

Assessment of Dietary Habits & Lifestyles amongst the University Students in Eastern India

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Abstract:

Background: College life gives wing to the prospects of younger mass with unlimited career prospects, sense of independence as well as lead towards a vivid lifestyle. These changes in their social activities lead towards an asymmetrical behavioral change in consumption of food items which has become a major public health concern today. Therefore, it's a high time to understand their dietary patterns and lifestyles in order to take corrective actions for provisions of healthy eating habits and lifestyle for university students.

Objective: To understand the dietary habits as well as the lifestyles of young adolescents of a renowned private deemed to be university in Bhubaneswar, Odisha, India.

Materials and Methods: The research was conducted in the capital city of Bhubaneswar of Odisha state in India with feedbacks of 428 undergraduate & post graduate students of different streams attending a renowned private deemed to be university. The data was captured using a self-administered questionnaire on the demographic profiling, social strata, lifestyle data, eating habits, health and nutritional status.

Results: Analysis results revealed about many unhealthy dietary practices & lifestyle patterns of the students. Skipping breakfasts, eating fast foods on regular basis, absence of fruits & vegetables in daily supplements, absence of physical exercise, inadequate sleeping practices, etc. which points towards undesired dietary habits in general.

Epilogue: Youth is the future of community. In this direction, the present study here can provide necessary insights into their current lifestyles and nutritional habits in order to develop healthy eating practices as well as help the policymakers to address issues concerning students' health in long-term.

Keywords: Student's health, Healthy Diet, Lifestyles,

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I. INTRODUCTION

Today in India, around 600 million adolescents stand at the crossroads between childhood and adult world where it is the duty & responsibility of each of the enlighten mind to nurture them positively in order to transform the society. The young generation is motivated, restless as well as with lots of potential in them to change the future course of this world

(Naidu, *et. al* 2017). As their adolescent flourishes, it is all of our responsibility to transform it as an age of opportunity as they hold the key to breaking the cycles of poverty, inequity and deprivation (UNICEF India, 2018).

The age group between 10 to 19 years has been designated as the years of adolescent which acts as a transition period from the childhood to adulthood. Rapid changes in their physical and mental growth

happen at this stage that affects their intrinsic and extrinsic behaviours (WHO, 1999). These are the growth years of young minds intending to build their careers across various verticals that make them vulnerable towards the pressure from various peer groups and thereby their eating habits gets affected arbitrarily (Mallick, *et. al* 2014). In this era of globalization, due to various factors like urbanization, unprecedented economic growth leading to enhanced income abilities and availability of world class products & services. Due to this consumerism, the consumption of traditional food items from dietary habits have reduced and consumption of processed food items have enhanced (PAHO, 2017). The curiosity within them makes them experimenting with various aspects of lives and thereby show varied psychological behaviour. The age and its effects on their lives lead towards a vivid eating pattern affecting their capacities and capabilities to a great extent (Naidu *et. al* 2016). In these dynamic years, the lifestyles, the psychological and physical factors affect the eating patterns and their appetite towards the food. Poor and asymmetric eating habits of this nature often lead towards obesity & various other health related issues in the later years.

As the youths are the future of a nation, it's a high time for the enlightened minds to study their behaviour as well as assess the current affairs in a serious note in order to work towards mitigating the irregularities in a systematic manner. In this regard, this study is carried out to examine the preference, prevalence and pattern of food consumption amongst the students of a leading private Deemed to be University situated in the state of Odisha in India.

