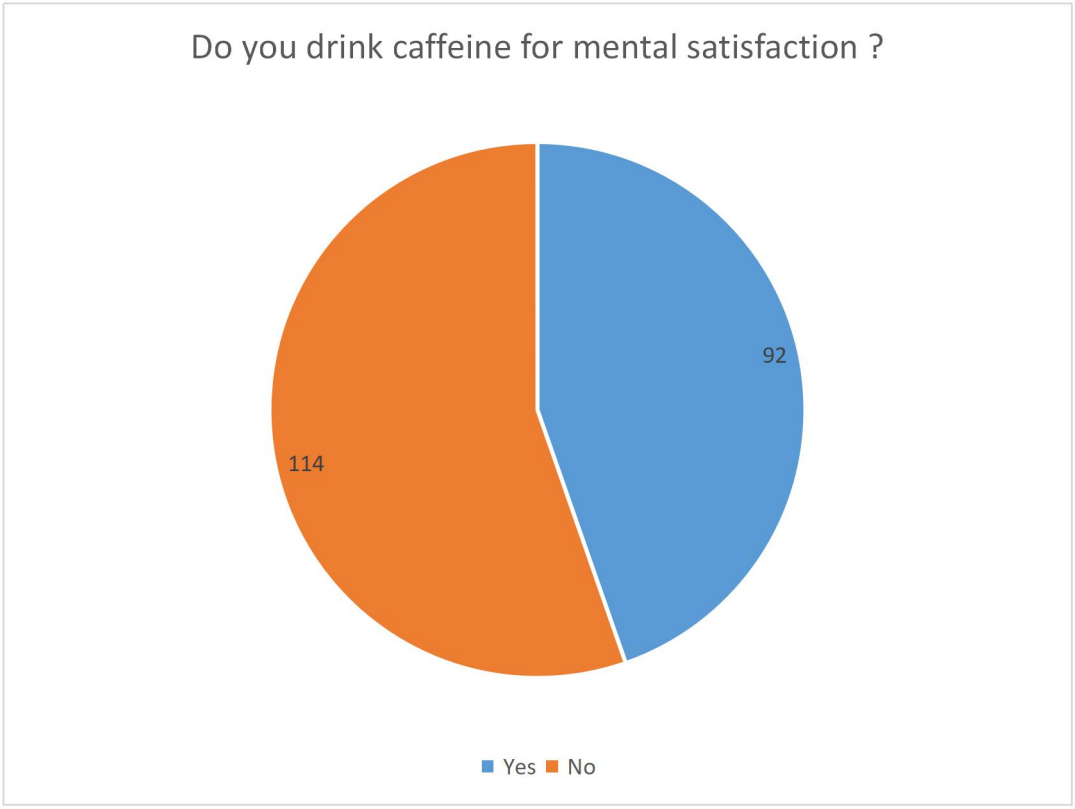


Table No14:Frequency of distribution of effect of caffeine consumptionon mental alertness by respondents.

	Frequency	Percent	Valid percent	Cumulative percent
Most of the time	62	30.2		
Always	29	14.1		
Sometimes	95	46.3		
Never	19	9.3		
Total	207	100		

