



Food trends and lifestyle of college students in Zimbabwe

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Abstract

Zimbabwe students in tertiary institutions face many challenges with college life especially food provisions among others. This study is a follow up on the findings to a previous research on dietary patterns of college students and implications to their health, which sought to establish food trends and life style of college students. This study was a case of a Primary Teacher Training College in Matabeleland South Province in Zimbabwe. A sample of 102 participants comprising 100 students and 2 cooks was purposively selected from a population of 206 students and kitchen staff. A mixed-methods research, using quantitative and qualitative approaches was employed where questionnaires, interviews and participant observations were used to collect data. Findings are presented from both questionnaire and interview data in combination, with interview data playing the role of supplementing quantitative findings and probing detailed information. Quantitative data were analysed using the IBM SPSS Version 23.0 while qualitative data used thematic analysis. The main study findings showed that students' food trends comprised insufficient nutrient intake; irregular food frequency and unplanned haphazard eating patterns. The study concluded that students followed food trends and lifestyles that placed them at high risk for poor academic performance. The study recommends that all institutions that offer food to students should seek the services of nutritionists or dieticians if they are to provide well balanced diets to college students.

Keywords: College students, food trends, lifestyle, dietary patterns, nutrition, nutrients.

Introduction

College life is considered a very busy period for students which requires enough energy to keep the students on their toes. In order to make the body work as efficiently as possible, it is important that busy and stressed students are properly fueled, and food functions as this essential fuel¹. However, this demanding schedule often leads students to eat whatever they can easily grab on the run, skip meals or over-eat when dealing with stress. These are totally explicable scenarios, but in order to make the body function optimally under the most pressured situations, it is important to fuel-up with the right kinds of foods. Nutritional awareness is especially important for college students given the prevalence of special needs diets such as athletic needs and food allergies. In order to maintain the busy college lifestyle, it is important that students are armed with knowledge on how to use the dining hall as a tool to meet their nutritional needs.

Good nutrition is important for living a healthy life now and in the future². Even if weight is not a concern, overall poor nutrition habits are linked to negative future health conditions such as cardiovascular disease, hypertension, diabetes, osteoporosis, iron deficiency anemia and certain cancers³. Poor nutrition can greatly impact daily well-being in terms of feeling best physically and mentally. Without proper nutrition, the body does not run efficiently and is more prone to feeling lethargic, depressed and physically ill, thereby affecting brain functioning.

College is a unique time of life-changing moments, identifying purpose in life, and learning how to take care of oneself. However, this milestone comes with added stress, an irregular schedule, and a sedentary lifestyle which in turn affects food consumption patterns. Exceptional health helps one to excel during the time as a student and, more importantly, practicing good dietary habits early enough can impact the way one eats for life and improving learning as well as retention capacity⁴.

The majority of students have little variety in intake, eating the same foods day after day⁵. Although diet quality may decrease when students begin their freshman year, there appears to be little improvement in dietary intake throughout the college years⁶. The first-semester, weight gain for students was attributable to basic measures of eating in all-you-can-eat dining halls, snacking patterns and eating high-fat junk food.

Students' food trends and life style are however a global cause for concern. Previous researches established that pass rates for Zimbabwe College students have declined as compared to previous years when the government used to provide accommodation, food and financial aid to the students⁷. The effects of poor nutrition go far beyond the risk of mental illness⁸. It is important to attend to students' food consumption patterns and trends not simply because it can be life threatening but because wellbeing predicts academic performance and attrition rates⁹. The technologies that allow scientists to monitor energy metabolism in the brain have provided detailed

information about brain activities in various cognitive processes and established that humans with insufficient glucose supply or nutrient deficits had compromised cognitive potential¹⁰. This, prompted the researcher to conduct this study on how college students are experiencing and managing their dietary needs, taking into account Maslow's hierarchy of needs which places food as a basic physiological need that must be satisfied before progress to the next level can occur¹¹.

The need to carry out this research was against the notion that, many research studies carried so far show that there is a global transition in food consumption patterns and not much has been done in relation to college students in Africa. Additional substantive data was needed to prove that overall intellectual health is closely linked to a person's diet, rather than just another correlation fallacy. Most literature also suggests the apparent scarcity of research-based knowledge produced by nutritional specialists on how students experience, perceive and manage their diets¹². This dearth of in-depth information occurs against the backdrop of research evidence to the effect that students' nutrition has an essential influence on their academic engagement.

This study therefore intended to fill this knowledge gap on the broad educational field of the study of Nutritional Education. This study will be useful in providing insights for educational administrators and policy makers to draw up strategies for managing students' dietary patterns from an informed position, based on students' own experiences and perceptions.