II. Literature Review

As the students enter into the college life, they often come across a new environment for meal preparation, planning, and eating. Though many of them are aware about the nutritional characteristics and values of the food they consume, but they generally fail to adopt healthy diets for their daily consumptions. Rather, while choosing between

options, they are found to be more inclined towards convenience, taste, time, and price of food items than their nutritional values. (Abraham, *et. al* 2014). Due to varied reasons like age, physical & psychological changes, freedom, increased social activities, study pressure, boredom, homesickness, etc. often their lifestyles gets affected that leads to various health related ailments (Baseer, *et. al* 2015). Health is the real wealth for a human being. In order to maintain the all crucial health aspect in an optimal state, the nutritional requirements are to be met constantly (Brown, *et. al* 2017). But many of the recent studies have revealed that the vivid lifestyles as well as poor eating habits amongst the college students are on a rise irrespective of a developed, under developed or developing nation (Barnes, *et. al* 2012). This change in their social and physical environment also attributed towards increase uses of narcotics substances like gutkha, cigarettes, alcohol etc., lack of sleep & physical activities and increase in stress levels etc. (Das & Evans, 2014).

Over the years, many researchers have tried to assess the evidences of eating habits, nutritional requirements, health related awareness & behaviours, etc. where they have revealed about many factors like change in study environment, stress, absence of a proper guidance system, misutilisation of the freedom in a college life, lack of time, inclination towards taste than nutritional values, convenience, easy access to junk food etc. that greatly affects the lifestyles and eating habits of the young minds (Lockwood & Wohl, 2012, Brown *et. al* 2014, Boucher *et. al* 2015). Parental food behaviours, social pressure of the peer groups, absence of food knowledge & education, improper meal planning also plays a part in the poor dietary habits of the students (Sogari *et. al* 2018).

But in order to make the process more holistic, we certainly need fresh and supplementary evidences and reports from various corners as well as different strata of the students which points towards a more serious approach to be adopted. Hence, it becomes important to provide the young minds with health education and formulate strategies that can address

the lifestyles and nutritional elements in their food choices. The aim behind all this is to address their physiological, social and psychological health issues of the young minds.

III. Objectives of the Study

The purpose of this research was to assess the dietary habits amongst the students and to understand their outlook towards social as well as physical activities.

IV. Materials & Methods

This cross sectional study was carried out at a leading private deemed to be university at Bhubaneswar in the eastern Indian state of Odisha. A total number of 220 students with regular attendance in class in the

age group of 18 to 24 years were randomly selected. The students were briefed about the objectives of the study and interviews were collected during their breaks in-between the classes as well as in the canteens across the campuses. The target group included the students from various streams of education like Medical, Dental, Nursing, Engineering, Agriculture, Pharmacy, Law, Management, and Hotel Management. A structured questionnaire was developed to capture various data regarding their demographic profiles as well as food & beverage consumption patterns, preferences, reasons, sources, expenditure, timing, health & fitness consciousness etc. The collected data were analyzed and the results are discussed in the following section.

V. Analysis & Interpretations:

Profiling:

Table 1: Demographic Profiling of the Respondents

Parameters	Demographic Profiles	No. of Respondents	Percentage
Gender	Male	263	61.45
	Female	165	38.55
Area	Urban	298	69.63
	Rural	130	30.37
Age	15 to 17	96	22.43
	17 to 19	197	46.03
	20 to 21	68	15.89
	22 to 24	51	11.92
	More than 24 Years	16	3.74
Religion	Hindu	252	58.88
	Muslim	97	22.66
	Christian	35	8.18
	Sikhs	28	6.54
	Others	16	3.74
Stream of Study	Medical	61	14.25
	Dental	51	11.92
	Nursing	38	8.88
	Pharmacy	44	10.28
	Management	53	12.38
	Law	40	9.35

	Agriculture	43	10.05
	Engineering	62	14.49
	Hospitality & Tourism Management	36	8.41
Family Structure	Joint Family	353	82.48
	Nuclear	75	17.52
Monthly Household Income	Rs. 30001 – 40000	11	2.57
	Rs. 40001 – 50000	28	6.54
	Rs. 50001 – 60000	57	13.32
	Rs. 60001 – 70000	39	9.11
	More than Rs. 70000	293	68.46
Current Place of Leaving	At Home	121	28.27
	At Boarding (Mess)	98	22.90
	At Hostel	209	48.83
Diet Preference	Vegetarian	76	17.76
	Mixed	352	82.24

