



## EFFECTS OF ACADEMIC WORKLOAD ON EATING PATTERNS OF STUDENTS AND THEIR STRESS LEVELS

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### Abstract:

The Universities today are a world of their own. This study will look at how students with higher workload get affected, which results in the rise of mental stress and how their eating pattern varies. Students at the different universities will be asked to participate and complete a self-administered non-standard questionnaire that measured their stress levels, workload, and eating habits. The findings will reveal the percentage of students who admitted to having an unhealthy relationship with meals and consuming unhealthy foods because of their academic workload.

**Key Words:** Stress, Academic performance, Workload, eating patterns, college students.

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**Research gap:**

There have been several studies relating students' eating patterns and stress but little of them have been in the Indian context. The research will not content itself with the eating patterns of students only, it will measure the stress level and then correlate it with the increasing workload and its impact on pupils' dietary patterns. The following research will also include people with poor incomes or limited access to inexpensive, healthy food options, the cost of food can be a substantial obstacle to eating well. Some pupils can reside in places with a lack of access to healthy food options or in food deserts. This may result in a dependence on less healthy, less expensive food selections, which could lead to poor nutrition and detrimental health effects. Food insecurity, which is defined as a lack of continuous access to enough food for an active, healthy life, can also be caused by financial constraints.

**Hypothesis**

**Hypothesis 1:** There will be a significant negative relationship between high academic workload and stress.

**Hypothesis 2:** There will be a significant negative relationship between the stress levels caused by the university workload and eating infrequencies.

**Objective:**

- To identify how students are getting affected mentally because of the academic workload.
- To determine the extent to which the students are willing to give in to the pressure of academics and affect their dietary patterns.
- To understand how students cope with their increasing work pressure and succumb to it.
- To provide a solution for the complications the students are facing.

**Research Methodology**

For the research data collection an online questionnaire was designed. The questionnaire was composed of general statements about the eating patterns, stress level, academic aspect etc of the students. The questionnaire is designed to contain 17 items, 16 of which are statements with the options available being the general five-point Likert scale type options. The options range from strongly agree to strongly disagree for each statement. These statements are aimed at collecting data on and forming a connection between the academic workload, stress and eating patterns of college students particularly from Lovely Professional University. The last of the statements is an optional, open ended – subjective question,

this is for inquiring about the subjective experiences of students regarding the topic area.

**General effects**

Prior research shows that stress changes the overall eating behaviors. Furthermore, earlier works revealed a switch of the nutrient's composition in the course of stressful times with an increased consumption of high caloric food and a decreased consumption of high nutrient food with low calories and more vitamins. Stress was initially described as the force that causes pressure on a physical body. However, latest research has proposed that stress must be related to one's positive self-views and beliefs to influence eating. According to the model of individual differences, stress affects eating behaviours in two ways either a person will overeat or will skip meals entirely. These entirely opposite may be described by the graveness of the stress is faced by the person.

The idea that the stress influences the eating behaviors in terms of total caloric intake is supported by earlier studies. Additionally, prior research demonstrated that consumption of high caloric food and high-sugary food such as carbonated drinks, chocolates, processed meat etc. increases and the consumption of nutritional food such as fruits, fish, chicken and dark green vegetables etc. are decreased during stressful times. Initially, it was thought that a cohesive series of bodily events was brought on by stress. Recent research, however, contends that for stress to cause eating, there must be an ego danger. According to the individual-difference paradigm, stress can affect eating in two different ways, either by making us eat or not. The level of stress experienced may help to explain these conflicting reactions. The housing situation can also have a big impact on eating habits.

Richardson et al (2015) found out that there was direct and positive relationship between perceived stress and unhealthy eating which led to obesity. According to the one study of Schultchen et al (2019) there is no visible relationship between healthy eating and stress/affect. In one of his studies, Gibson (2006) showed that sweet and high-fat food help uplifting the stress through improved functioning of serotonergic system. When any of stress such as argument with a loved one, which is acute in nature is experienced, there is an automatic physiological reaction, the "flight or fight" response, which leads to decreased appetite.

Richardson et al. (2015) found that there is a direct and positive relationship between perceived stress and poor eating patterns that resulted in extreme obesity. According to a study by Schultchen et al. (2019), there is no significant relationship amid

stress/affect and healthy eating. Gibson (2006) highlighted that consumption of high sugar contained food and high-fat cuisine improves the ability of the serotonergic system to reduce stress. An automatic physiologic response, the "flight or fight" reaction, that suppresses appetite, occurs when a stress is felt for a short duration of time it is known as acute stress, for example a danger to one's personal or physical safety. Acute stress causes food intake to decrease, it is related with physiological changes that might reduce food intake for the short period of time, whereas chronic stress has a greater effect on eating behavior. Chronic stress results in increased cortisol that may persuade people to consume hedonic food and which high energy-contain food, and this leads to undesired weight gain and obesity.

In contrast to chronic stress, which has a higher impact on eating behaviour, acute stress reduces food intake and is linked to physiological changes that may be predicted to do so in the short term. Chronic stress raises cortisol levels, which may encourage people to eat hedonistic, energising foods and perhaps cause obesity and unwelcome weight gain.

### Gender

According to studies, stress does not have the same effect on the food choices of men that it does of women. Women who are under-stress are more likely to have uncontrolled emotional eating behaviours (Richardson et al, 2015). Wansink et al. (2003) discovered through a survey that females usually prefer snacks such as candy, chocolates and ice cream etc. but on the other hand males tend to choose heavy meals such as pizza, pasta and steak etc. In a study by Zellner et al (2007), ninety-one percent said that they tried to make healthy eating choices, but eventually they could not stick to it, only fifty one percent made healthy eating choices. A visible difference was seen between males and females in reporting appetite changes.

According to the literature, men's dietary preferences are not affected by stress in the same way that they are for women. According to Richardson et al. (2015), women under the stress are more likely to engage themselves in uncontrolled emotional eating behaviours. In a survey, Wansink et al. (2003) discovered that whereas men are more likely to seek comfort from foods associated with meals (pizza, pasta, steak and casseroles), women more likely to seek comfort from foods associated with snacks (candy, chocolate and ice cream). Ninety-one percent of participants in a study by Zellner et al. (2007) said they generally tried to make good food choices, but only fifty one percent did so when they were under

stress. It was discovered that men and women reported appetite changes very differently. Appetite of men's are less likely to get affected when stressed out, whereas the appetite of women's is heavily affected.

### College students

College student who stayed with their parents showed a much healthier dietary habits compared to those who decided to live away from their parents. The change from school life to university, the failure to adapt to the new environment and the stress related to it can lead them to the poor eating habits such as excessive intake of alcohol and decreased or increased eating pattern. Data produced by American College Health Association's National College Health Assessment in 2009 showed that around thirty seven percent of the college going students were overweight or obese. Student going to university gained weight frequently specially those who just started going to the university. The shift from school to college lead to higher level of perceived stress, which could result in poor food choices and unhealthy eating patterns and promote overweight and obesity. In comparison to the students who lived on their own, those who lived with their parents showed a much healthy eating pattern. Lack of college going students to acclimatize to the current environment and accompanying stress from the shift to university from high school can contribute in unhealthy food intake habits such as immoderate amount alcohol use and over and under eating because of the stress. Data published in 2009 by American College Health Association's National College Health Assessment showed that around thirty-seven percentage of college going students are obese and over-weight. (American College Health Association, 2008).

