



ISSN (E): 2277-7695

ISSN (P): 2349-8242

NAAS Rating: 5.23

TPI 2022; SP-11(12): 750-754

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www.thepharmajournal.com

Received: 11-10-2022

Accepted: 21-11-2022

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Food habits of adolescents residing in tura town

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Abstract

This study aimed to assess the food eating habits of adolescents and the food choices influenced by the peer groups. Using a convenience sampling technique, a total number of 200 adolescents were selected to be a part of the study. A well-structured questionnaire on socio-demographic data, personal eating habits and food choices influenced by peer groups was used to assess the food habits of the adolescents. Results showed that adolescents preferred to eat ready-to-eat foods and processed foods rather than traditional home-cooked meals. It was also revealed that the most consumed food by the adolescents while going out were momos. In terms of peer groups, it was found that the boys' food choices were more likely to be influenced by peer groups compared to the girls.

Keywords: Food habits, adolescents, gender, peer groups

Introduction

Adolescence is a vulnerable age of life as health-related behaviours that drive the major chronic degenerative diseases begin or are reinforced through this period (WHO, 2016). Teenagers' food habits are essential determinants of both their current and future health (Kelder *et al.*, 1994; Wennberg *et al.*, 2015) [7, 17]. Adolescence is the period of dramatic change in the life of every person. The relatively consistent growth of childhood is rapidly transformed by an increase in the velocity of growth. This rapid spurt is also connected with hormonal, cognitive, emotional changes. All of these changes make special nutrition requirements. Adolescence is considered as a particularly nutritionally susceptible time of life for several reasons. The first one is the greater demand for nutrients because of the spectacular increase in physical growth and development. Second is the transformation of lifestyle and food habits of young people that affect both nutrient intake and requirements. Third are those youngsters with special nutrient requirements such as those who are engage in sports, have chronic diseases, diet excessively or those who use alcohol and drugs (Spear, 2002) [18]. Food consumption among adolescents also tends to differ according to their gender (Savidge *et al.*, 2007; Lake *et al.*, 2006) [19]. Studies across a number of countries have consistently shown that females' dietary patterns are better than those of males (Wardle *et al.*, 2004; Rappoport *et al.*, 1993; Fagerli *et al.*, 1999) [20, 21, 22]. Females are more likely to avoid high-fat foods, thereby consuming more fruits and fibre and restrict the salt intake than male. Therefore, the gender differences could be attributed to higher health consciousness among women (Wardle *et al.*, 2004) [20]. Furthermore, compared to male adolescents, adolescent women may be more anxious with weight-control behaviors (Sweeting and West, 2002) [23]. In addition, the manliness literature recommends that masculine philosophy and norms play a important role in disappointing men from eating healthily (Wang *et al.*, 2008; Prattala *et al.*, 2006; Vartanian *et al.*, 2007) [19, 24, 25]. Adolescents show unhealthy eating habits such as meal skipping and snacking on fast foods (Hong *et al.*, 2014; Savidge *et al.*, 2007; Larson *et al.*, 2016) [5, 19, 26]. Teenagers food behaviors may put in train unhealthy eating development for adult life (Kelder *et al.*, 1994; Wennberg *et al.*, 2015) [7, 17], and add to a number of health problems including overweight and obesity, metabolic syndrome, diabetes and a number of cancers (National Institute of Nutrition, 2010; Weichselbaum *et al.*, 2014) [10, 27]. Because of their hyper palatability, attractiveness and ready-to-eat attributes (Monteiro *et al.*, 2013) [9] these unnecessary foods are becoming a common and leading component of adolescent's diets in most economically urbanized countries (Savidge *et al.*, 2007; Braithwaite *et al.*, 2014; Dong *et al.*, 2015; Powell *et al.*, 2015) [19, 28] as well as developing countries like India (Kaushik *et al.*, 2011; Mahajan *et al.*, 2012) [6, 29]. Stress is a challenge to the normal homeostasis of a living being; in turn, the living being may respond to stress by creating a physiological reaction to take back the equilibrium lost by the impact of the stressor.