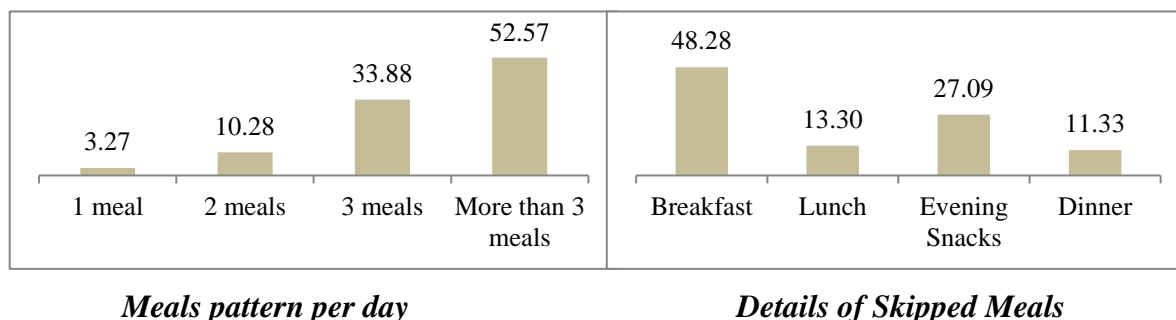
Table 1 reveals about the demographic profiles of the respondents across various variables.

- ✓ Out of the total respondents, 61.45 percent were males where as 38.55 percent were females.
- ✓ Around 69.63 percent of student belonged to urban areas where as 30.37 percent of were from the rural areas.
- ✓ Age wise, majority of the students were in between 17 to 19 years (around 46.03 percent of the total respondents) whereas around 22.43 percent of the respondents were in the age group of above 15 to 17 years followed by 15.89 percent of respondents in the age bracket of 20 to 21 years, 11.92 percent in 22 to 24 years and 3.74 in more than 24 years.
- ✓ Religion wise, majority of the respondents belonged to Hinduism with 58.88 percent followed by 22.66 percent practicing Islam, 8.18 percent Christianity, 6.54 percent Sikhism and 3.74 to other beliefs.
- ✓ When we researched about their streams of study, students of engineering came up as maximum with 14.49 percent followed by medical (14.25), Management (12.38), Dental (11.92), Pharmacy (10.28), Agriculture (10.05), Law (9.35), Nursing (8.88) and Hospitality & Tourism Management (8.41) percentages.

- ✓ 82.48 percent of students belonged to joint families where as 17.52 percent belonged to nuclear families.
- ✓ If we focus on their monthly household incomes, almost 68.46 percent of respondents were in the income group of more than Rs.70,000/- per month whereas around 13.32 percent were in the range of Rs.50,001/- to Rs.60,000/-. Around 9.11 percent were having monthly household income in the range of Rs.60,001/- to Rs.70,000/- followed by 6.54 percent in Rs.40001 – 50000/- group and 2.57 percent in the Rs.30001 – 40000/- group.
- ✓ 48.83 percent of the respondents were residing at the hostels, followed by 28.27 percent students were residing at their homes where as 22.90 percent were staying at private boarding houses (mess).
- ✓ When their diet preference was enquired, around 82.24 percent revealed as omnivorous whereas only 17.76 percent were pure vegetarians.

VI. Meal Patterns

Figure 1: Details of Consumption of Meals



Source: Primary data

More than half of the students (52.57 percent) were found to consume all the meals on a regular basis. When the skipped meals details were assessed, it was the morning breakfast that was skipped on a regular manner with 48.28 percent (Amongst those who skipped meals).