Choi (2020) indicated that college going student showed two complete opposite behaviours when stress out which includes more frequent consumption of food (excessive eating) and less frequent consumption of food (under-eating). There is a drastic difference in lifestyle and eating habits of the college students as compared to the normal population. College going students usually prefer that is more accessible to them more than the taste what more important to them is convenient for them. Thus, fast-food is very common and popular among college students. Moreover, most of the ignore mess recommendations, they constantly skip meals or they only have two times a meals. This inconsistency in food choices and consumption have been seen in both the genders males as well as females.

According to Choi (2020), college students engaged in two opposite behaviours when under stress, including eating particular foods more frequently (overeating) and eating less frequently (undereating), such as skipping meals. Compared to the non-college going population, college students have a very different lifestyle and their eating pattern is also very different, they constantly depend upon snacks they can get quickly and easily. The main motivating factor behind their meal choices is convenience rather than taste. The main reason behind their choices of meal is transition from living with parents to living alone and the amount of workload they have from the side of the university so, in order to keep up with the assignment and other academic tasks they prefer to spend less time reflecting on their food choices. Furthermore, the majority of college going students constantly skip their meals, choose to eat unhealthy snacks, and consume way too much alcohol. Preferences of the food choices have been found to vary between sexes.

In various studies it has been discovered that, female students try to avoid fatty food, they would rather consume fruits, and spent less on purchasing high-energy food but on the other hand male students were seen spending more on alcohol content drinks. contrarily, another study highlighted the similarity between male and female students in the consumption of fruits and vegetables, even so it was found that female students consumed more fat content food than male students. Maybe these all distinction depends on the level of perceived stress perceived by an individual. For example, stress can decrease one's appetite and it can also increase one's appetite (Zellner et al, 2006)

According to various researches, female students are more likely to eat less fat, excessive fruits, and eat less high-energy food items, but on the other side male students tend to drink more alcohol. Conversely, another study highlighted that both male and female students ate similar amount of food, yet female students more likely to ate fatty meals as compared to male students. By this we can say that stress does impact the eating behaviours, there is possibility that differences relay up on the individual's perception of stress they receive. For example, stress has been seen as a reason for increased snacking and decreased healthy eating (Zellner et al., 2006).

“The majority of the respondents did not exercise regularly or take dietary supplements. One-third of the respondents skipped breakfast almost every day, but few skipped lunch and dinner (Choi, 2020).” Various eating patterns were notably dissimilar between students with high and low level

of perceived stress. Students who have excessive level of perceived stress levels showed excessive unhealthy diet for instance consuming food that has already been pre-cooked and it just has to be pre-heated at home (Choi, 2020).

#### **End points:**

State of mind and feelings gives an inner encouragement and motivation or state that evoke a useful, curative food selection. Having good meal will certainly change the frame of mind and emotional state, naturally alleviate excessive fear and excitement, and increasing peace, positive thoughts and emotions. There is direct fondness for the food that is sugary and excessive in fat content amid those who are stressed out highly in comparison to those who are low in stress levels. The inner motivation or mood that promote a beneficial, good healthy eating conclusion is given by the state of mind and feelings. Consistently eating a good-healthy-meals influences one's emotions and emotional response, frequently results in reducing health problem mental as well as physical, also reduces anger and irritability. Food choices affects in many ways, choosing right food for us will keep us healthy internally as well as externally, food choices not only affect the personal life but it also affects the social life so it is very important to healthy and right food to function well in the society.

#### **Workload and stress:**

The term workload can be defined as the amount of work that has been performed or having the ability to perform in a limited period of time. It can be quantified in a number of ways, including the quantity of tasks, the time needed to perform each work, their level of difficulty or complexity, and the resources needed to execute each task. The degree of responsibility, the quantity of tasks being performed at once, the level of supervision, and the degree of decision-making autonomy can all have an impact on workload. To guarantee that work is finished on time and to prevent burnout or stress, it is crucial to manage workload appropriately. Prioritizing work, assigning duties, and ensuring that the necessary resources are on hand can all contribute to this. (Koehler, n.d.) According to WHO, Stress can be defined as a condition of anxiety or mental tension brought on by a challenging circumstance. Stress can act as a normal human reaction that motivates us to deal with problems and dangers in our lives. However, the way of us handling stress has a significant impact on how we feel overall. (Stress, 2022) Stress has been known as a day-to-day phenomenon in an individual's life. Having said that it can become

unhealthy when it starts to impact an individual's daily activities negatively. Stress is a complex physiological and psychological response to external pressures or demands that can cause a range of physical, emotional, and behavioral changes in the body. It is known to activate the body's "fight or flight" response, which sets off a series of physiological changes that can have an impact on almost every body system, including the immunological, respiratory, digestive, and cardiovascular systems. These modifications can take the form of elevated heart rate and blood pressure, alter breathing patterns, and alter hormone levels. Anxiety, depression, cardiovascular disease, diabetes, and autoimmune disorders are just a few of the psychological and physical conditions and diseases that can be brought on by long-term or extreme stress. Additionally, it may have an impact on one's physical and mental health, lowering life expectancy and raising the possibility of dying sooner. ("Stress," n.d.)

#### **HOW WORKLOAD CAN AFFECT STRESS:**

Stress levels can be significantly impacted by workload. Employees may experience pressure and worry due to an excessive workload, which will raise their stress levels. This may be particularly true if there are strict deadlines, a shortage of supplies or help, or ambiguous expectations in addition to the workload as well as an excessive workload can cause burnout, physical and mental tiredness, as well as a number of other physical and mental health issues. It may also have an impact on productivity and job happiness, which could result in subpar work and higher turnover rates. A healthy work-life balance can be encouraged, and stress levels can be decreased with a sustainable workload. When employees are given a manageable workload and deadlines they can meet, they may feel more in control of their work and motivated to do their best. Employers can take actions to successfully manage workloads, such as assigning tasks, prioritizing projects, and offering resources and support, to help lower stress levels associated to workload. Employers can also support a good work-life balance by allowing flexible work hours and flexible work arrangements, as well as by encouraging breaks and time off to prevent burnout. (LeBlanc, 2019)

#### **HOW STRESS AFFECTS WORKLOAD:**

Employee focus and motivation may be affected by the physical and mental tiredness that stress can cause. This may lead to lower job satisfaction, higher absenteeism, and higher turnover rates. Stress can have an adverse effect not just on an

individual employee but also on team dynamics and organizational effectiveness. High levels of stress can cause disagreements, breakdowns in teamwork, and a lack of cooperation and support among team members. This may lead to further rises in stress levels as well as a decline in morale and productivity. Apart from affecting an individual employee, stress can also have detrimental effects on an organization's effectiveness and dynamics. It can lead to breakdowns in teamwork, disagreements, and a lack of support and cooperation, leading to a decrease in output and morale. To help minimize the effects of stress on an employee's workload, employers should establish a friendly work environment that encourages a good work-life balance. This can be done through the availability of stress management tools such as counselling and therapy services. (Occupational Health: Stress at the Workplace, n.d.) Reasons like poor mental focus, deprivation of sleep, fatigue as well as psychosomatic disorders (are physical illnesses or conditions that are caused or aggravated by psychological factors such as stress, anxiety, and emotional distress) can also be the common side effects of work-related stress. (The Effects of a Heavy Workload on Employees, 2021) Academic achievement, student well-being, and workload are all interconnected. An excessive amount of work can cause stress and anxiety, which can have a severe effect on a student's health and academic performance. The opposite is also true: academic performance and general welfare can be enhanced by a manageable workload and sound physical and mental wellbeing. A lot of research has been done on the connection between student workload, wellbeing, and academic achievement by Cardiff University scholar Andrew P. Smith. According to his research, there is a complex link between these variables, and the impact of workload on wellbeing and academic achievement might differ based on human traits including motivation, personality, and coping mechanisms. According to Smith's research, a high workload might cause more stress and anxiety, which can have a detrimental effect on students' wellness and academic performance. He also discovered that a moderate workload might be advantageous since it can provide children a sense of purpose and accomplishment and can encourage the development of critical abilities like time management and organization. Smith's research has also shown how crucial it is to promote students' overall welfare and mental health because these factors can have a favourable effect on academic achievement. He has advocated for colleges to offer resources and assistance to students, including