Research question: What are the food trends and life styles of college students in Zimbabwe?

Methodology

This section highlights the research design and methodology that was used in this case study.

Research design: This case study used the mixed methods research approach, that is, both quantitative and qualitative approaches in order to triangulate data. Mixed methods research offered the best of both worlds, helping answer questions that could not be answered by qualitative or quantitative approaches alone.

Population: The population of this study was 206 college students at a Polytechnic College in Matabeleland South in Zimbabwe, from the Department of Teacher Education and the kitchen staff. The population was identified so that the researcher could gather as much information as needed concerning dietary patterns for college students from different categories that deal with students' diet.

Sample and sampling strategies: Sampling for this study was done in two phases. The first phase used purposive sampling to select 100 students. The sample was used to collect quantitative data. Purposive sampling aims at capturing and describing the

principal outcomes that cut across a great deal of participant variation¹³. The second phase used purposive sampling procedure to select a sample of 14 students and 2 kitchen staff members for qualitative data.

Instruments: The study used face to face interviews, questionnaire, 24-hour dietary recall, food frequency questionnaire and observations to collect data.

Data collection: In this study the researcher collected data in two phases, phase 1 and phase 2 collecting quantitative and qualitative data respectively.

Data analysis: Quantitative data analysis for this study was done using the IBM Statistical Package for Social Sciences (SPSS) version 23.0 while qualitative data employed thematic analysis.

Ethical considerations: Ethical clearance was sought from the University of Venda and from the Ministry of Higher and Tertiary Education, Science and Technology Development in Zimbabwe. The clearance was approved by both institutions. Two key ethical issues considered were consent and confidentiality.

Results and discussion

The researcher's interest to explore the food consumption patterns of students is addressed by the triangulated data from both quantitative and qualitative data. In addressing this findings are presented from both questionnaire and interview data in combination, with interview data playing the role of supplementing quantitative findings. Food consumption patterns have been investigated through gathering information through quantitative and qualitative data. Data from interviews describes and explains the food consumption patterns adopted by both residential and non-residential students, from the point of the students' perceptions and those of the cooks. Food consumption patterns have been investigated through gathering information on the following sub-themes.

Sub-themes: Nutrient intake, food frequency and eating patterns.

Nutrient Intake: To establish students' nutrient intake the students were asked to tick the foods from food groups they consumed in their daily diet. The results are indicated in Table-1.

The results on Table-1 indicate that all the participants, (100%) were taking carbohydrates and fats and oils in their meals, on daily basis, followed by fizzy drinks which were taken by 88%, while 63% included proteins, 31% took dairy and dairy products and lastly fruits and vegetables were consumed by only 12%. Results suggest that participants had no variety in their nutrients as they were consuming same type of foods limiting variety in

their food intake. The results indicate that students lacked some nutrients such as vitamins as their diets had limited variety of fruits and vegetables and took too much of one nutrient which is carbohydrate. Taking too much of one nutrient leads to malnutrition and in this case taking too much of carbohydrates leads to obesity. A healthy diet is one which includes a variety of foods that contain the quality and proportions of nutrients needed to maintain good health and to sustain life¹⁴. The notion of food variety is essential because good nutrition contributes to good health which indirectly results in producing good academic performance.

Table-1: Students’ frequency of daily nutrient intake (n=100).

Food groups	Response	Frequency	Percentage
Cereals and cereal products	Yes	100	100%
	No	0	0%
	Total	100	100%
Meat and substitutes (legumes)	Yes	63	63%
	No	37	37%
	Total	100	100%
Fruits and vegetables	Yes	12	12%
	No	88	88%
	Total	100	100%
Dairy and dairy products	Yes	31	31%
	No	69	69%
	Total	100	100%
Fizzy drinks	Yes	88	88%
	No	12	12%
	Total	100	100%
Fats and oils	Yes	100	100%
	No	0	0%
	Total	100	100%

In order to establish the particular types of foods that students consumed, a food frequency questionnaire was administered and yielded results shown in Table-2.

The next section presents results showing students’ eating patterns.

Eating Patterns: Eating patterns involve the types of foods eaten and the number of times one eats in a day. In the next section students were asked whether they accessed their favourite meals regularly and the following responses were recorded in (Table-2).

Access to favourite meals: When one gets access to their favourite meals they enjoy eating the food and 2 shows whether students got their favourite meals or not.

Table-2: Access to favourite meals (n=100).