Table 2: Causes behind skipping meals

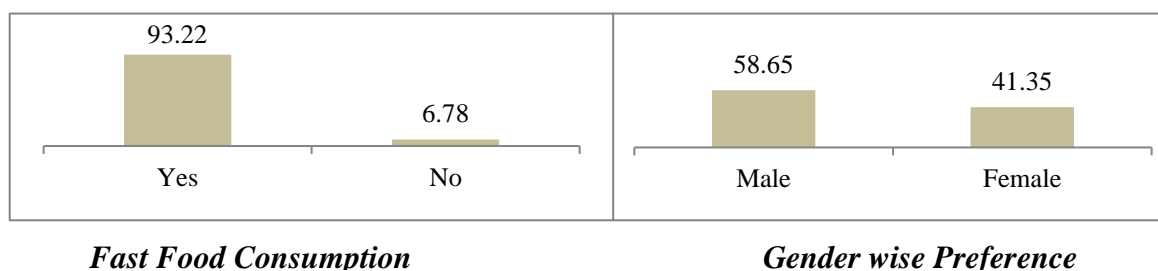
Reasons	Nos.	Percentage
Stress (Due to study or any other reasons)	168	82.76
I don't have an appetite (morning/afternoon/evening/night)	145	71.43
Away from family	135	66.50
Lack of time for meals	112	55.17
Habitual	92	45.32

Source: Primary data

When they were asked about the various reasons for skipping meals, stress levels due to classes, study etc. came up as the major reason (82.76 percent), followed by others like absence of appetite (71.43 percent), lack of family command & control (66.50 percent), lack of time (55.17 percent) and habit (45.32 percent).

VII. Preference for Fast Foods

Figure 2: Consumption of Fast foods

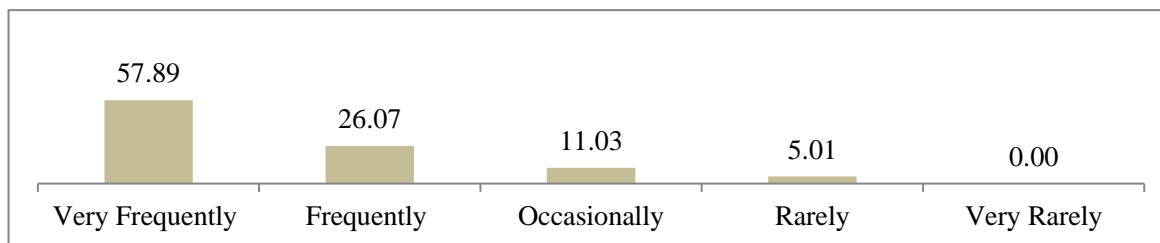


Source: Primary data

When asked about their preferences towards fast foods, more than 90 percent (93.22 to be exact) of the respondents preferred fast foods. Between genders, more male students (58.65 percent) preferred them comparative to the female students (41.35 percent).

VIII. Frequency of Fast Foods consumption:

Figure 3: Frequency of Consumptions



Source: Primary data

When asked about the frequency of fast food on a daily basis followed by weekly consumption consumptions, more than half of the respondents (26.07 percent). (57.89 percent) found to be consuming them almost

IX. Reasons for consumption of fast foods:

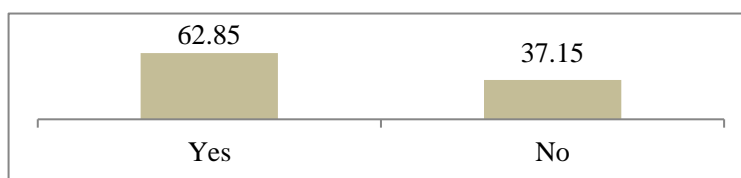
Table 3: Reasons of Consumption

Sl.	Reasons	Nos.	Percentage
1	They are easily accessible (Available everywhere)	322	80.70
2	They are quick to prepare (Time Savings)	302	75.69
3	They are easier to prepare	282	70.68
4	They are tastier	255	63.91
5	They are cheaper	241	60.40
6	Influenced by friends / family members	226	56.64
7	It's a mean of socializing with friends	155	38.85
8	Lack of other suitable alternatives	52	13.03
9	They're fun and entertaining:	69	17.29

The reasons for the preference towards fast foods easier preparations (70.68 percent) etc. followed by were found to be their wider availability (80.70 others. percent), quick preparation times (75.69 percent),

X. Preference towards Online Food Ordering System:

Figure 4: Online Food Ordering Habits



Source: Primary data

When we asked about their habit of ordering foods online, around 62.85 percent gave their answers on a positive note.