counselling services, programs promoting mental health, and chances for social interaction and physical activity. Smith's research also indicates that encouraging academic performance and overall student welfare requires a balanced approach to student workload and wellbeing. Universities can contribute to the creation of a productive and healthy learning environment that is advantageous to both students and the larger academic community by offering resources and assistance for students. (Smith, 2019)

## EATING HABITS AMONG COLLEGE STUDENTS

College is a time of change and transition, with new experiences, new friends and new opportunities. With this transition, however, a student has to go through some challenges as well, including maintaining healthy eating habits. It is difficult to maintain healthy eating habits while in college because students are often on a tight budget, have a lot of new responsibilities and faced with tempting junk food options and due to that students tend to skip their meals but whenever one skips the meal, their bodies go into phase of survival. Students who neglect to eat a balanced diet unintentionally threaten their own health because this might result in cognitive decline and poor academic performance. In addition, it can be challenging for students who were used to having their meals cooked by their parents or other relatives to prepare meals on their own, while others might be unclear of what to eat or when to eat without proper guidance or direction. In a survey done on college students it was found that the majority of undergraduate students on all 10 campuses who participated in the 2015 UC system poll were between the ages of 18 and 24. 40% of the approximately 9,000 respondents said they experienced food insecurity (Goodkind, 2021). Additionally, students who experienced food insecurity were more reliant on financial help, lived in poverty, regularly consumed unhealthy foods, and had more obstacles to obtaining food. Let's explore the eating habits of college students; including the challenges they face to follow a healthy diet and strategies they can use to avoid unhealthy eating habits and irregular diets.

In addition to the list of the challenges that college students go through, they also face peer pressure and social influences that can affect their eating habits. For instance, many college students are pressured to consume alcohol and eat junk food during social events and college fests which eventually lead to unhealthy eating habits. According to a study done on eating habits of college students it was found that the majority of

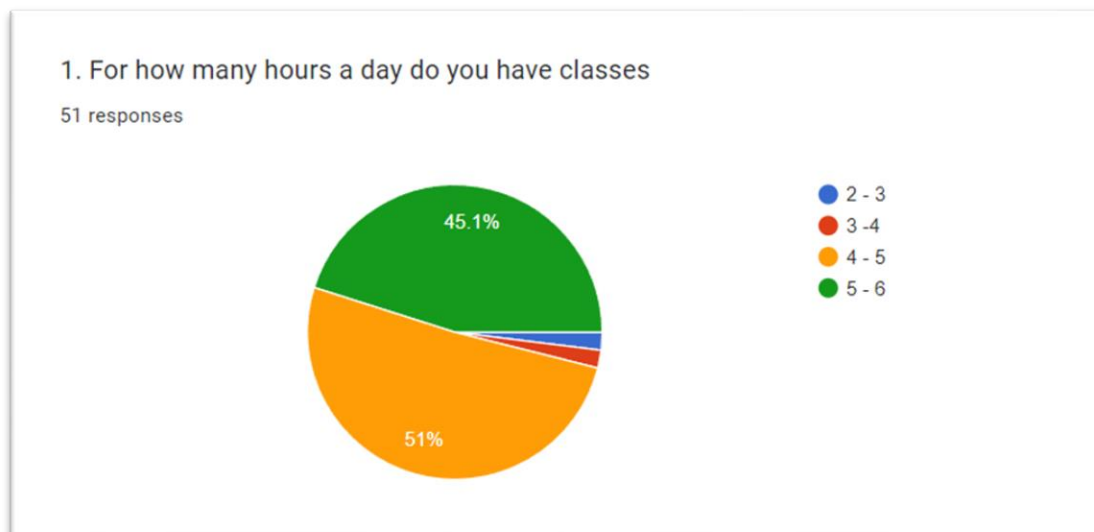
students were discovered to be eating fast food, such as hamburgers, pizza, hot dogs, and other similar items, and their percentage consumption was also found to be relatively high (ranges from 40–45%). They also eat fast food as a meal during lunch, which is not a satisfying and high-quality meal (Student et al., 2019). Some students might also be influenced by their peers' unhealthy eating patterns and irregular diet and tend to follow the same. Some students may struggle with alcohol consumption. Alcohol can be a big part of a college student's social life due to various reasons such as peer pressure, academic stress or academic pressure and many more and students who consume alcohol eventually develop unhealthy lifestyle and eating habits.

To avoid these unhealthy eating habits, students can take some steps to improve these habits. According to the study done by NIM, interventions should be tailored for the targeted population (i.e., young adults) in order to support individuals to behave in accordance with their healthy intentions (Sogari et al., 2018). Students can plan ahead and prepare their meals in advance. By meal prepping students can prepare healthy meals on weekends in large batches that can be consumed throughout the week even if they're busy. Students should try to consume three main meals every day as much as they can. Give a quick breakfast with protein first priority. When you carry snacks like apples, oranges, and almonds with you throughout the day, you're more likely to eat them when you're hungry, even on days when you're too busy to have a full meal. Overall, the eating habits of college students don't promote the physical, mental, or intellectual performance needed to function at a high level. With simple adjustments and a deliberate effort to adopt choices that support a healthy lifestyle, eating habits may be improved. Students can also follow a healthy lifestyle like getting enough sleep, exercising everyday/going to the gym and managing stress and eventually by taking care of them and following a healthy lifestyle, students are more likely to make healthy eating choices. Additionally, the food environment must be maintained within the university offering healthy food items and at an affordable cost. Universities can also help students to promote healthy eating habits by promoting awareness and also by giving breaks in between classes to provide sufficient time for students to have their meal. Taking everything into account, yes, maintaining healthy eating habits in college can be challenging. However, if not corrected early, these habits can become irreparable and can cause a lot of health problems eventually. So, it is important for students to prioritize their health and wellness and set themselves up for

success in the future.