Access to favorite meal	Frequency	Percentage
Yes	13	13%
No	87	87%
Total	100	100%

On the whole 87% of the students did not have access to their favourite meals more often while only 13% did. Access to favourite meals increases food intake in the short term¹⁵. This may be relevant because it will make it easier for students to maintain energy balance in the long term. However, favourite meals may be unhealthy and because students like the foods, they may over eat and develop overweight but if the meals are healthy they may help prevent the development of overweight. Previous researches established that eating food that one enjoys can cheer up and make one feel content and relaxed¹⁶.

Eating is one of the pleasures of life and if possible students should consume foods they enjoy and avoid those they dislike. It has been shown that eating favourite foods can stimulate the release of β -endorphins, which are known to enhance mood¹⁷. However the attractiveness of a food is not only related to its sensory properties, it also depends on how hungry one is previous experience of eating the food and the social circumstances in which it is consumed. When students do not get favourite meals they won’t enjoy eating and that compromises on the recommended nutrient intake. The next section sought to establish what students’ favourite meals consist of.

Favourite meals: It was necessary to explore what students’ favourite meals consisted of, in order to establish the nutritive value of such kind of food. Constitutions of students’ favourite meals are reflected in the percentages provided in each column in Table-3.

Table-3: Favourite meals (n=100).

Meals	Frequency	Percentage
Indigenous foods	20	20%
Fast foods	63	63%
Snacks	17	17%
Exotic foods	0	0%
Total	100	100%

The majority of the students comprising 63% of the participants indicated fast foods as their favourite meals, and these tend to have too much fat and empty calories which, in turn, may be the major causes of a large number of students who were obese and overweight, as indicated in Table-4. From the participants' responses, 25% indicated preference for indigenous foods whilst 17% indicated preference for snacks. Due to western influence on the Zimbabwean population, college students have developed a preference of unhealthy foods such as fast foods¹⁸. However, this kind of food has no value to the students' nutrition. In local food outlets, the same kind of food is prepared daily. Therefore, students tend to consume the same type of food repeatedly, thereby denying them of variety in the process. The students' food consumption patterns were mainly fatty foods with empty calories hence, students lacked variety. Thus, students were plying the mobile kitchens for their meals and practicing wrong dietary patterns in the process.

When cooks were interviewed about students' favourite meals, they indicated rice and chicken; however, students may have seemingly appeared to prefer rice and chicken, yet that could have just been better than all other meals provided by the college. From what the researcher observed, students did not really enjoy eating the rice and chicken as they threw a lot of it in the bin.

Number of meals taken per day during the week: Nutritionists and dieticians recommend at least 3 meals per day in order to meet daily nutrient requirements. In order to establish whether the students under study were meeting daily nutrient intake the number of meals they took per day were explored as shown in Table-4.

Table-4: Number of meals taken on a day during working days (Monday to Friday) (n=100).

Number of meals per day	Frequency	Percentage
3 meals every day	31	21%
2 meals	48	48%
1 meal	21	31%
Total	100	100%

Table-4 indicates that 31% took 1 meal per day while 48% respondents indicated that they took two meals per day and 21% took three meals per day during week days. Some students skip meals in order to achieve and maintain their desired body size¹⁹. These results suggest that students were taking insufficient meals to meet the Recommended Daily Allowances during the week which could compromise on their concentration span.

Recent studies claim that increasing meal frequency does not increase metabolic rate when dietary intake is not matched. In

other words, total calories consumed count more than frequency. Consumption of a certain number of meals that allows one to meet nutritional needs consistently each day is more important²⁰. Adequate nutrient intake cannot be met with less than three meals per day. Resources allowing, colleges should be able to supply students with regular meals.

Number of meals taken on a day during weekends (Saturday and Sunday): During weekends 21% of the students took one meal per day, 56% took two meals per day and 20% took three meals per day while only 3% took 4 meals per day. The results show that a larger number of respondents took two meals per day during the week days and during weekends as well. These findings suggest that most students did not get the recommended daily meals, however, a person should get at least 3 meals a day. No one meal can supply the required daily nutrient intake²¹.

Table 5: Number of meals taken during weekends (n=100).

Number of meals per day	Frequency	Percentage
1 meal	21	21%
2 meals	56	56%
3 meals	20	20%
4 meals	3	3%
Total	100	100%

Conclusion

The study concluded that students had fixed and prescribed diet among resident students; unplanned and unbalanced meals provided by college due to inadequate budget for meals; limited food variety; unplanned and unfixed supplementary food regardless of nutritive value by resident students; unplanned haphazard food consumption patterns for non-resident students; unhealthy food consumption patterns due to availability of junk food; inadequate daily nutrient intake and insufficient number of meals taken per day during the week and weekends.

