Original Article

Commonly Reported Illnesses among the College Students of Birmingham, United Kingdom

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Abstract

Introduction: Career of adolescent college students may be influenced by physical illness. However it has not been observed to characterize the common health problems and beverage intake among these students or had been studied less often so, there might have been information gaps in the knowledge in this aspects.

Aim and objectives: The aim of this study was to identify the commonly prevalent health issues among such college going adolescents students in studying the nature of taking beverages and thus to associate if any relation exist(s) between such beverage intake and prevalent illness/disease in these students.

Methodology: This observational type of cross-sectional study was conducted among the adolescents college students (of Year 12 & 13) studying at the University of Birmingham School Sixth Form, England, UK.

This study was conducted among the students of University of Birmingham School Campus for about 12 months, (from July 2022 to June 2023). All the 115 students enrolled, for the study population from which 90 samples were drawn using simple random sampling. Data were collected by employing face to face interview through a semi-structured questionnaire during my free time in between class intervals, administrating a face to face interview method.

Results: The mean age of 90-A level students was 16.74 ± 0.59 years, yielding a male predominance (83%). Most students preferred to drink artificial beverage (61%) other than any natural drink (21%). The top most common morbidity was respiratory illness (36%), the largest number among them 15% of who were suffering from upper respiratory tract illness (URTI). While assessing the commonly occurred morbidity (17%) reported to have common cold. Followed by about 1/3rd of students (33%) had been suffering from neurological diseases, it was the second most common illness and 4% had been suffering from depression and anxiety. when one tenth used to suffer from headache (14%).

Using a non-parametric test, it indicated not to yield any association between the food behaviours of beverage intake with any of the prevailing systemic illness among the students.

Conclusion: Students suffered mostly from URTI and/or common cold followed by neurological disorders/headache. The finding thus emphasizes the needs of regular health check-up of these college students, at par

Key words: Common illness, College students, United Kingdom

Background

Of 10.6 million children studying in school level (year 1 to 13) in the UK, 2.75 million belong to secondary school and college levels. They have a bright future. Their career may be influenced by this disease prevailing condition.[1]

Adolescent and children health is an important issue in England and the National Health Service (NHS), UK provide health care based service delivery depending on their needs, funded by the UK government since 1984. However, prevalence of Non Communicable Disease (NCD) is more (89% death) than communicable diseases.

Respiratory and Neurological illnesses are more common in UK that also encompasses College and University students. [2]

Most common problems were cough and cold, asthma, hay fever etc. that were the most common respiratory illness, among the college and university students in UK. Followed by neurological disorder, headache, depression, anxiety, dizziness, insomnia, migraine remains the most common neurological illness.[2]

Student career may be influenced by the eating patterns and their diseases. Students take various type of drinking products with food or other than food. Beverage drinking is an important part of young life. It is a product of hunger reduction and entertainment also.

There are many types of drinking substances, from soft drinks to hard drinks, other than water. Choice varies

person to person. These are made of mostly artificial ingredients. The transition of school to college campus life may be associated with increased autonomy over drink choices, or food intake and it budget, and exposure to new social groups and food cultures.

In this college campus life there is high intake of beverage drink and fast foods and low consumption of fruit and vegetables.[3] It is the shifting point of dietary behaviours track from childhood to adolescence.[4] IT is reported that transition from school to college or university life has been associated with unfavorable changes from drink to fast food intake, increases in alcohol and sugar containing drinks and snack foods, and decreases in fibrous food consumption.[5] During their college life period it has been identified that they gain body weight.[6,7] But, such weight gain may have long-term repercussions, since overweight during young adulthood has been identified as a significant predictor of obesity later in life.[8] This overweight and obesity is responsible for acute or chronic illness of minor and major varieties of Non Communicable Diseases (NCDs) and Communicable Diseases (CDs).

Common health problems and dietary pattern approach has been identified in various UK population groups.[9] However it has not been employed to characterize the common health problems and habits f beverage taking by the adolescent students. This provides an information gap for college students. This study aimed to identify common morbidities and beverage drinking patterns that exist within a UK college student population, to examine socio-demographic variables underpinning these patterns.

Based on this aforementioned literature it becomes obvious that food intake pattern remains a major determinant among the college students in many countries including UK.[10] So, this study was undertaken to study the prevailing morbidities and/or infection diseases among these adolescents college going students in Birmingham, UK, and to assess if there are associated with their food behaviour.