## DISCUSSION OF RESULTS:

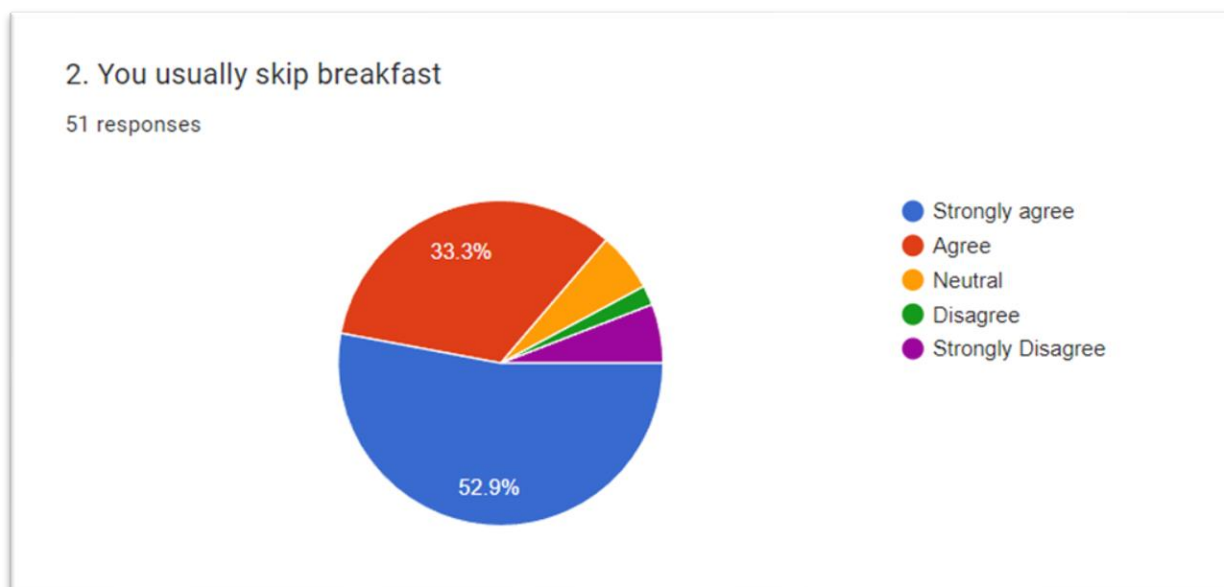
### 1. For how many hours a day do you have classes



For the statement concerning the hours of students have to do classes fifty one percent students responded with having four to five classes each day whereas forty five percent of students agreed to having five to six classes each day. By this we can conclude that in each day students have to spend at

least more than six to seven hours in university only. Having to spend more than six to seven hours in university may result in increase of academic pressure. Which in turn can lead to stress eating or disruption in normal eating habits.

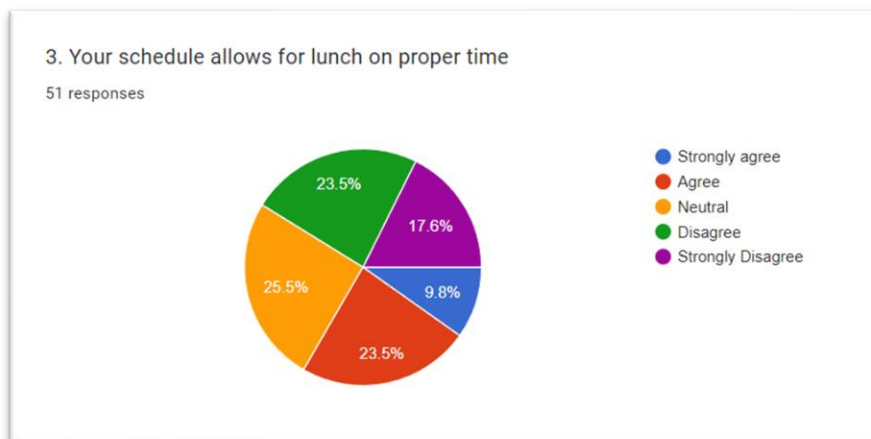
### 2. You usually skip breakfast.



Regarding the statement of skipping breakfast fifty three percent of student body strongly agrees with it similarly around thirty three percent of students also agrees with it. With this it can be reach to conclusion that majorly everybody who is a student has a habit of skipping breakfast because of heavy

workload or for convenience. Skipping breakfast usually results in increased inflammation and breaks down muscles which in turn can be harmful to a human body also skipping breakfast results in low energy among the students which make them unwilling to work or use energy.

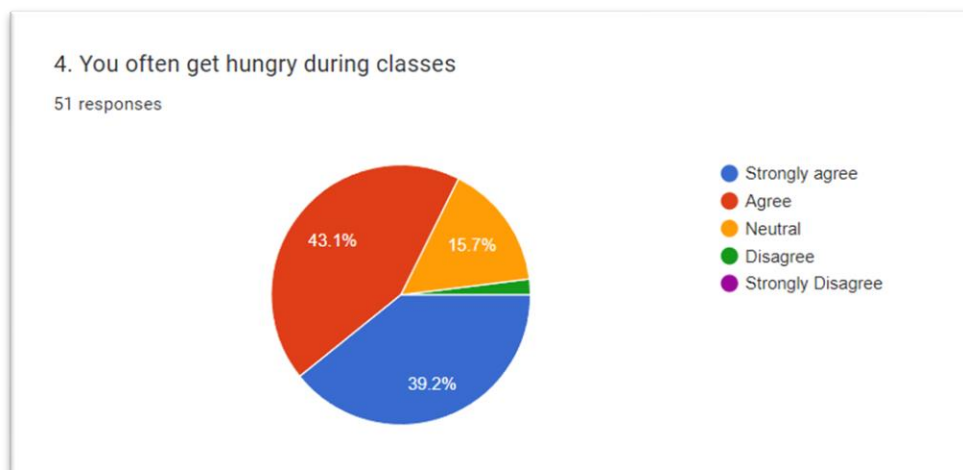
### 3. Your schedule allows for lunch on proper time.



The above statement brought out some mixed percentage amongst students. Twenty-three percent of students voted for disagree whereas similar percent of students agreed to the statement. Twenty five percent of students remained neutral. In comparison to this seventeen percent of students strongly disagreed with the statement. This bring us

to the conclusion that not every student's schedule is compatible with proper timing to consume food. While some of the students have a proper timing to have lunch some people are unable to get that because extra overload or irregular scheduling by university.

### 4. You often get hungry during classes.



Considering the above statement, forty three percent of students agree with it parallelly thirty nine percent of students strongly agree with it. With this in can be interpreted that majority of the students feel hungry during the classes. Relating this statement with above ones it can be concluded that as the student have not had proper food that in turn makes them feel hungry. Students who are malnourished suffer from poor concentration, memory, and learning abilities, which can seriously impede academic progress. Hunger also affects students' physical and mental health, leading to absenteeism and poor attendance, and impeding their ability to move smoothly between classes.

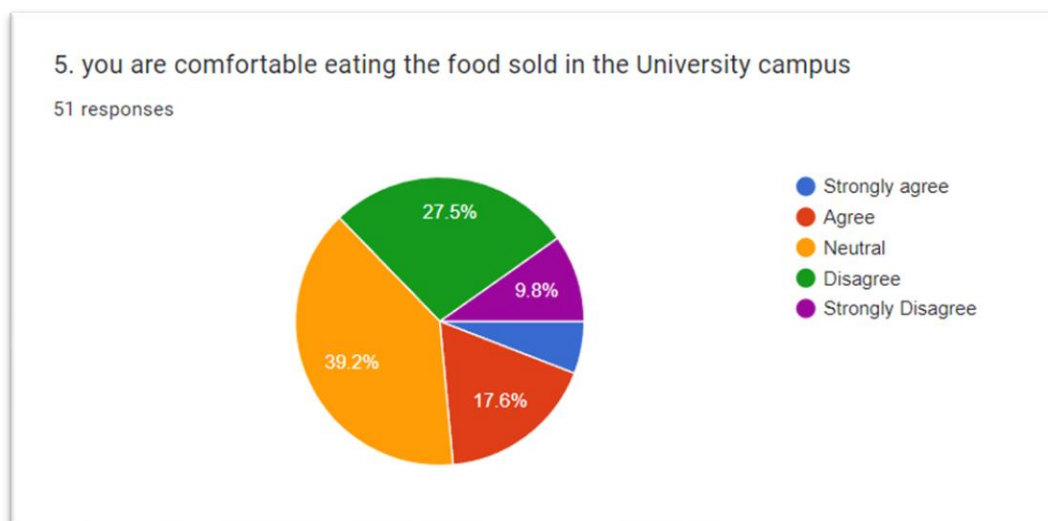
### 5. You are comfortable eating the food sold in the university campus.