Fixed and prescribed diet among resident students: The college prescribes the meals for the students and they had no say on whatever was provided for them, and by implication, students thus adopted a fixed uptake of food staffs institutionally prescribed for and imposed on them regardless of whether they liked the food or not.

Unplanned and unbalanced meals provided by college due to inadequate budget for meals: The cooks did not systematically plan meals for the students in terms of nutritive value, with the resultant fixed unplanned meals as the cooks just followed the menu whose designer they were not even sure of.

The study concluded that meal planning was inconsistent and guided by available funds rather than the nutritive value of the meals for the students. The cooks confirmed insufficient budget for meals owing to the amount of funds paid by the students towards their meals. Resident students had to pay an amount of US\$150 each per term of three months towards their meals. This meant that their budget was for 90 days; at three meals a day this was US\$1.66 per day and US\$0.55 per meal - a figure far from supplying basic meal for an adult. However, the kitchen staff had to work with what was available. Although the cooks showed nutrition knowledge, they could not plan meals on such a meager amount of money, and this suggests poor nutritional practices. Planning meals is an important exercise that allows the inclusion of all nutrients needed per day.

Students had limited food variety: The meals that students got were very limited in variety as was indicated on the menu sheet. The students were having four plain slices of bread and black tea and rarely did the bread have margarine or jam, making it unpalatable. They also had more of *sadz*a and beef or cooked green leafy vegetables and once in a while rice and chicken or beans for their lunch and supper. The meals supplied more carbohydrates and proteins and no vitamins and other nutrients. Students were never given any fruits for the whole term. It can be safely said that the college malnourished the students. The students did not enjoy the meals because there was also no variety in the preparation of the meals. Lack of food variety is a recipe for nutrition deficiency diseases.

Unplanned and unfixed supplementary food regardless of nutritive value by resident students: The study concludes that resident students had unplanned and unfixed supplementary food that they adopted in order to survive in college. Several students stated that what they were given by the college could not take them through the day because the meal time intervals were too spaced that they would need supplementary food. They would buy available and convenient foods such as bread and fizzy drinks. Most of the participants confessed that they did not bother with the nutritive value of the food they bought to supplement their college provided meals but consumed whichever foodstuff came their way just to keep going. The resident students adopted unplanned food consumption patterns befitting of a balanced diet. The students also contributed to their food consumption patterns that neglected other important nutrients due to their penchant for beef and chicken and not vegetables for their relish, as reported by the cooks.

Unplanned haphazard food consumption patterns for non-resident students: Non-resident students, like their counterparts highlighted the fact that owing to general financial constraints, they ate whatever type of food that came their way just to keep them going. For non-resident students the irregular food consumption patterns were experienced with their main meals rather than supplementary meals as was the case with residential students. However, both categories did not have balanced diets. Non-resident students experienced unplanned haphazard food

consumption patterns based on the amount of funds available which meant their meals were mainly dependent on the funds they had at any given time. They also prepared their meals using available foodstuffs. Some of the non-resident students would go without food for days, as was indicated in the 24-hour dietary recall record.

Students consumed unhealthy food due to availability of junk food: Some of the students were relying on take away foods from the mobile kitchens that had mushroomed in the city. Students bought whatever was prepared on that particular day. Observation of the daily routine of students has shown that some students tended to buy fast foods from different food outlets around the college. It was clear that most students have diverted from home cooked meals to college cafeterias. The researcher observed that the college also sold fast foods to the non-resident student which was far below standard, such as rice and vegetables. Take away foods tend to have too much unhealthy fat which poses for risk of obesity. The research also revealed that students relied on the availability of convenience foods which they could prepare easily and quickly, the cost of the food as well as their favourite foods.

Inadequate daily nutrient intake: All students under study included carbohydrates and fats and oils in their daily diet followed by fizzy drinks and proteins. Few students indicated eating dairy foods, fruits and vegetables. Even though the numbers of people who claimed to consume certain nutrients were high, evidence from data indicates that they were taking inadequate nutrients, less than the USDA recommendations.

Lack of access to favourite meals: The majority of the students did not access their favourite meals and when students like any other people do not get their favourite meals they do not enjoy eating and that compromises on the recommended nutrient intake.

Insufficient number of meals taken per day during the week and weekends: Students were taking insufficient meals during the week which could compromise on their concentration span. Nutritionists recommend that people should take four to five meals per day in order to meet required nutrients.