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One such homeostasis that is interrupted is that of the feeding actions (Yau and Potenza, 2013) ^[15]. The foods eaten during times of stress normally favor those of a high fat and/or sugar content. Because of the hyper palatable comfort foods such as fast food, snacks, and calorie-dense foods (Zellner *et al.*, 2006; Epel *et al.*, 2001; Oliver *et al.*, 2000) ^[16, 30, 31] even in the absence of hunger and lack of homeostatic require for calories (Rutters *et al.*, 2009) ^[32]; this consequence may be exacerbated in overweight or obese individuals as compared to lean individuals (Block *et al.*, 2009; Jastreboff *et al.*, 2013) ^[2, 33]. Individuals with high BMIs show a stronger relationship between chronic stress and weight gain than those with low BMIs who experience related degrees of stress (Block *et al.*, 2009) ^[2]. Consistent with this concept, stress-related eating is considerably connected with obesity in women (Laitinen *et al.*, 2002) ^[8]. In addition, overweight and obese individuals show sensitized to food cues, predominantly after experience to stress. It is also hypothesized that hyper palatable foods may serve as “comfort food” that acts as a variety of self-medication to disperse unwanted distress. Individuals who are in negative emotional states have been shown to favor the consumption of hedonically satisfying foods that are high in sugar and/or fat, whereas consumption of food during happy states favors less palatable dried fruits (Garg *et al.*, 2007) ^[4].

Materials and Methods

The research design used in the present study was exploratory type of research design. The subjects selected for the study were students from Bidanchi Secondary School and Mount Sinai Secondary School, Tura, Meghalaya. Adolescent boys and girls between 13 and 17 years of age, studying in schools in Tura were selected as study subjects. A convenience sampling technique was used to select 100 boys and 100 girls between 13 and 17 years. To assess the nutrient intake of the respondents, a Systematic Random Sampling method was adopted where in, every fourth person was selected, which amounted to a total of 50 adolescents which included 25 boys and 25 girls. A sample of two hundred adolescent boys and girls, aged 13-17 years old and willingness to be part of the study was the criteria for sample selection. A well-structured questionnaire on the dietary habits and food frequency was used to assess the dietary intake of adolescents. The data obtained during the study was consolidated and analyzed statistically.

Results and Discussion

The present study entitled “Food Habits of Adolescents Residing in Tura Town” was carried out to study the current food habits of adolescents. The consumption of comfort foods is increasing day by day. As most of the comfort foods are high in fats, carbohydrates and sugars, it may lead to many health problems like obesity, diabetes, heart diseases, etc.

Demographic details

The demographic details are given in table 1
Percent distribution of adolescents based on age, religion and residing area is given in table 1.

Table 1: Percent distribution of adolescents based on age, religion and residing area

Variables		Gender		Total (N=200)
		Boys	Girls	
Age	13-14 years	21	27	48
	14-15 years	16	22	38
	15-16 years	15	21	36
	16-17 years	48	30	78
Religion	Christian	100	99	199
	Hindu	0	1	1
Residing Area	Urban	87	78	165
	Rural	13	22	35

Age

The above Table 1 (fig 1) shows that the 48% boys and 30% girls were in the age group of 16-17 years and the number of adolescents in the age groups of 14-15 years and 15-16 years were very low compared to the other age group.

Religion

From the above Table 1 (fig 2), it is evident that the majority of the adolescents are Christian.

Residing area

This table 1 (fig 3) shows that the majority of adolescent boys and girls are from the urban background (boys-87%, girls-78%). Research finding shows that the preference of food differs with age and gender. Males prefer to eat warm, hearty, meal-related comfort foods (such as steak, casseroles and soups), while females are more likely to consume comfort foods that were more snack related (such as chocolate and ice Cream). In addition, young people preferred more snack-related comfort foods compared to those over 55 years of age (Wansink, 2003) ^[14].