When asked about how comfortable you are with the food sold in the university campus, this statement brought out some mixed repones where ten percent of students strongly disagreed, and twenty eight percent of students disagreed to the statement whereas eighteen percent of the students agreed to the statement and thirty-eight of the students responded neutral. This means that students are reluctant to eat food that is sold on campus. Students, especially those staying in dormitories, must eat food that is sold on the university campus. This brings us to the conclusion that there are few students who are comfortable with the food sold is the university campus but



there are students who are uncomfortable with the food sold in the university campus this leads to skipping of food and eating less than the required

amount which results in low energy among students and reduced willingness to work.



#### 6. You worry about the quality and preparation of the food that you eat in the university.

For the statement concerning the quality and preparation of the food in the university, twenty eight percent of the students strongly agreed, and thirty percent of the students agreed to the statement but thirty one percent of the students

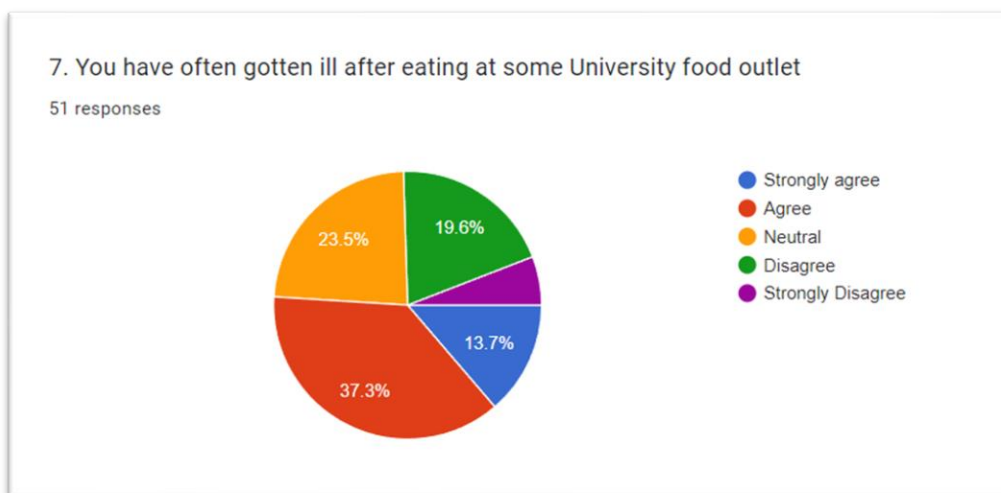
remained neutral. On the basis of results obtained we can conclude that the majority of the students care about the quality and how the food is prepared in students since a lot of students are worried the standard of the food served in the university campus it is clear that the level of quality food is not up to the mark and this can affect students over health and overall academic performance



#### Question 7: You often gotten ill after eating some university food outlet.

When asked how often you get ill after eating at some university outlet thirty-seven percent agreed whereas thirteen percent of the students strongly agreed to the statement above. This brings us to the conclusion that quality of the food served in the university food outlet is not up to the mark and this

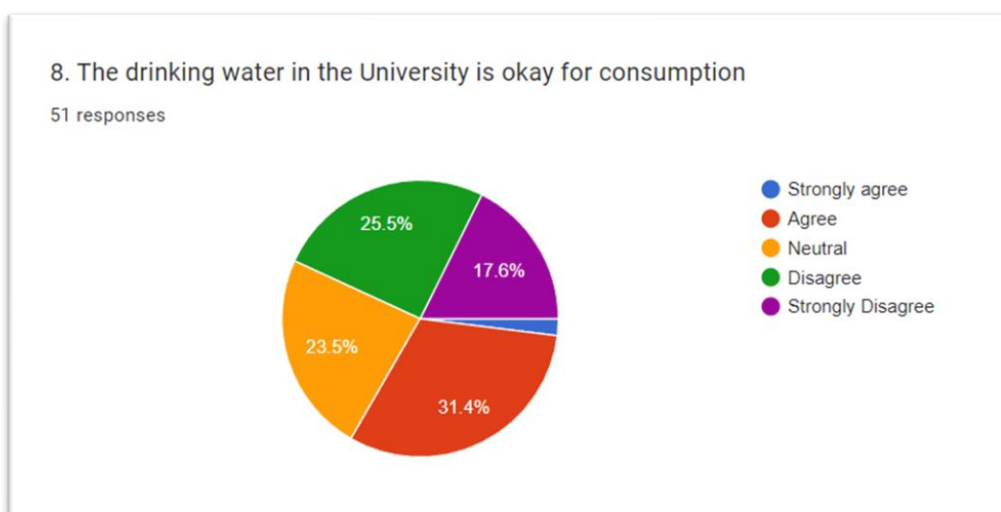
is suggestive of the fact that there is an inherent problem in the food served to the student in the university food outlet and regular consumption from the university food outlet results in various health related issues such as food poisoning, stomach ache etc. this results in reduced level of activeness, increased workload and stress among the university students.



**Question 8: The drinking water in the university is okay for consumption.**

When asked if the drinking water in the university okay for consumption thirty one percent of the student agreed whereas twenty five percent of the student disagreed and seventeen percent of the strongly disagreed and twenty-three percent of the students remained neutral. This brings us to the conclusion that majority of the students think that

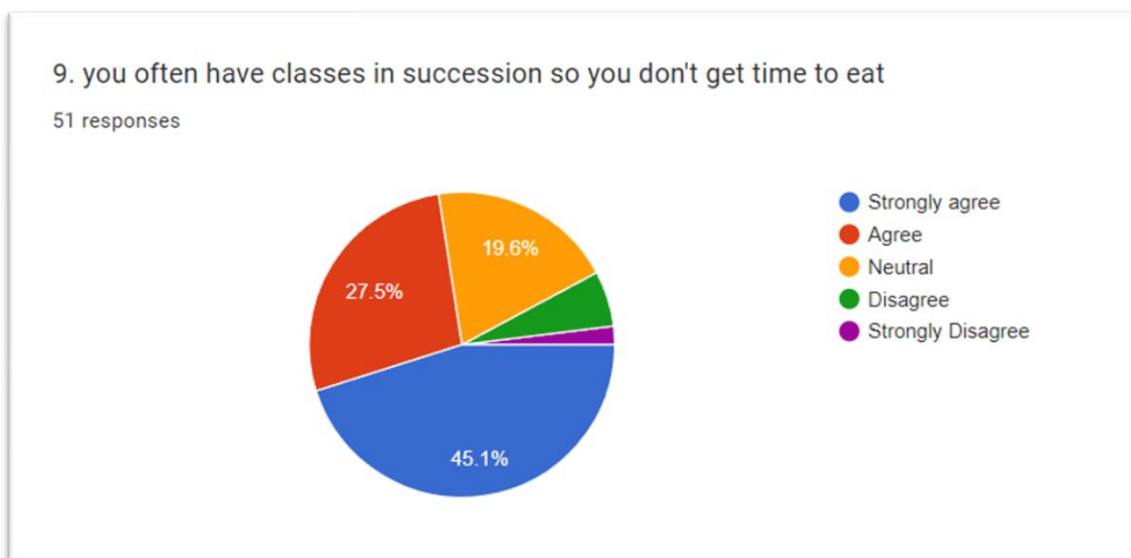
drinking water in the university is not suitable for drinking and drinking less water can cause dehydration among the students. As we know water in vital for health, water break down the food so that the body can observe the nutrients from the food. Not drinking enough water can lead to weak immunity, fatigue and dehydration etc. this results in low productive and stress among the university students