XI. Platforms Used For Ordering Online Food:

Table 4: Online Platforms

Sl.	Online Platforms	Nos.	Percentages
1	Zomato	199	73.98
2	Swiggy	143	53.16
3	Uber eats	111	41.26
4	Foodpanda	98	36.43
5	Foodzo	85	31.60
6	Hungryfree	65	24.16
7	Okm	53	19.70
8	BringMyFood	44	16.36
9	shoutmyshop	39	14.50
10	AmaHandiShala	24	8.92
11	Other Online Platforms	36	13.38

Source: Primary data

Zomato was found to be the most used online Swiggy (53.16 percent), Uber eats (41.26) etc. as platform (73.98 percent) followed by others like mentioned in the table.

XII. Consumption Details:

Table 5: Consumption Patterns

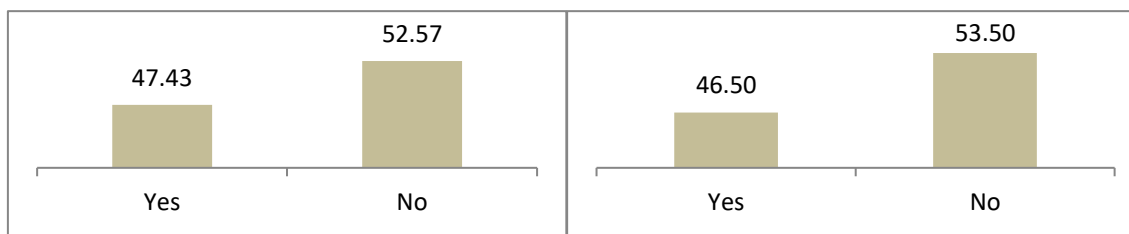
	Very Frequently	Frequently	Occasionally	Rarely	Very Rarely	Never
Soups (N)	48	188	132	46	12	2
(Percentage) →	11.21	43.93	30.84	10.75	2.80	0.47
Fruits / Fruits Juice	62	99	135	59	46	27
(Percentage) →	14.49	23.13	31.54	13.79	10.75	6.31
Milks / Milkshakes	42	108	75	99	48	56
(Percentage) →	9.81	25.23	17.52	23.13	11.21	13.08
Tea / Coffee	188	69	45	27	44	55
(Percentage) →	43.93	16.12	10.51	6.31	10.28	12.85
Vegetables	113	156	79	50	20	10
(Percentage) →	26.40	36.45	18.46	11.68	4.67	2.34
Cereals (Rice/Wheat/millet/maize etc.)	155	108	78	43	28	16
(Percentage) →	36.21	25.23	18.22	10.05	6.54	3.74
Pulses (Beans/lentils/lupins/peas/peanuts etc.)	155	128	85	45	13	2
(Percentage) →	36.21	29.91	19.86	10.51	3.04	0.47
Red Meat (Mutton)	26	198	105	23	0	0
(Percentage) →	7.39	56.25	29.83	6.53	0.00	0.00
White Meat (Chickens)	44	213	95	0	0	0
(Percentage) →	12.50	60.51	26.99	0.00	0.00	0.00
Fish / Sea foods	58	225	69	0	0	0
(Percentage) →	16.48	63.92	19.60	0.00	0.00	0.00
Eggs	72	235	45	0	0	0
(Percentage) →	20.45	66.76	12.78	0.00	0.00	0.00
Pizza / Pasta / Noodles	29	247	87	34	6	25
(Percentage) →	6.78	57.71	20.33	7.94	1.40	5.84

Sandwiches	37	243	79	59	7	3
(Percentage) →	8.64	56.78	18.46	13.79	1.64	0.70
Cakes/Pastries/Biscuits/ Cookies/ Chips	25	197	143	53	10	0
(Percentage) →	5.84	46.03	33.41	12.38	2.34	0.00

Source: Primary data

XIII. Habits of Smoking / Drinking:

Figure 5: Narcotics Consumption Pattern



Do you Smoke / Chew Tobacco?