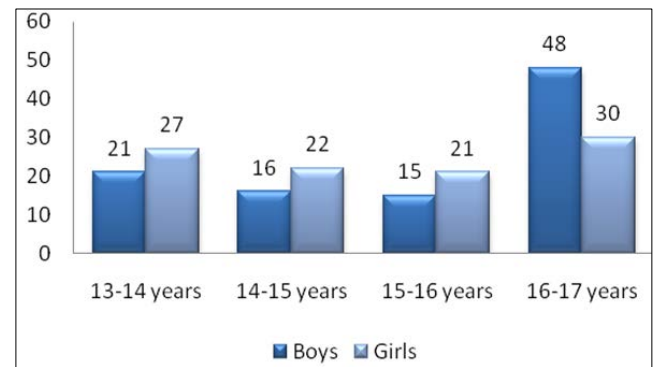


Fig 1: Percent distribution of adolescents based on age

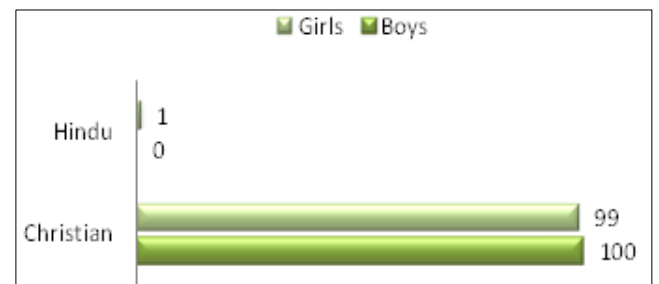


Fig 2: Percent distribution of adolescents based on religion

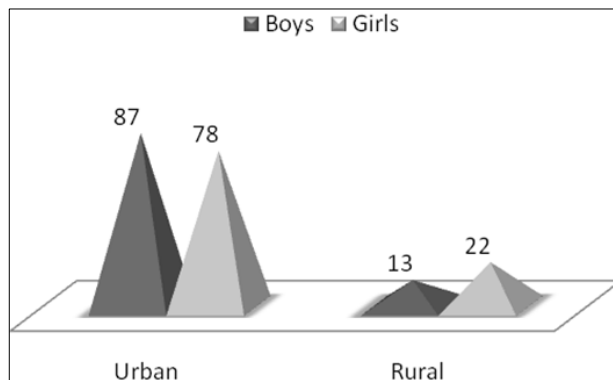


Fig 3: Percent distribution of adolescents based on residing area

Percent distribution of adolescents based on class and school is given in table 2

Table 2: Percent distribution of adolescents based on class and school

Variables		Gender		Total (N=200)
		Boys	Girls	
Class	VIII	34	40	74
	IX	27	30	57
	X	39	30	69
Name of the School	Bidanchi Secondary School	49	51	100
	Mount Sinai Secondary School	51	49	100

Class

From the above table 2 (fig 4), we can see that 27% boys and 30% girls are from IX standard and 39% boys and 30% girls are from class X standard whereas the higher percentage of adolescents are from VIII standard.

School

Table 2 (fig 5) shows that there is an equal percentage of boys

and girls in two schools. School food policies that decrease the access to foods high in fats and sugars are associated with less frequent purchase of these foods in school among high school students. Schools should examine their food-related policies and decrease access to foods that are low in nutrients and high in fats and sugars (Neumark-Sztainer *et al.*, 2005) [11].