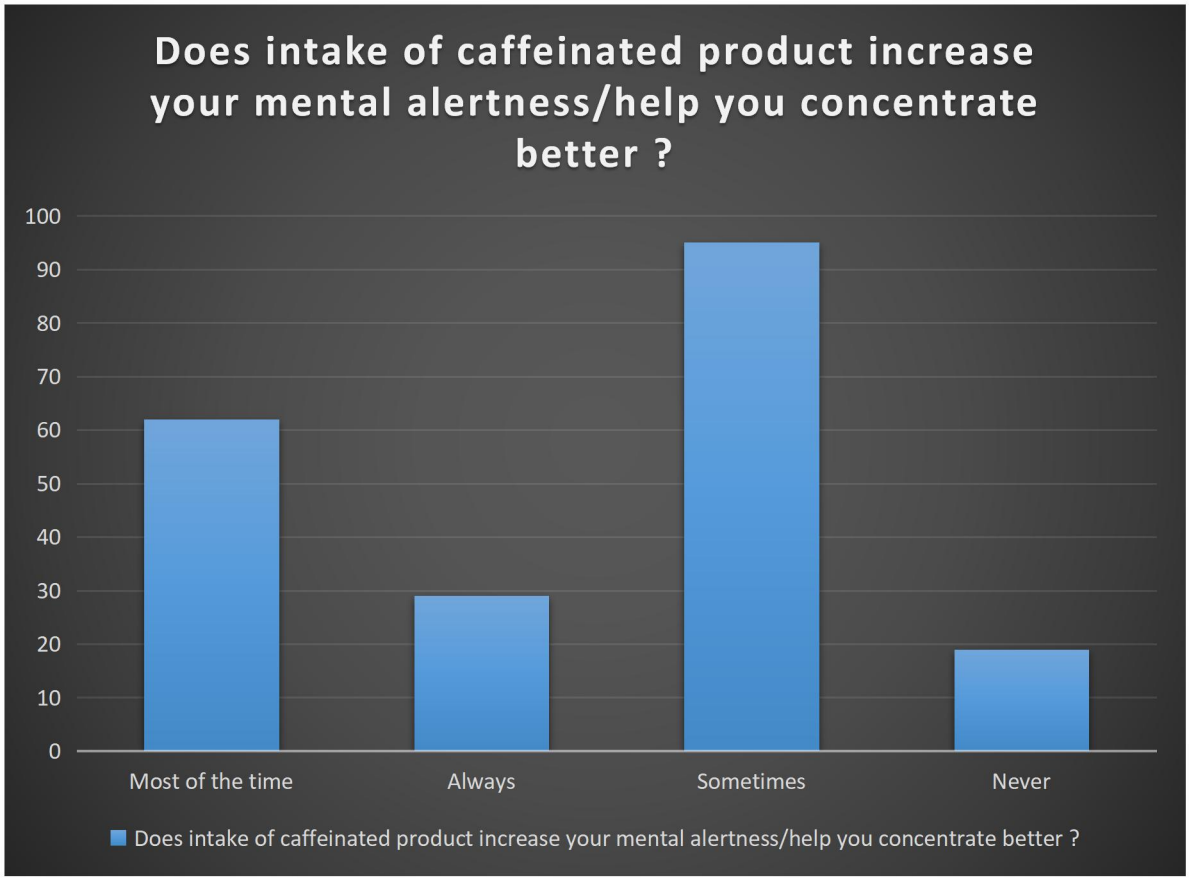
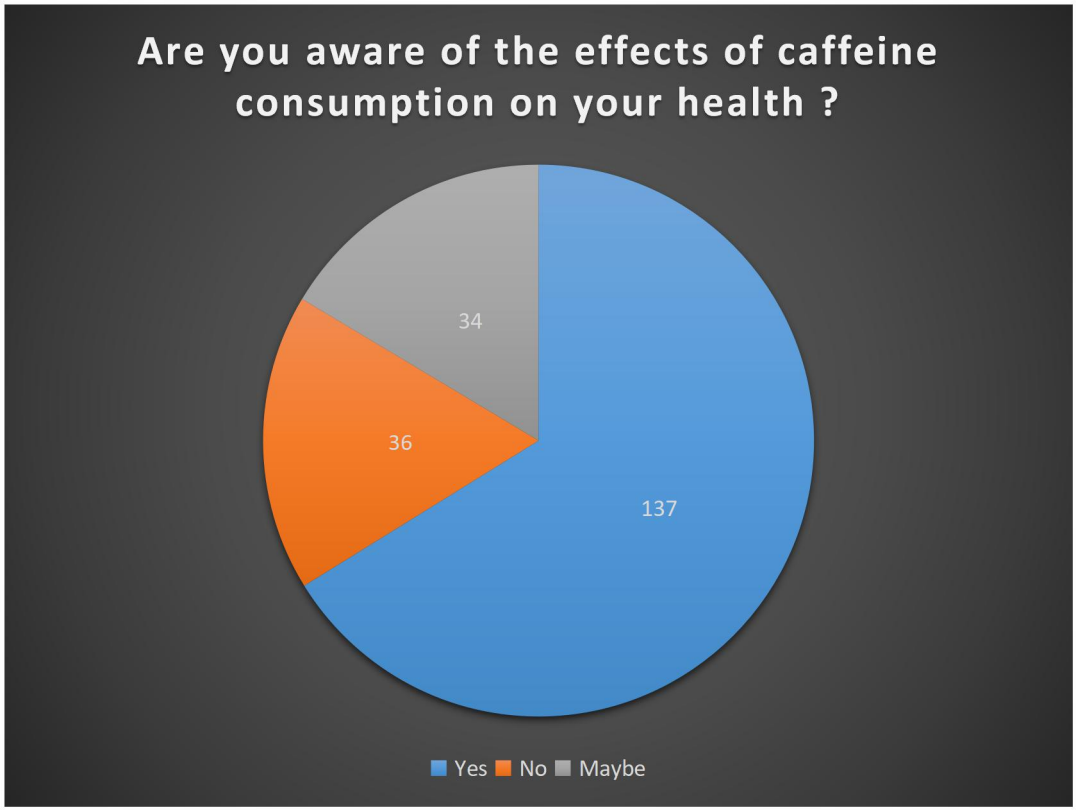


Table No 15 : Frequency of distribution of knowledge about caffeine consumption among respondents.