**9. You often have classes in succession, so you don't get time to eat.**

For the statement concerning how often students don't eat due to the succession of classes regularly it was discovered that approximately 45.1% strongly agreed with the statement that they do not get enough time to eat due to regular class which clearly depicts that most of the students find it hectic to attend classes in succession as they tend to skip their meal due to that and around 27.5% of students agree to the statement, which means more than half of students undoubtedly agree with the concerning statement. Out of 51 responses it was

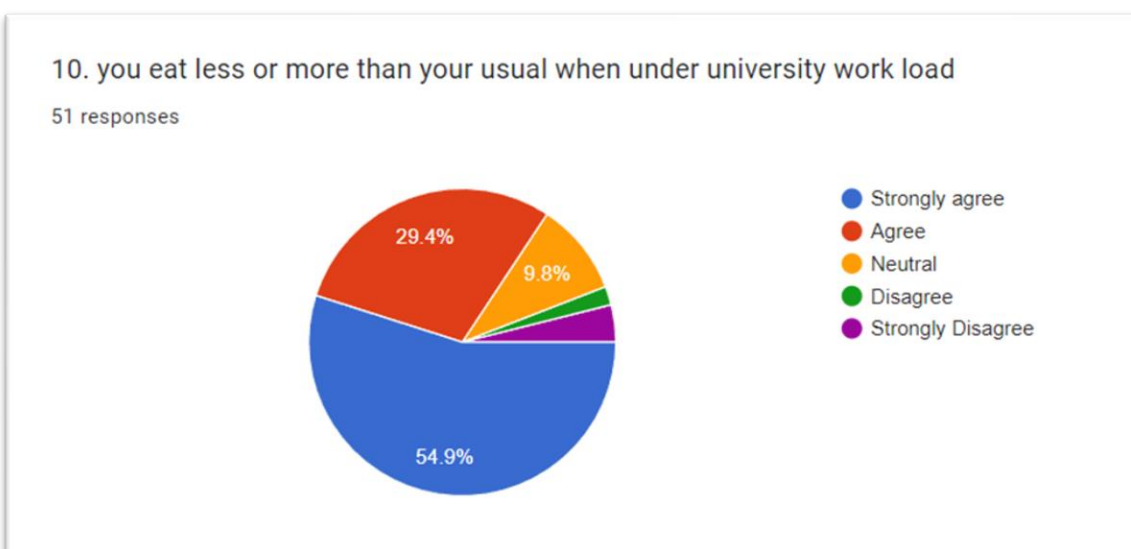
found that mostly due to the succession of classes regularly mostly students don't get time to eat and due to that they usually skip their meals as they don't get enough time which leads to adverse health conditions and have adverse effect on their academic performance and in a study done by Cardiff university in 2015 where when students who don't skip their meals were compared to those students who don't were compared it was found that students who don't skip their meals are twice as likely to score highly on tests and assessments. . Furthermore, 19.6% of students feel neutral about the concerning statement.



### 10. You eat less or more than your usual when under university workload.

For the statement concerning the eating habits of students under university work load it was found that approximately 54.9% of students strongly agreed to the concerning statement that due to the work load of university they found a huge difference in their eating pattern by eating less or more than their usual eating habits, which implies that more than half percent of students feels that due to the over burden of university they notice a variation in their eating pattern as excessive academic work load schedules leads to various

stress and anxiety that ultimately makes students to have negative mood and reduced or increased appetite. Also, around 29.4% of students agreed to the statement that they also face the challenge of negative or bad eating habits due to the workload provided by the university. Moreover, the current statement has a grave implication for the poor wellbeing of student due to the overburdening academic workload and if the same situation persists it will have an adverse impact over the students on staying active, performing well, and obtaining the necessary nutritional intake for demanding academic work.



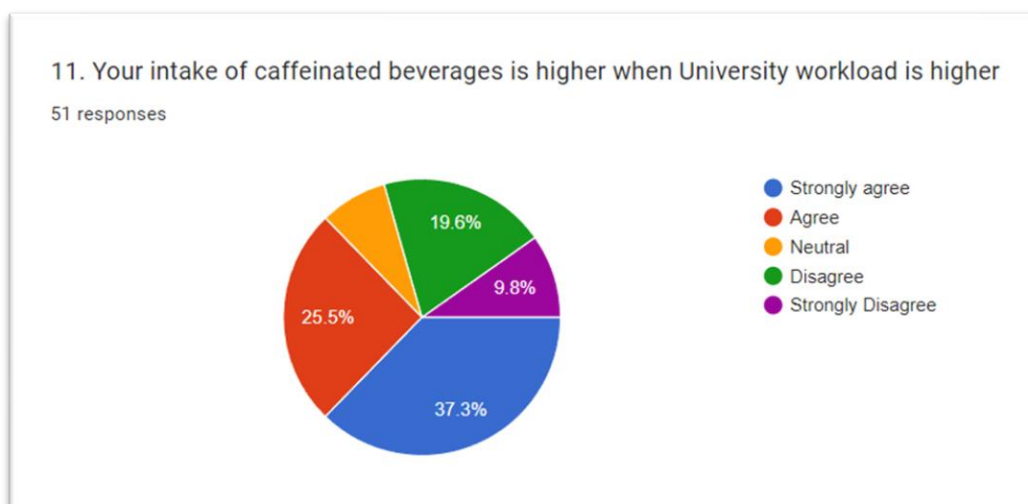
### 11. Your intake of caffeinated beverages is higher when the university workload is higher.