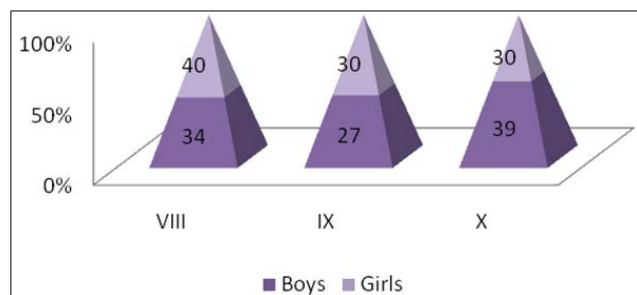


Fig 4: Percent distribution of adolescents based on class

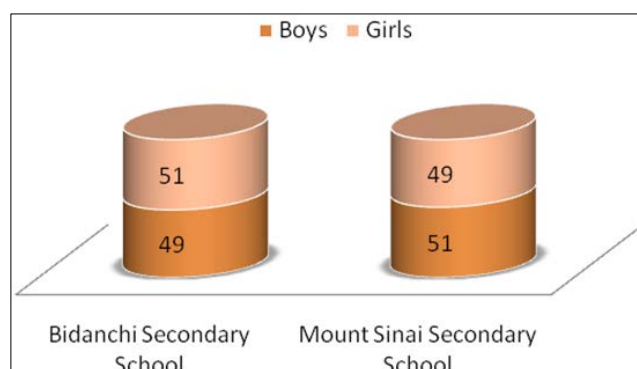


Fig 5: Percent distribution of adolescents based on school

Percent distribution of adolescents based on habit of eating out and food choice influenced by the peer group is given in table 3.

Table 3: Percent distribution of adolescents based on habit of eating out and food choice influenced by the peer group is given in table 3

Variables		Gender		Total (N=200)
		Boys	Girls	
Habit of eating out	Yes	79	88	167
	No	21	12	33
Frequency of eating out	Daily	22	25	47
	Thrice a week	4	3	7
	Twice a week	7	14	21
	Weekly	21	17	38
	Rarely	25	29	54
Habit of going to the party/treat	Yes	67	70	137
	No	33	30	63
Frequency of going to the party/treat	Daily	4	4	8
	Thrice a week	3	1	4
	Twice a week	2	3	5
	Weekly	14	18	32
	Rarely	44	44	88
Foods prefer to eat out	Momo	35	24	59
	Chaat	16	13	29
	Samosa	11	16	27
	Jhal muri	3	8	11
	Egg roll	4	11	15
	Pakoda	0	6	6
	Noodles	11	9	20
Food choice influenced by the peer groups	Yes	72	67	139
	No	28	33	61

Habit of eating out

It is evident from the above table 3 (fig 6), that the 25% adolescent boys and 29% adolescent girls has the habit of eating out rarely in a month (boys-25%, girls-29%).

Habit of going to a party/treat

From the above table 3 (fig 7), we can see adolescent boys and girls like to go for a party or treat rarely in a month (boys-44%, girls-44%).

Foods preferred while eating out

Table 3 shows that the most consume food by the adolescents while eating out is momos (boys-35%, girls-24%) and the lowest consumption is chaat (boys-16%, girls-13%).

Food choices influenced by peer groups

It is seen from the above table 3 (fig 8), that the 72% boys' and 67% girls' food choices is influenced by the peer groups. A recent study found that consuming foods from a fast-food restaurant was associated with an increase in 126 calories for children and 310 daily calories for adolescents for that day. Social support can have a positive effect on food choices and healthful dietary changes (Devine *et al.*, 2003) [3]. Social support from within the family and from partner was positively connected with improvements in consumption of fruits and vegetables (Sorensen *et al.* 1998a) [12] and with the preparative stage of improving the eating habits, correspondingly (Sorensen *et al.* 1998b) [13]. Social support may also improve promotion through developing a sense of group belonging and helping people to be more experienced and self-efficacious (Berkman 1995) [1].



Fig 8: Percent distribution of adolescents based on food choice influenced by the peer groups

Conclusion

In the present study, it was found that the most consumed food by the adolescents while eating out were momos and was the highest in terms of percentage of adolescent's food choices that is influenced by the peer groups. Majority of the adolescents were from the Christian community and most of the adolescent boys and girls were from urban background.

Acknowledgement

The author is thankful to Late Dr D. Jasmine Jenifer Arulmani for her guidance and support to complete the research study.