	Frequency	Percent(%)	Valid percent	Cumulative percent
Yes	137	66.2		
No	36	17.4		
Maybe	34	16.4		
Total	208	100		



RESULTS

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Table No1:Frequency distribution of gender and which caffeinated product do you intake most?

	Which caffeinated product do you intake most ?				
Your gender is	Chocolate	Coffee	Energy drink	Tea	Grand Total
Female.	11	20	16	101	148
Male	5	15	10	26	56
Grand Total	**16**	**35**	**26**	**127**	**204**

RESULTS

Cross tabs

Table No1:Frequency distribution of gender and which caffeinated product do you intake most?

	Which caffeinated product do you intake most ?				
Your gender is	Chocolate	Coffee	Energy drink	Tea	Grand Total
Female.	11	20	16	101	148
Male	5	15	10	26	59
Grand Total	**16**	**35**	**26**	**127**	**207**

TableNo2:Frequency of distribution of gender with consumption of caffeine by respondent.

Count of time	**time**				
Your gender is	**Afternoon**	**Evening**	**Morning**	**Night**	**Grand Total**
Female.	14	37	54	40	145
Male	7	18	16	13	54
Grand Total	**21**	**55**	**70**	**53**	**199**

Table No3:Frequency of distribution of gender and why caffeinated product is taken by respondent .

Count of Why do you intake caffeine ?	Your gender is		
Why do you intake caffeine ?	**Female.**	**Male**	**Grand Total**
Driving	2	1	3
Enjoying drink	55	23	78
Increase concentration	18	11	29
Reduce sleep	25	8	33
Reduced fatigue	48	13	61
Grand Total	**148**	**56**	**204**

Table No4 :Frequency distribution of program and time of consumption of caffeine product by respondent.

Which courses your studying in ?	**Afternoon**	**Evening**	**Morning**	**Night**	**Grand Total**
Any other speciality	11	13	22	16	62
DPT	5	25	31	21	82
MBBS	5	15	16	16	52
MIT	0	1	0	0	1
Grand Total	**21**	**55**	**70**	**53**	**199**

TableNo5:Frequency distribution of program with how long respondent can last without caffeine.

Which courses your studying in ?	Maybe	No	Yes	Grand Total
Any other speciality	10	18	35	63
DPT	12	21	52	85
MBBS	6	16	32	54
MIT	1	0	0	1
Grand Total	**29**	**55**	**121**	**205**

Table No6:Frequency distribution of program with mental satisfaction of caffeine by respondent.

Which courses your studying in ?	No	Yes	Grand Total
Any other speciality	29	33	62
DPT	41	44	85
MBBS	20	34	54
MIT	0	1	1
Grand Total	**91**	**113**	**204**

TableNo7:Frequency distribution of residency with dependence on caffeine by respondent.

	Which caffeinated product do you intake most ?				
What is your residential status?	Chocolate	Coffee	Energy drink	Tea	Grand Total
Day scholar	12	23	15	73	123
Hostelite	4	12	11	53	80
Grand Total	**16**	**35**	**26**	**127**	**204**

TableNo8:Frequency distribution of residency with dependence of caffeine by respondent.

	Think about last week and check how many cups or cans of caffeinated drinks did you consume on an average per day ?					
What is your residential status?	<1	>4	1-2	2-4	None	Grand Total
Day scholar	30	14	41	16	23	124
Hostelite	16	7	31	12	13	79
Grand Total	**46**	**21**	**72**	**28**	**37**	**204**

TableNo9:Frequency distribution of residency with how long they can go without caffeine by respondent.

	Could you go 24 hours without caffeine ?			
What is your residential status?				
Day scholar	16	27	81	124
Hostelite	13	28	39	80
Grand Total	**29**	**55**	**121**	**205**

TableNo10:Frequency distribution of residency with why do respondents intake caffeine.

			Why do you intake caffeine ?			
What is your residential status?						
Day scholar	3	46	21	16	35	121
Hostelite		31	8	16	25	80
Grand Total	**3**	**77**	**29**	**32**	**61**	**202**