

Activity Behaviour and eating habits among adolescents of District Pulwama Kashmir

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Abstract

Background: Changes in dietary habits and lifestyle are considered as the main factors associated with several diet-related diseases in the Kashmir. In Kashmir people adopt the faulty dietary habits, follow the wrong myths and had wrong knowledge regarding diet. So taking in consideration these points in minds the aim of our study was, therefore, to identify the activity behaviour and eating habits amongst adolescents of district Pulwama Kashmir as adolescents are our future generation and early development effects the later development.

Design: A cross-sectional study was carried out amongst male and female adolescents. A sample size of 300 adolescents (138 males and 162 females), aged 15-18 years was selected from registered coaching centre's at Pampore of district Pulwama during the year 2015.

Results: Skipping breakfast was significantly greater in Kashmir adolescents. All studied respondents ate snacks during school break which they brought from the school canteen. Furthermore, chips were more preferred by both respondents. Female respondents prefer sweets, biscuits and chocolates than the male respondents. Street fried foods like nadur mounj, tilikar, pakoda are consumed by males than the females. Dinner was the only family meal in adolescents. About 76.66% respondents watched TV for 1-2 hours a day (70.2% boys and 82% girls). About 52.89% males and 36.41% females eat while watching TV. It was also observed that surfing internet was also common among the adolescents as they think that life is incomplete without the internet. About 70% of males practiced sports everyday as against 32.71% of females and 46.37% participated in sports activity outside school were males and no females respondents participated in activity outside the school due to social and cultural factors.

Conclusion: It seems that the adolescents in Pulwama district of Kashmir valley are moving towards unhealthy dietary habits and lifestyles, which in turn will affect their health status in the future. Promoting healthy lifestyle and eating habits should be given a priority in school health programs.

Keywords: Adolescent, dietary habits, fast foods, lifestyle, physical activity

1. Introduction

Adolescence is the period of transition from childhood to adulthood with accelerated physical, psychological, biochemical and emotional development. It is the period when the final growth spurt occurs [1]. During recent decades, Kashmir has witnessed dramatic lifestyle changes including meal pattern. They accept the sedentary life style and faulty dietary habits. During adolescence period, young people are assuming responsibility for their own eating habits, health attitudes and behaviors. As we know that the health status of adolescents is dependent upon food intake to promote optimal physical growth, social and cognitive development. Nutritional problems of adolescents, whether under nutrition, are mainly the result of dietary inadequacies [2]. These may be linked to a number of physiological, socio-economic and psychosocial factors. The eating behavior is a complex process which is influenced by social, cultural, biological, ecological, and personal factors. From a developmental perspective view, societal influence increases as the child ages and parental influences remains important throughout childhood [3]. There is a strong relationship

Between obesity and food intake and dietary patterns of adolescents. Scientific evidence is increasing about the dietary factors associated with this relationship, specifically a low meal frequency and skipping breakfast [4]. In order to prevent diet-related diseases, it is our duty to adopt healthy eating habits in our kids from early period of time and maintain it during the period of adolescence. In today's world we witnessed the progressive erosion of the traditional Kashmiri food and accept the easily available fried and packed foods which are dense in Tran's fatty acids and saturated fatty acids. Socio cultural and economic changes are accelerating this problem. The intake of fruits, vegetables, milk, and fruit juices decreases in our valley, whereas the intake of soft drinks increases in adolescence [5]. In view of the above conditions in Kashmir, it was considered of interest to find out the activity behaviour and eating habits among Kashmiri adolescents. This paper will provide a basis for health educators and policy makers to develop proper nutrition-related education programs at schools that promote good eating habits among adolescents.

2. Methodology

This is a cross-sectional study carried out during the year 2015 in Pampore town district Pulwama which is also known as Saffron town as it is famous for saffron plantation. The study was carried out among secondary school students enrolled in recognized education coaching centre's where students from both private and government schools residing in rural and urban areas were enrolled. The sample size was 300, aged between 15-18 years. The data was collected through self-made close ended questionnaire. The students were assembled in the separate classroom where the objectives of the study as well as the questions in the questionnaire were explained to the students. Then the students were asked to fill out the questionnaire, which was self-administrated. The permission regarding to conduct this research was obtained from the head of the centre, which in turn informed the students before conducting the study. The questionnaire was validated by conducting the pilot study on 20 students. The pilot study assessed the items where the participants were reluctant to answer any questions. The questionnaire required only 15 minutes to be completed by the students. The final draft of the questionnaire had been modified based on the feedback received from the students. The students participating in the pilot study were excluded from the selected sample for the study. The questionnaire was related to socio-demographic data including age, sex, residence and educational status of parents. The questionnaire also consists of different questions pertinent to students' dietary habits and lifestyle. Information related to physical activity such as frequency of playing sports inside and outside the school and participation in physical education classes was obtained through self-reported questions.