References

- Berkman LF. the role of social relations in health promotion. *Psychosomatic Medicine*. 1995;57(3):245-54.
- Block JP, He Y, Zaslavsky AM, Ding L, Ayanian JZ. Psychosocial Stress and Change in Weight among US Adults. *American Journal of Epidemiology*. 2009;170(2):181-92.
- Devine CM, Connors MM, Sobal J, Bisogni CA. Sandwiching it in: spillover of work onto food choices and family roles in low and moderate income urban households. *Social Science and Medicine*. 2003;56:617-630.
- Garg N, Wansink B, Inman JJ. The influence of incidental affect on consumers' food intake. *Journal of Marketing*. 2007;71(1):194-206.
- Hong S, Bae HC, Kim HS, Park EC. Variation in meal-skipping rates of Korean adolescents according to socio-economic status: results of the Korea youth risk behavior web-based survey. *Journal of Preventive Medicine and Public Health*. 2014;47:158-68.
- Kaushik JS, Narang M, Parakh A. Fast food consumption in children. *Indian Pediatrics*. 2011;48:97-101.
- Kelder SH, Perry CL, Klepp KI, Lytle LL. Longitudinal tracking of adolescent smoking, physical activity, and food choice behaviors. *American Journal of Public Health*. 1994;84:1121-6.
- Laitinen J, Ek E, Sovio U. Stress-related eating and drinking behavior and body mass index and predictors of this behavior. *Preventive Medicine*. 2002;34(1):29-39.
- Monteiro CA, Moubarac JC, Cannon G, Nx SW, Popkin B. Ultra-processed products are becoming dominant in the global food system. *Obesity Reviews*. 2013;14:21-8.
- National Institute of Nutrition. *Dietary guidelines for Indians: a manual*. 2nd Ed. National Institute of Nutrition, Hyderabad; c2010.

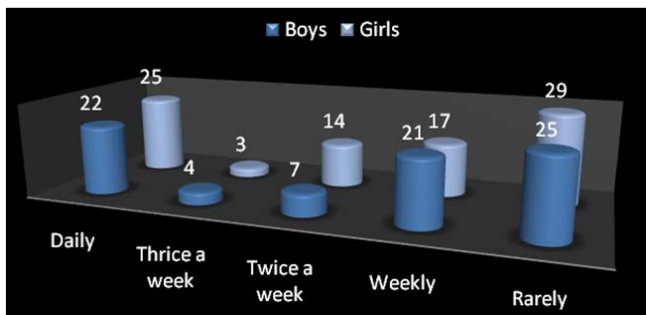


Fig 6: Percent distribution of adolescents based on frequency of eating out

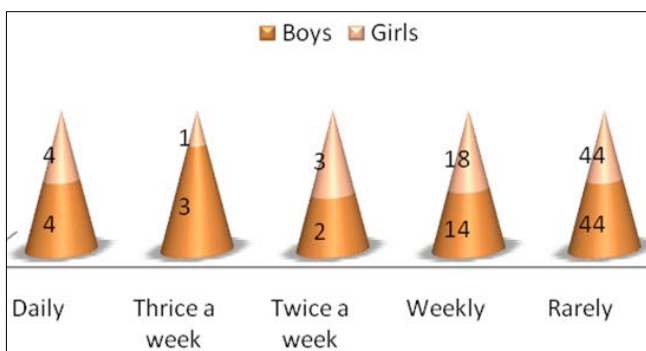


Fig 7: Percent distribution of adolescents based on frequency of going to party/treat