Do you take Alcohol?

Source: Primary data

When we tried to assess their habits towards accepted to be in a habit of chewing gutkhas or narcotics substances, almost half of the respondents smoking bidi / cigarettes etc. and taking alcoholic (47.43 percent & 46.50 percent) respectively substances.

XIV. Frequency of Consumption:

Table 6: Consumption Patterns

Sl.	Frequency of Consumption	Bidi / Cigarettes / Gutkha etc. (Percentages)	Alcoholic drinks like Beer, Wine, Whiskey, Rum, Gin, Vodka, etc. (Percentages)
1	Very Frequently	49.43	29.26
2	Frequently	31.03	44.98
3	Occasionally	10.34	20.96
4	Rarely	6.13	4.80
5	Very Rarely	3.07	0.00

Source: Primary data

The frequencies of consumption were on a higher side for both smoking and taking narcotics substances.

XV. Reasons for Consumption of Narcotics Substances:

Table 7: Reasons

Sl.	Reasons	Smoking of Bidi / Cigarettes / Chewing Gutkha etc. (Percentages)	Consumption of alcoholic drinks like Beer, Wine, Whiskey, Rum, Gin, Vodka, etc. (Percentages)
1	Curiosity	50.57	44.54
2	For Show of Personality	33.72	37.99
3	Loneliness & Boredom	17.24	25.33
4	Inspired by friends & family members	32.57	29.26

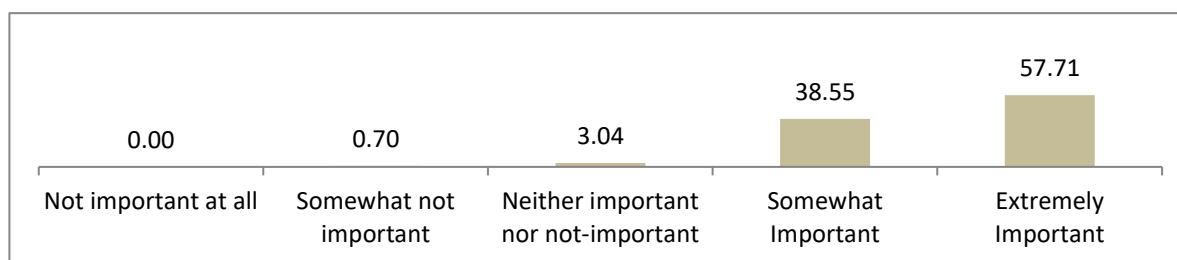
5	Stress (psychological pressure relief)	54.02	67.69
6	To Kill the appetite	17.24	1.31
7	Socialization	63.98	82.10

Source: Primary data

When the reasons for consuming the narcotics curiosity, dealing with stress etc. came up as the substances were assessed, need of socialization, major rationales.

XVI. Views towards Physical Activities

Figure 6: Importance of Physical Activities



Source: Primary data

Around 60 percent of the respondents (57.71 percent to be precise) gave a strong affiliation towards the importance of physical activities.