For the statement concerning about the intake of caffeinated beverages due to the higher workload of university, it was found that approximately 37.3% of students strongly agreed to the statement

that due to the increase in workload under university they tend to drink more caffeine in order to increase their alertness, energy and the ability to concentrate. Moreover, 25.5% of students also agree with the following statement which makes it more than half percent of students out of the 51-

responses collected and thus it was found that mostly due to high work load provided by university students tend to drink more caffeinated beverages than average, although caffeine increases activity of brain and nervous system but since it is a stimulant and it has various short term and long term negative effects on individuals such as insomnia, nervousness, restlessness and if taken

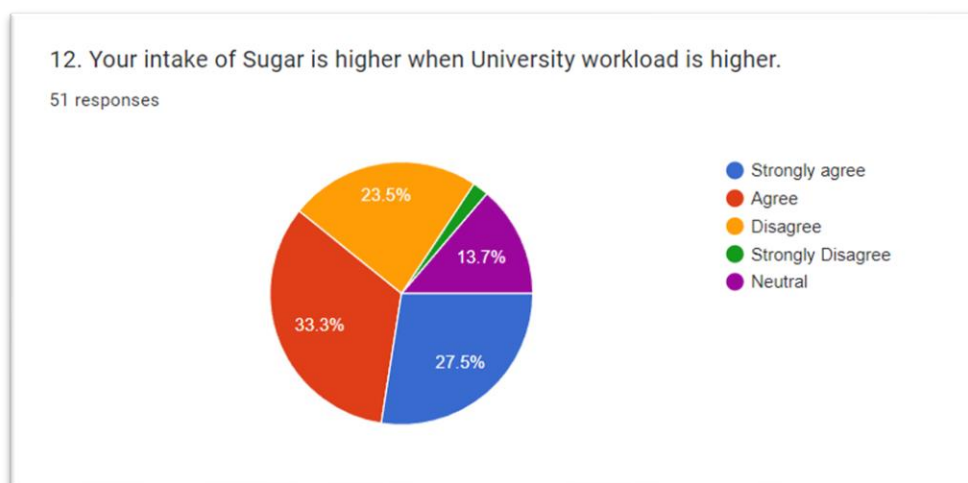
in long term it might cause headache, anxiety and even chest pain. So, proper dose of caffeinated beverages must be maintained among students to avoid severe effects. Also, it was found that 19.6% of students disagreed with the concerning statement that they don't intake higher caffeinated beverages under higher workload and around 9.8% of students disagree with the concerning statement.



### 12. Your sugar intake is higher when university workload is higher.

When under stress people tend to crave starchy and sugary foods and drinks. This is proven by the result of this statement; 27.5% strongly agree and 33.3% Agree with the fact that their intake of sugar is increased when their workload is higher. The

higher intake of sugar and sugary products puts the students at risk for a host diseases and disorders. High sugar intake is related with raised blood pressure, chronic inflammation, weight gain, risk of diabetes and fatty liver disease. All of these are precursor to an increased probability of heart attack and stroke. (Harvard Health, 2022)



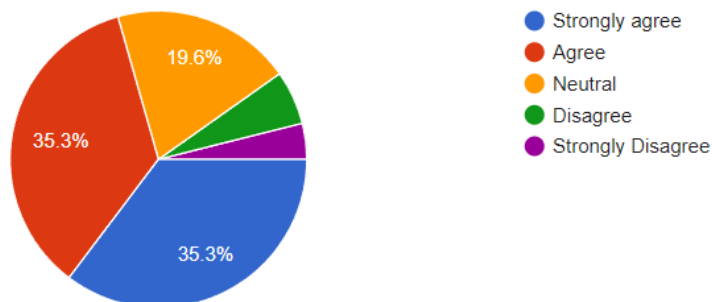
### 13. The work assigned to you hampers your normal eating habits.

With around 70% of the respondents agreeing to the fact that the work assigned to them, whether it is their classwork, assignments or project work is a direct reason for their skipping meals or not eating in their normal fashion/schedule. We see that

skipping a meal, that is, all meal through the day is quite prevalent in college students with breakfast skipping more occurrent in men and women skipping lunch and dinner more often. Lack of time has been reported to be the major cause of disruption in normal eating habits. (Pendergast et al., 2016)

## 13. The work assigned to you hampers your normal eating habits

51 responses

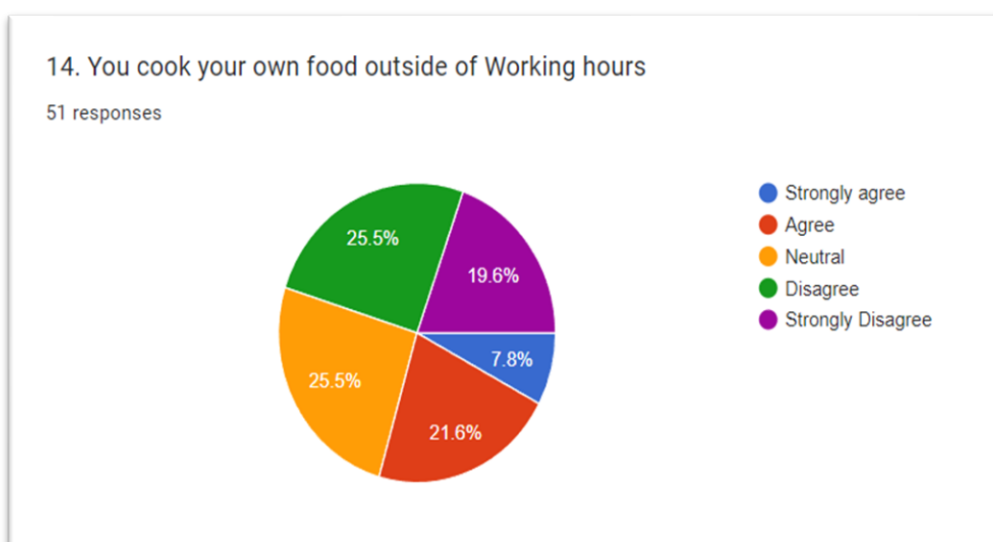


## 14. You cook your own food outside of Working hours

Cooking one's own food can be a good way to making sure that you're eating a balanced diet and that your food is hygienic and free of adulteration. It is also true that the college designated eating spaces like the hostel mess, the food kiosks and café's having to follow the university's strict guide lines for food preparation and composition. This leaves much to be desired from the food. Making one's own food however is a very different experience, not only is it statistically cheaper, but you can also adjust the quantity of the food as per

your appetite or how many people are going to be eating. (Malik, 2022)

However, the majority of students do not cook their own food, this is because the hostels do not allow for heavy cooking appliances or stove tops to be used. Moreover, even if they did allow then, there is no vendor for raw ingredients inside the campus. The students outside of the campus have access to the vendors and can use any cooking appliances they want. But still, we see that only about 30% of the students report that they cook their own food. One may argue that the workload that they are under is the cause of it and they would not be wrong.



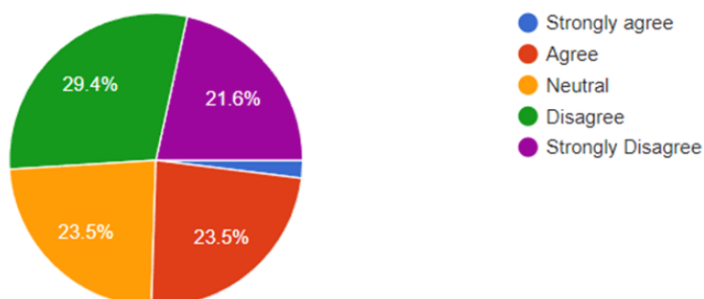
## 15. You find that the prices of food in the university outlets is affordable.