Methodology

Study type: Descriptive type of cross sectional study.

Duration of the study: About 12 months, from July 2022 to June 2023.

Study Population: Of all 115 students were enrolled of year 11 and 12 at university of Birmingham School sixth form.

Study Place: University of Birmingham School sixth form, about 10,000 square meter green campus with three stored buildings, located at Weoley Park Road, Selly Oak at Birmingham, UK. It was one of the first ten schools in Birmingham where about 1000 mixed gender 11 to 18 years' old student studies, belonging to 7 to 13 year for GCSE and A levels. There was 115 pupils in year 12 and 13 at the A level student.

Sample size calculation: Z^2 pq/d^2 (Z-1.96, p-50%, q-100-p, degree of precision-9, at 95% Confidence Interval, so, $(1.96)^2$ x 50 x 50 / 9^2 = 118 students

Sample size: Total 90 sample were collected from simple random sampling (SRS) from 115 students.

Study instrument: Data were collected using semi structured questionnaire.

Data collection procedure: Face to face interview during my free time of class intervals period.

Working Definitions:

Disease- A disease refers to specific abnormal condition or disorder that affects the body or mind and hampers normal functioning. [11]

Illness- It refers to the individual's personal experiences of being unwell or not feeling well due to a disease or a health condition. [11]

Sixth form: It is refers to the last two years of secondary education in England, Wales and Northern Ireland. They are commonly referred to as years 12 and 13 in schools, although students can attend a college and simply be in their first or second year as they have moved on from school. **GCSE**- General Certificate of Secondary Education, it is an academic qualification, generally taken in a number of subjects by pupils in secondary education in UK.

Artificial Beverage- these are made by artificial ingredients, like Coca Cola, Boost, and Sting etc. **Natural Beverage**- These contained natural ingredients, like milk, Vino, Orange juice etc. [11]

Exclusion criteria: Students who were not interested.

Inclusion criteria: All students of year 11 and 12 of University of Birmingham School sixth form.

Data analysis: All the collected yet verified/double checked data was entered into the SPSS (Statistical Package for Social Science),V. 22. Mostly, descriptive, and inferential statistics were performed with frequency table with percentage and cumulative percentage.

Results

The study involved a total of 90 teenagers, with an average age of 16.74 ± 0.59 years. They were all college-level students, with the majority (66%) falling into the 17-year-old age group, of which 83% were males. Among these students, the majority (61%) preferred artificial beverages, while a minority (7%) opted for drinks containing alcohol (Table-II).

In terms of health concerns, the most prevalent category of health issues (36%) among the participants was respiratory illnesses (Table-IV). Notably, 17% of the students suffered from common cold-like upper respiratory tract infections (Table-III). The second most common category of illnesses (33%) fell under the nervous system (Table-IV), with 14% experiencing headaches and 8% dealing with depression and anxiety (Table-III).

"The results of the non-parametric test (Table-V) indicate that there was no statistically significant relationship between the choices of beverages among students and their overall health issues.

Table-I
Comparison between age and gender of the respondent (n=99)

Age	Sex of respondents			P value
	Male	Female	Total	
16 years	26 (29%)	05 (6%)	31 (34%)	
17 years	49 (54%)	10 (11%)	59 (66%)	0.61
	75 (83%)	15 (17%)	90 (100%)	

Most students (75%) were male and 17 years old students were dominant in number (66%).

Table-II
Variability of Nature of beverage according to sex distribution (n=99)

Nature of drink	Sex of respondents			P value
	Male	Female	Total	
Natural beverage	15 (17%)	04 (4%)	19 (21%)	
Artificial beverage	47 (52%)	08 (9%)	55 (61%)	0.79
Alcohol containing beverage	04 (4%)	02 (2%)	6 (7%)	
Others	09 (10%)	01 (1%)	10 (11%)	
	75 (83%)	15 (17%)	90 (100%)	

Most students (61%) prefer artificial beverage to drink and above half of all male students (52%) were included in this group. A minor amount (7%) of them like to drink alcohol containing beverage.

Table-III
Illness status of the students (n=90)

	Variables	Frequency	Percentage
1	Common cold, cough, asthma, nose bleeding, hay fever	32	36%
2	Headache, anxiety, depression, dizziness, insomnia, migraine	30	33%
3	Back pain, joint pain	19	21%
4	Stich in abdomen, lung cancer, irregular fever and others	19	21%
	Total	90	100%

Above one third (36%) of students were suffered from respiratory illness and common cold was the top most illness (17%) of total variabilities. Second most common (14%) illness was the headache of all morbidities.