Table 8: Exercise Frequency

Do you Exercise Daily	Views	Nos.	Percentage
	Yes	291	67.99
	No	137	32.01
If Yes, How many days a week	Days	Nos.	Percentage
	1 Day	0	0.00
	2 Days	0	0.00
	3 Days	18	6.19
	4 Days	28	9.62
	5 Days	32	11.00
	6 Days	48	16.49
	7 Days	165	56.70
How Many minutes per day	Duration	Nos.	Percentage
	0 to 15 Minutes	6	2.06
	16 to 30 minutes	22	7.56
	31 to 45 Minutes	147	50.52
	45 to 1 Hour	104	35.74
	Over 1 Hour	12	4.12

Source: Primary data

Around 67.99 percent of the respondents said they exercised, around 56.70 percent accepted they do indulge in various physical activities / exercises them on all 7 days a week and around 50.52 percent whereas 32.01 percent never did any do it between 31 to 45 minutes a day. exercises/physical activities. Amongst those, who do

XVII. Reasons for Not Exercising:

Table 9: Reasons for not indulged in Exercises / Physical Activities

Reasons	Nos.	Percentages
Lack of Time	24	17.52
Not Interested	76	55.47
Lack of Self discipline	46	33.58
Self-consciousness	27	19.71
Environmental Conditions (Safety, Temperature)	32	23.36
Physical/ medical conditions	28	20.44
Lack of facilities and space	33	24.09
Lack of knowledge on exercise	54	39.42

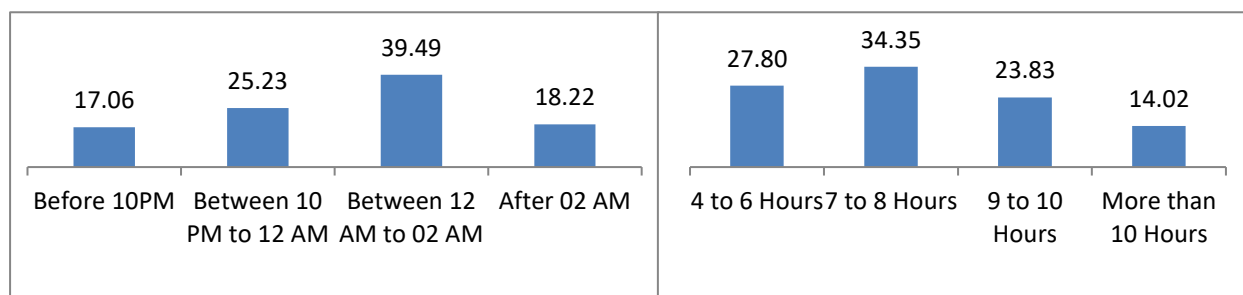
Source: Primary data

When the causes for not involving in physical activities / exercises were analyzed, variables like lack of interest, knowledge as well as lack of self discipline came up as the major hindrances.

XVIII. Feedback regarding Sleeping Habits:

Time of going to bed:

Figure 7: Time of Sleep



Time of Sleeping

Duration of Sleeping

Source: Primary data

When the sleeping habits of the students were asked, maximum of them admitted to take rest after 12AM at night where as majority of them were having a rest period within 8 hours a day.

Discussions:

- This study revealed regarding some key issues like lower intake of essential commodities like fruits, vegetables, cereals, pulses etc. by the young mass.
- Similarly insufficient rest times, skipping meals, lack of physical activities, engagement in unhealthy dietary practices like fast foods, lifestyle habits, and consuming narcotics substances came up as the major areas that need immediate attentions.
- Almost half of the respondents were found to be in the habit of skipping the morning breakfast which is a matter of concern for their physical and mental developments.
- Addictions to social media, online applications and friends' circle often leads to their detachment from the concept of healthy-eating which needs to be addressed.
- Another dimension of insufficient rest time also affects the humans' learning & memory abilities which is also a matter of discussion.
- Though, they were aware of the importance of maintaining healthy lifestyles and role of physical activities, somehow they were failing to maintain them.

Way forward: Attending a university in the curious age of growth, especially away from homes certainly affect the physical and mental health of a student that needs a comprehensive understanding of the variables affecting their lifestyles and food habits. Administrative measures needs to be taken to understand and cater their nutritional requirements as well as ensuring overall development, so that they can contribute for growth in long run. Coordinated efforts need to be made from all stakeholders like family, university, society as well as government in order to provide a healthy platform to launch the young masses.

Source of Support: Nil.