11. Neumark-Sztainer D, French SA, Fulkerson JA. School lunch and snacking patterns among high school students: Associations with school food environment and policies. *International Journal of Behavioral Nutrition and Physical Activity*; c2005.
12. Sorensen G, Hunt MK, Cohen N, Stoddard A, Stein E, Phillips FB, *et al.* Worksite and family education for dietary change: The Treadwell 5-A-Day program. *Health Education Research*. 1998A;13:577-591.
13. Sorensen G, Stoddard A, Macario E Social support and readiness to make dietary changes. *Health Education and Behaviour*. 1998B;25:586-598.
14. Wansink B, Cheney M, Chan N. Exploring comfort food preferences across age and gender. *Physiology & Behavior*. 2003;79:739-74.
15. Yau Y, Yip S, Potenza MN. Understanding "Behavioral Addictions": Insights from Research. *Principles of Addiction Medicine*. 5th ed. Lippincott Williams & Wilkins; Philadelphia, PA: in press; c2013.
16. Zellner DA, Loaiza S, Gonzalez Z, Pita J, Morales J, Pecora D, *et al.* Food selection changes under stress. *Physiology & behavior*. 2006;87(4):789-93.
17. Elert N, Andersson FW, Wennberg K. The impact of entrepreneurship education in high school on long-term entrepreneurial performance. *Journal of Economic Behavior & Organization*. 2015 Mar 1;111:209-23.
18. Spear BA. Adolescent growth and development. *Journal of the Academy of Nutrition and Dietetics*. 2002 Mar 1:S23.
19. Savage G, MacFarlane A, Ball K, Worsley A, Crawford D. Snacking behaviours of adolescents and their association with skipping meals. *International Journal of Behavioral Nutrition and Physical Activity*. 2007 Dec;4(1):1-9.
20. Wardle DA, Bardgett RD, Klironomos JN, Setälä H, Van Der Putten WH, Wall DH. Ecological linkages between aboveground and belowground biota. *science*. 2004 Jun 11;304(5677):1629-33.
21. Rappoport P, White EN. Was there a bubble in the 1929 stock market?. *The Journal of Economic History*. 1993 Sep;53(3):549-74.
22. Fagerli RA, Wandel M. Gender differences in opinions and practices with regard to a "healthy diet". *Appetite*. 1999 Apr 1;32(2):171-90.
23. Sweeting H, West P. Gender differences in weight related concerns in early to late adolescence. *Journal of Epidemiology & Community Health*. 2002 Sep 1;56(9):700-1.
24. Tolonen H, Helakorpi S, Talala K, Helasoja V, Martelin T, Prättälä R. 25-year trends and socio-demographic differences in response rates: Finnish adult health behaviour survey. *European journal of epidemiology*. 2006 Jun;21(6):409-15.
25. Vartanian LR, Herman CP, Polivy J. Consumption stereotypes and impression management: How you are what you eat. *Appetite*. 2007 May 1;48(3):265-77.
26. Larson HJ, De Figueiredo A, Xiahong Z, Schulz WS, Verger P, Johnston IG, Cook AR, Jones NS. The state of vaccine confidence 2016: global insights through a 67-country survey. *EBioMedicine*. 2016 Oct 1;12:295-301.
27. Deng L, Liang H, Burnette B, Beckett M, Darga T, Weichselbaum RR, Fu YX. Irradiation and anti-PD-L1 treatment synergistically promote antitumor immunity in mice. *The Journal of clinical investigation*. 2014 Feb 3;124(2):687-95.
28. Pearson N, Braithwaite RE, Biddle SJ, van Sluijs EM, Atkin AJ. Associations between sedentary behaviour and physical activity in children and adolescents: a meta-analysis. *Obesity reviews*. 2014 Aug;15(8):666-75.
29. Ference BA, Yoo W, Alesh I, Mahajan N, Mirowska KK, Mewada A, Kahn J, Afonso L, Williams KA, Flack JM. Effect of long-term exposure to lower low-density lipoprotein cholesterol beginning early in life on the risk of coronary heart disease: a Mendelian randomization analysis. *Journal of the American College of Cardiology*. 2012 Dec 25;60(25):2631-9.
30. Epel E, Lapidus R, McEwen B, Brownell K. Stress may add bite to appetite in women: a laboratory study of stress-induced cortisol and eating behavior. *Psych neuroendocrinology*. 2001 Jan 1;26(1):37-49.
31. Oliver G, Wardle J, Gibson EL. Stress and food choice: a laboratory study. *Psychosomatic medicine*. 2000 Nov 1;62(6):853-65.
32. Rutters F, Nieuwenhuizen AG, Lemmens SG, Born JM, Westerterp-Plantenga MS. Acute stress-related changes in eating in the absence of hunger. *Obesity*. 2009 Jan;17(1):72-7.
33. Jastreboff AM, Sinha R, Lacadie C, Small DM, Sherwin RS, Potenza MN. Neural correlates of stress-and food cue-induced food craving in obesity: association with insulin levels. *Diabetes care*. 2013 Feb 1;36(2):394-402.