Table-IV

System specific prevalence of illness among students (n=90)

	Variable	Frequency	Percentage
1	Respiratory and immune system	32	36%
2	Neurological system	30	33%
3	Musculoskeletal system	19	21%
4	Digestive system	04	04%
5	Others	15	17%

The respiratory and immune systems emerged as the most vulnerable among all students, with 36% experiencing issues in this category. A significant proportion, specifically more than one third of the students, dealt with illnesses related to the neurological system. Musculoskeletal problems affected more than one-fifth of the participants

Table-V

Inferential study on nature of beverage intake and systemic illness (n=90)

	Variable of systemic illnesses	Type of Beverages			
		Natural drink	Artificial drink	Alcohol containing drink	Others
1	Irregular fever & Others	10	20	1	5
2	Respiratory & immune system	3	21	4	2
3	Neurological system	0	17	0	0
4	Musculoskeletal system	3	2	0	0
5	Digestive system	1	1	0	0
	Total	17	61	5	07

Fisher's Exact test Value : 20.63, df 18, P 0.29 (Non-significant)

In this non parametric test, it was indicating that there was no relationship in between nature of drinking beverage with systemic illness of the students.

Discussion

Adolescent are present a large, captive population of emerging adults who are expected to fulfil important roles in society as professionals.[12-13] The transition into adolescent period is significant as during this period emerging adults experience greater freedom to make choices regarding their health and lifestyle behaviours.[14-16] Furthermore, many students find themselves in a new environment and experience changes to support networks and social norms.[17-19]

In this study, among 90 college students, the age ranged from 16 to 17 years, where a significant portion (83%) was male (Table-I). Thus, such male predominance has also been reported in Journal of further and higher education in UK [20] and female predominance in preventive medicine journal in UK.[21]

Consequently, transition in living environment is likely to alter their drinking and eating behaviours.[22,23] As decision makers and role models, the attitudes and behaviours adopted during their college education have the potential to have further reaching impact on wider society and therefore the health and lifestyle behaviours of these students are of public health interest.[24]

College and university students are widely reported to engage in unhealthy lifestyle behaviours including unhealthy eating behaviours such as drinking, consumption of quick snacks [20], other convenient foods, and fast foods which were high consumed [14], constantly,

insufficient consumption of fruit and vegetables were reported as well. Thus, students indulging in these wrong or faulty food behaviours may have been at increased risk of weight gain-that have been reported to develop NCDs and other communicable diseases, in future.[19]

In this study, most students (61%) were seen to be preferred artificial beverage for drink while only 21% preferred natural drinks along with minor (7%) preferred to alcoholic drink (Table-III).

Findings of this study did not reveal any relation of beverage intake and systemic illnesses (Table-V). However, some of the students had reportedly been suffering from headache, depression and other neurological disorder related morbidities (Table-III).

The top most common (30%) morbidity was the respiratory illness and, among them, >17% were suffering from common cold like (the upper respiratory tract illness (Table-III). In Bangladesh, 67% children suffered from respiratory problems and among them 48% babies suffered from 48% suffered from common cold.[25]

Nearly, one fourth (33%) of these students were suffering from neurological illnesses and among them about 1/10th (14%) used to suffer from headache while another 8% of had been suffering from a degree of depression and/or anxiety (Table-III).

Published figures suggested more than a third of students consume snack food '' at least several times a week'' or 3-4 times a week or more.[14, 15, 16] The reported prevalence of fast food consumption, three or more times per week, [17] ''at least several times per week,'' and 3-4 times a week or more, is varied, ranging from 20.2% in polish university students to 46% in USA university students.[26] Of interest, using the criteria of two or more takeaway meals as a main meal per week. There was reported only 12.5% of Australian university students to meet the criteria.[27] Where as in my study I had collected only nature of beverage intake, not quantitative or other diet, which was important to compare with other studies.

In this study, physical illness and beverage drinking had not defined as qualitative or quantitatively on adolescent students. Female gender was poor in number. It was done at a single centre and prevalence study.

Conclusion

Students suffered mostly from respiratory and nervous system illnesses. Recurrent common cold and headache are the most common illnesses. Interestingly some students like to drink alcohol contain beverage.

Recommendation

It is important to further study on headache of students to determine any relation with recurrent common cold or mental stress.

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