3. Data Analysis

All the questionnaires were reviewed for completion immediately after administering them to the students at the tuition centers. The data obtained through questionnaire was consolidated; classified and tabulated depending on the kind of information required, keeping in view the objective of the study. The data processing included editing, coding, classification and tabulation so that they were available to analysis. All data were statistically analyzed through statistical package for social science (SPSS) software version 16 and Microsoft excel.

4. Results

The Socio-demographic characteristics of the studied adolescents that participated in the study are given in Table 1. There was statistically non-significant difference in age distribution between males and females. It was observed that the majority of the respondents were from rural areas as they prefer this center for coaching as this centre is near to their residential area. Statistically there is significant difference between male and female residence ($P < 0.05$). It was observed that majority of the adolescents were from private institutes than government schools. It was also observed that 86.33% had nuclear type of family and remaining 13.66% had joint type of family system. About 50.66% of the adolescents fathers and 41% of their mothers had medium educational level and 8% of the adolescent's fathers and 35.33% of their mothers had received low education level. A higher level of education for fathers (41.33%) was observed as compared with that of the mothers (23.66%). The present study showed that majority of adolescents had Rs 10000-20000 monthly family income and only 15.66% were from low family income.

Table 1: Socio Demographic characteristics of studied Adolescents

Socio demographic characteristics	Total (%)	Male (%)	Female (%)	Chi square	P-value*
Sample Number (%)	300 (100)	138 (46)	162 (54)		
Age (years)					
15	63 (21.0)	22 (15.94)	41 (25.30)	32.318	>0.05
16	137 (45.66)	49 (35.50)	88 (54.32)		
17	42 (14.0)	34 (24.60)	8 (4.90)		
18	58 (19.33)	33 (23.90)	25 (15.42)		
Residence				12.811	<0.05
Rural	213 (71)	112 (81.15)	101 (62.34)		
Urban	87 (29)	26 (18.84)	61 (37.65)		
School				30.164	<0.01
Private	234 (78)	88 (63.76)	146 (90.10)		
Government	66 (22)	50 (36.23)	16 (9.87)		
Type of family				0.93	>0.05
Nuclear	259 (86.33)	122 (88.40)	137 (84.56)		
Joint	41 (13.66)	16 (11.59)	25 (15.43)		
Educational Status of Father				4.49	>0.05
Low	24 (8.00)	9 (6.52)	15 (9.25)		
Middle	152 (50.66)	79 (57.24)	73 (45.06)		
Higher	124 (41.33)	50 (36.23)	74 (45.67)		
Educational Status of mother				31.86	>0.05
Low	106 (35.33)	26 (18.80)	80 (49.38)		
Middle	123 (41.00)	67 (48.55)	56 (34.56)		
High	71 (23.66)	45 (32.60)	26 (16.00)		
Income status of family per month				7.62	<0.05
Rs 10000	47 (15.66)	13 (9.42)	34 (20.98)		
Rs 10000-20000	156 (52.00)	76 (55.00)	80 (49.30)		
Rs < 20000	97 (32.33)	49 (35.50)	48 (29.60)		

*P-value indicates the comparison between male and female respondents

The meal patterns of the studied Kashmiri adolescent are depicted in the Table 2. It was observed that 65.33% of the adolescents did not consume breakfast regularly and 28% of the adolescents did not take lunch daily. The proportion was nearly double in female respondents than the male respondents. It was also observed that 51.44% male adolescents eat breakfast on the way to school and in case of females 53% take breakfast at their home. Majority of the studied respondents ate food from the school canteen and only 28.33% ate food brought from home. It was observed that dinner was the only family meal in adolescents. The table also showed that breakfast and evening meal was frequently skipped by respondents due to lack of time, early school time and poor appetite but in case of studied female respondents 44.4% skipped meal as a weight control.