Conflict of Interest: None.

Reference:

- [1] Barnes, S. Seraphine P. Brown, McCormack, K. McDermott, Robert J. Bryant, Carol A. & Kromrey, J. (2012): Perceived Parenting Style and the Eating Practices of College Freshmen, *American Journal of Health Education*, 43(1): 8-17.
- [2] Baseer, Md. Revathi, Ayesha, S. N. Ramesh, S.G. Hiremath, Sreekantha, (2015): Dietary habits and life style among Pre-university college students in Raichur, India, *International Journal of Research in Health Sciences*, 3(3): 407 -411.
- [3] Boucher, D. Gagné, C. & Côté, F. (2015): Effect of an intervention mapping approach to promote the consumption of fruits and vegetables among young adults in junior college: A quasi-experimental study, *Psychology & Health*, 30(11): 1306-1325.
- [4] Brown, M. Flint, M. & Fuqua, J. (2014): The effects of a nutrition education intervention on vending machine sales on a university campus, *Journal of American College Health*, 62(7): 512-516.
- [5] Brown, O.N. O'Connor, L.E. & Savaiano, D. (2014): Mobile MyPlate: a pilot study using text messaging to provide nutrition education and promote better dietary choices in college students, *Journal of American College Health*, 62(5); 320-327.
- [6] Das, B.M. & Evans, E.M. (2014): Understanding weight management perceptions in first-year college students using the health belief model, *Journal of American College Health*, 62(7): 488-497.
- [7] Food and Agriculture Organization of the United Nations (FAO) and the Pan American Health Organization (PAHO), *Panorama of Food and Nutrition Security in Latin America and the Caribbean*, (2017): Available at: <http://www.fao.org/3/a-i7914e.pdf>. Accessed 20 March 2019.
- [8] Lockwood, P. & Wohl, R. (2012): The Impact of a 15-Week Lifetime Wellness Course on Behavior Change and Self-Efficacy in College Students, *College Student Journal*, 46(3): 628-641.
- [9] Mallick, N. Ray, S. & Mukhopadhyay, S. (2014): Eating Behaviours and Body Weight Concerns among Adolescent Girls, *Advances in Public Health*, 1(1): 1-8.
- [10] Mukherjee, R. & Chaturvedi, S. (2017): A study of the dietary habits of school children in Pune city, Maharashtra, India, *International Journal Of Community Medicine And Public Health*, 4(1): 593-597.
- [11] Naidu, R. Nunn, J. & Swift, F.D. (2016): Oral health-related quality of life and early childhood caries among preschool children in Trinidad, *BMC Oral Health*, 16(1): 128-136.
- [12] Naidu, S. Baliga, S.S. Yadav, H. Mallapur, M.D. (2017): Pyschological factors affecting dietary habits of college going adolescents (17–19 years) in urban area of Belgaum, *International Journal of Medical Science and Public Health*, 6(1): 67-70.
- [13] Sam, A. Brooke, R. Noriega, Ju Young S. (2018): College students eating habits and knowledge of nutritional requirements, *Journal of Nutrition and Human Health*, 2(1): 13-17.

- [14] Silvia, L. Francesco, B. Armando, S. Tiziana, G. Lucia, P. Mauro, B. & Antonella, D.D. (2015): Assessment of lifestyle and eating habits among undergraduate students in northern Italy, *Annali dell'Istituto Superiore di Sanità*, 51(2): 154-161.
- [15] Sogari, G. Velez-Argumedo, C. Gómez, M.I. & Mora, C. (2018): College Students and Eating Habits: A Study Using an Ecological Model for Healthy Behavior, *Nutrients*, 10(12): 1823 –.
- [16] Stockton, S. & Baker, D. (2013): College students' perceptions of fast food restaurant menu items on health, *American Journal of Health Education*, 44(2):74-80.
- [17] WHO (World Health Organization) (1999): Programming for Adolescent Health and Development. Technical Report Series No. 886, Geneva, 1-2.