Recommendations: The study recommends that all institutions that offer food to students should seek the services of nutritionists or dieticians if they are to provide well balanced diets to the students. Nutritionists and dieticians should continuously assess nutritional awareness levels in the community and colleges and provide nutrition alertness services and nutritional counseling to students.

References

1. Barker H.M. (2002). Nutrition and dietetics for health care: Edinburgh: Churchill Livingstone.

2. Baric I.C. and Keser I. (2007). Diet quality in Croatian university students: Energy, macro-nutrient and micro-nutrient intakes according to gender. *International Journal of Food Science and Nutrition*, 58(5), 398-410.
3. Donkin A. and Dowler E. (2002). Equal access to healthy food at a local level. Ashgate: Aldershot.
4. LaFontaine J., Neisen M. and Parsons R. (2012). Wellness Factors in First Year College Students. *American Journal of Health Studies*, 21(4), 214-218.
5. Driskell J.A., Kim Y.N. and Goebel K.J. (2005). Few differences found in the typical eating and physical activity habits of lower-level and upper-level university students. *Journal of American Diet Association*, 105, 798-801.
6. Bang E. (2009). The effects of gender, academic concerns and social support on stress for international students. Columbia: University of Missouri.
7. Mpfu M. (2019). Relationship of Dietary Intake of food Group and Academic Performance of College Students in Zimbabwe. *International Journal of Food and Nutrition*, 1 (2), 13-17.
8. Manwa L. (2013). University Students' Dietary Patterns: A Case of a University in Zimbabwe. *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS)*, 4(1), 191-197. © Scholarlink Research Institute Journals, 2013 (ISSN: 2141-6990).
9. Tavelli T., Suzanne S., Beerman B., Kathy K. and Shultz N. (1998). Sources of Error and Nutritional Adequacy of the Food Guide Pyramid. *Journal of American College Health*, 47(2), 77-87.
10. Helland I.B., Smith L., Saarem K., Saugstad O.D. and Drevon C.A. (2003). Maternal supplementation with very-long-chain n-3 fatty acids during pregnancy and lactation augments children's IQ at 4 years of age. *Pediatrics Journal*, 111(1), 39-44.
11. Bauris A. (2001). Housing Decisions. Madison: University of Winsconsin publisher.
12. Worthington-Roberts B.S. and Williams S.R. (2000). Nutrition Throughout the Life Cycle. 4th Edition. USA: McGraw-Hill.
13. Lincoln Y.S. and Guba E.G. (2006). Naturalistic Inquiry. Beverly Hills, CA: Sage Publications, Inc.
14. Satalic Z., Baric I.C. and Keser I. (2007). Diet quality in Croatian university students: Energy, macro-nutrient and micro-nutrient intakes according to gender. *International Journal of Food Science and Nutrition*, 58(5), 398-410.
15. Levitsky D.A., Garay J., Nausbaum M., Neighbors L. and Dellavalle D.M. (2006). Monitoring weight daily blocks the freshman weight gain: a model for combating the epidemic of obesity. *International Journal of Obesity*, 30(6), 1003-1010.
16. Drewnowski A., Krahn D.D., Demitrack M.A., Nairn K. and Gosnell B.A. (1992). Taste responses and preferences for sweet high-fat foods: evidence for opioid involvement. *Physiology & behavior*, 51(2), 371-379.
17. Shi Z., Lien N., Kumar B.N. and Holmboe-Ottesen G. (2005). Socio-demographic differences in food habits patterns of school children and adolescents in and preferences of school adolescents in Jiangsu Province, China. *European Journal of Clinical Nutrition*, 59, 1439-1448.
18. Manwa L. (2010). The Causes and Effects of Stress on Working Women in Masvingo, Zimbabwe. *Journal of History and Development*, 1(2), 31-50.
19. Akbaraly T.N., Singh-Manoux A., Marmot M.G. and Brunner E.J. (2009). Education attenuates the association between dietary patterns and cognition. *Dementia and geriatric cognitive disorders*, 27(2), 147-154.
20. Cameron J.D., Cyr M.J. and Doucet E. (2010). Increased meal frequency does not promote greater weight loss in subjects who were prescribed an 8-week equi-energetic energy-restricted diet. *British Journal of Nutrition*, 103(8), 1098-1101.
21. Mpfu M., Kutame A.P., Mutshaeni H.N., Maliwichi L.L. and Mbulaheni V. (2018). Zimbabwe College Students' Food Consumption Patterns: Implications on Health. *International Journal of Home Science*, 4(3), 265-270.