Table 2: Meal pattern of Kashmiri Adolescents

Food consumption	Male (%)	Female (%)
Eating breakfast regularly		
Yes	55 (39.80)	49 (30.20)
No	83 (60.10)	113 (69.70)
Eating lunch regularly		
Yes	74 (53.60)	142 (87.60)
No	64 (46.30)	20 (12.34)
Place of eating breakfast		
At home	44 (31.88)	86 (53.00)
At school	23 (16.66)	27 (16.66)
On the way	71 (51.44)	49 (30.24)
Bring food (snacks) from home		
Yes	32 (23.18)	53 (32.70)
No	106 (76.80)	109 (67.20)
Eating food from school canteen		
Yes	138 (100)	147 (90.74)
No	0	15 (9.25)
Which is your Family meal		
Breakfast	15 (10.86)	42 (25.90)
Lunch	12 (8.69)	14 (8.64)
Evening tea	47 (34.00)	34 (20.98)
Dinner	64 (46.30)	72 (44.44)
Skipping any meal		
Breakfast	52 (37.68)	49 (30.24)
Lunch	20 (14.40)	33 (20.30)
Evening tea	64 (46.30)	72 (44.40)
Dinner	2 (1.44)	8 (4.93)
Reason of skipping meal		
Lack of time	52 (37.60)	46 (28.30)
Early school time	42 (30.40)	34 (20.90)
Weight control	13 (9.42)	72 (44.40)
Lack of appetite	31 (22.40)	10 (6.17)

The snacking habits of the studied adolescents are presented in the Table 3. It was observed that both male and female studied respondents ate snacks daily. They took these snacks between the lunch times. In case of male respondents 60.8% ate snacks while they are going to home from school than the females. In case of different types of snacks, chips were preferred by all studied respondents on daily basis. 41.66% studied respondents drank cold drinks on daily basis followed by thrice in a week. Further it was observed that 34.78% male adolescents eating burgers, biscuits as majority (40%) of female respondents liked it most on daily basis. 42.75% male respondents took sweets and chocolates twice a week but 40% female respondents took sweets, chocolates thrice in a week. It was also observed that street foods were consumed by majority of the male respondents

on daily basis but 61.72% females took street fried foods thrice in a week as they are weight conscious.

Table 3: Distribution of Adolescents as per snacking habits

Fast food intake per week	Male (%)	Female (%)
Eating snacks daily		
Yes	138 (100)	162 (100)
No	0	0
Eating snacks between lunch		
Yes	67 (48.50)	49 (30.20)
No	71 (51.44)	113 (69.70)
Eating snacks while going home		
Yes	84 (60.80)	79 (48.76)
No	54 (39.13)	83 (51.20)
Frequency of chips		
Daily	138 (100)	
Once		162 (100)
Twice		
Thrice		
Frequency of cold drinks		
Daily	58 (42.0)	67 (41.35)
Once	-	13 (8.00)
Twice	39 (28.2)	24 (14.80)
Thrice	41 (29.7)	58 (35.80)
Frequency of biscuits, sandwiches and burgers		
Daily	48 (34.78)	64 (39.5)
Once	5 (3.62)	16 (9.8)
Twice	35 (25.30)	27 (16.6)
Thrice	50 (36.23)	55 (34.0)
Frequency of chocolates and sweets		
Daily	26 (18.80)	61 (37.65)
Once	33 (23.90)	23 (14.10)
Twice	59 (42.75)	13 (8.00)
Thrice	20 (14.40)	65 (40.00)
Frequency of street fried foods		
Daily	76 (55.00)	10 (6.17)
Once	7 (5.00)	44 (27.16)
Twice	39 (28.20)	8 (4.90)
Thrice	16 (11.50)	100 (61.72)

The activity behaviour of studied adolescents is shown in Table 4. Only a negligible percentage did not watch television (TV) daily. It was observed that 70.2% males and 82.0% females watch TV for 1-2 hours daily. Of the studied adolescents, 44% always consumed food while watching TV while only 12.33 % studied adolescents did not. More than 67% of adolescents do chatting on phone with their friends for 1-2 hours daily followed by 3- 4 hours. Further it was observed that all studied adolescents browsed the Internet daily as they think that life is hell without internet. A very small proportion of male adolescents (1.44%) ate while browsing the Internet. 70.28% male respondents participated in sporting activity at school, with a greater proportion of females (67.28%) did not participated in any type of school activity. Participation in sports activities in school was high in male adolescents. Amongst the adolescent participants who don't participate in sports activities outside school, the majority were females while only 53.62% were males.

Table 4: Activity behaviour of studied Adolescents

Life style habits	Male (%)	Female (%)
How many hrs you watch TV		
1-2 hours	97 (70.2)	133 (82.0)
3-4 hours	27 (19.5)	29 (17.9)
More than 5 hrs	14 (10.1)	0
Do you eat while watching TV		
Always	73 (52.89)	59 (36.41)
Sometime	44 (31.88)	87 (53.70)
Never	21 (15.20)	16 (9.87)
How many hrs you are chatting on phone with your friends		
1-2 hours	94 (68.10)	106 (65.43)
3-4 hours	35 (25.36)	52 (32.00)
More than 5 hrs	9 (6.52)	4 (2.46)
Using Internet		
Every day	138 (100)	162 (100)
Not using	-	-
1-2 hrs	-	-
3-4 hrs	-	-
Eating while using Internet		
Don't eat food	136 (98.55)	162 (100)
Eat	2 (1.44)	-
Do you participate in sporting activities at school		
Yes	97 (70.28)	53 (32.71)
No	41 (29.70)	109 (67.28)
Do you participate in games outside the school		
Yes	64 (46.37)	0
No	74 (53.62)	162 (100)

5. Discussion

The present study on activity behaviour and eating habits among adolescents of district Pulwama Kashmir provides a view regarding the faulty dietary habits among adolescents. The study was conducted at registered coaching center's where both private and government school students were registered during the year 2015. The information was collected by using the self-made questionnaire after reviewing the literature related to this topic. The present study showed that majority of them was from rural areas with high income group, had nuclear type of family system and most of the studied respondents were studying at private institutes. The parents of studied adolescents received middle level education. There is less time available for working parents which directly effects on the health status of their children. The present study showed that majority of them skipping breakfast. These findings are correlated with other studies that particularly females may use skipping meals as a strategy for weight control or as a method of dieting^[6]. For males, however, it may be associated with lack of time, early school activities, irregular schedule or a poor appetite first thing in the morning^[7, 8]. As per our study more than 50% of respondents skipped one or more meal per day. Breakfast and evening meal are the meals most often missed by studied adolescents due to school, and private lesson activities. The missed breakfast was replaced by eating snacks on the way to school. Our study also showed the same findings in terms of skipping meals. It was observed that dinner was only family meal in both male and female adolescents as on other meal times they are busy with school or tuition centre, social gatherings or

playing with friends. Junk food has become a prominent feature of the diet of adolescents throughout the world^[9]. Our study showed a relatively high intake of fast foods by adolescents while watching TV, there is evidence that it is associated with negative outcomes such as poor dietary habits^[10]. In recent years, computers, laptops and cell phones play a vital role in today's life and become a part of life especially in this period as the need for information has increased and for updating and enhancing their knowledge. There is mounting evidence that excessive TV viewing among adolescents can seriously challenge emotional and physical well-being^[11]. Our study indicates that a good number of adolescents spend a substantial portion of their time in watching TV or surfing the Internet every day. While there are potential benefits from watching some TV programs and using the Internet, but it also influence the consumption of unhealthy food habits in adolescents^[12]. The present study also showed that the proportion of adolescents who eat while using the Internet was low; snacking while watching TV especially amongst boys was high. Gender difference was significant with regard to practicing sports during school hours and also outside school; however, females were less active than males. The reason for girls not participating in sports outside the school was social and religious norms, myths and restrictions that may preclude female students from engaging in public sports.

6. Conclusion

The present study pertains to Kashmiri adolescent people provide an initial insight in the activity behaviour and eating habits. Adolescents in Pulwama district of Kashmir valley may follow unhealthy eating habits in conjunction with a diet high in saturated and Tran's fatty acids, high sugars and low in fiber and they accepted the sedentary life style. This may increase the risk factors for chronic non communicable diseases in a later age such as coronary heart disease, diabetes, hypertension, obesity and cancer. About 44% of students consume breakfast daily and majority of the students skip their meals due to lack of time. Snacks were consumed by all studied students on daily basis. Dinner was the only family meal in adolescents. There is a strong need for providing nutrition education among both school children and emphasis their parents regarding the importance of healthy dietary guidelines as per sex, age and activity. Regular interaction between parents, adolescents, school authorities, and health personnel is required to emphasize the connection between health, healthy food choices, and lifestyle habits. Adolescents should be advised not to skip meals, particularly breakfast, eat regular meals using the food guide pyramid and eat nutritious snacks prepared at home.

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Conflicts of Interest

The authors declare that they have no conflicts of interest

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