College students on a budget cannot spend extravagant amounts of money on food. They need cheap, affordable and nutrient rich food that delivers as much bang for their buck as possible. We see that only about a quarter of the respondents believe that the food in the campus is affordable or

worth its price. The spending budget of college students can be wrecked if they do not consider the money they spend on eating out when busy. This is particularly true for student living outside of the campus because prices in campus are regulated by the university. We see that preparing your own food and limiting the times you eat out is the best way to save your money. (*Dining Costs Eating up College Students' Budget*, 2021)

15. You find that the prices of food in the university outlets is affordable

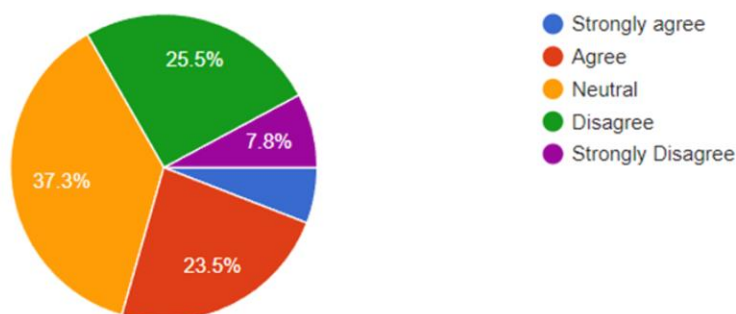
51 responses



16. The quantity of food provided in the campus outlets is satisfactory.

16. The quantity of food provided in the campus outlets is satisfactory

51 responses



We see mixed responses for this statement. That is to say that this is because of the subjectivity of the experiences that the students have. Some may believe that the portion size they are served is large while someone else will believe that it is small. Another dimension of this is that different shops and food outlets operate differently and put out different amounts of food. Still, we see over 30 percent of the respondents believe that the quantity of the food served is less than what it should be.

#### Conclusion:

The research has come upon proper data to validate the hypothesis stated. We see that high levels of stress and academic workload cause the students to skip meals and eat out of order. We see that this academic workload disrupts the normal day to day functioning of the students outside of college working hours, as we see that a large portion of the students report that they do not cook their own

meals and have to thus eat outside or order in. They also report that a majority of the students do not get time for leisure or relaxation because of the work assigned to them. The majority of the respondents report that the work assigned to them also hamper their eating habits outside of their university. This is related to the second hypothesis as we see that the university stress is affecting them and causing infrequencies in eating.

Lastly, we see that as subjective responses to the last open-ended statement provides an internal view of the situation. Some of the responses are, "That's what every student wants to tell or convey that the schedule of students is so rigid in university which lead us anxiety and stress and even though it's difficult to concentrate properly. Every professor wants us to do their subject only but it's difficult to complete one subject due to extreme workload. I have back pain from which I suffer- due to stress and tiredness."

“Unhealthy food, expensive food, no nutrients, excess oil, etc”

“The food that we get is not good. Either it be inside the campus and more over in the mess they will improve the food quality for some days or week or even month but again they will do the same as they have been doing. So I guess there is not point of being inside the campus if we don't get good food. Most of the time I have fall I'll because of the campus food.”

“The hectic timetable forces the students to compromise with their lunch or breakfast and this indeed has hampered our health and way of living.”

We see through the above statements that there is a valid and recognisable problem. But what is the solution? A regularised work schedule and a strict probation of the food outlets of the campus would be a good start. A better level of awareness among the students about the effects of disturbed eating habits on their health and conversely the effect of a poor health on their academic performance.

## References

1. American College Health Association-National College Health Assessment Spring 2008 Reference Group Data Report (Abridged): The American College Health Association. (2009). *Journal of American College Health*, 57(5), 477–488. <https://doi.org/10.3200/jach.57.5.477-488>
2. Choi, J. (2020). Impact of Stress Levels on Eating Behaviors among College Students. *Nutrients*, 12(5), 1241. <https://doi.org/10.3390/nu12051241>
3. *Dining Costs Eating up College Students' Budget*. (2021, December 16). Debt.org. <https://www.debt.org/students/dining-costs-eating-up-colleg-students-budget/>
4. Gibson, E. (2006). Emotional influences on food choice: Sensory, physiological and psychological pathways. *Physiology & Behavior*, 89(1), 53–61. <https://doi.org/10.1016/j.physbeh.2006.01.024>
5. Goodkind, D. (2021, November 14). *Skipping meals hinders academic performance*. Daily Titan. [https://dailytitan.com/opinion/skipping-eals-hinders-academic-performance /article\\_1477e42a-459b-11ec-961c-bbaf52dd2 acc.html#:~:text=When%20discussing%20the%20harmful%20effects,individual&apos;s%20ability%20to%20think%20straight.](https://dailytitan.com/opinion/skipping-eals-hinders-academic-performance /article_1477e42a-459b-11ec-961c-bbaf52dd2 acc.html#:~:text=When%20discussing%20the%20harmful%20effects,individual&apos;s%20ability%20to%20think%20straight.)
6. Greeno, C. G., & Wing, R. R. (1994). Stress-induced eating. *Psychological Bulletin*, 115(3), 444–464. <https://doi.org/10.1037/0033-2909.115.3.444>
7. Grunberg, N. E., & Straub, R. E. (1992). The role of gender and taste class in the effects of stress on eating. *Health Psychology*, 11(2), 97–100. <https://doi.org/10.1037/0278-6133.11.2.97>
8. Habhab, S., Sheldon, J. P., & Loeb, R. C. (2009). The relationship between stress, dietary restraint, and food preferences in women. *Appetite*, 52(2), 437–444. <https://doi.org/10.1016/j.appet.2008.12.006>
9. Harvard Health. (2022, January 6). *The sweet danger of sugar*. <https://www.health.harvard.edu/heart-health/the-sweet-danger-of-sugar#:~:text=%22The%20effects%20of%20added%20sugar,%2C%22%20says%20Dr.%20Hu.>
10. Heatherton, T. F., Herman, C. P., & Polivy, J. (1992). Effects of distress on eating: The importance of ego-involvement. *Journal of Personality and Social Psychology*, 62(5), 801–803. <https://doi.org/10.1037/0022-3514.62.5.801>
11. Hill, D., Moss, R., Sykes-Muskett, B., Conner, M., & O'Connor, D. B. (2018). Stress and eating behaviors in children and adolescents: Systematic review and meta-analysis. *Appetite*, 123, 14–22. <https://doi.org/10.1016/j.appet.2017.11.109>
12. Kandiah, J., Yake, M., & Willett, H. (2008). Effects of Stress on Eating Practices Among Adults. *Family and Consumer Sciences Research Journal*, 37(1), 27–38. <https://doi.org/10.1177/1077727x08322148>
13. Kim, J., & Lee, E. (2022). Association between Healthy Eating Index and Mental Health in Middle-Aged Adults Based on Household Size in Korea. *International Journal of Environmental Research and Public Health*, 19(8), 4692. <https://doi.org/10.3390/ijerph19084692>
14. Koehler, P. (n.d.). *What is a Workload? | VMware*. The Cloud Platform Tech Zone. <https://core.vmware.com/blog/what-workload>
15. LeBlanc, N. J., MA. (2019). How to handle stress at work. *Harvard Health*. <https://www.health.harvard.edu/blog/how-to-handle-stress-at-work-2019041716436>
16. Leonhardt, M. (2022, July 15). Crisis on campus: 60% of college kids are living with mental health disorders, and schools are woefully unprepared. *Fortune Well*. <https://fortune.com/well/2022/07/12/mental-health-crisis-college-schools-unprepared/>

17. Malik, S. (2022, February 7). *College students should cook more at home*. Pipe Dream. <https://www.bupipedream.com/opinions/124393/college-students-should-cook-more-at-home/>
18. *Occupational health: Stress at the workplace*. (n.d.). <https://www.who.int/news-room/questions-and-answers/item/occupational-health-stress-at-the-workplace>
19. Pendergast, F. J., Livingstone, K. M., Worsley, A., & McNaughton, S. A. (2016). Correlates of meal skipping in young adults: a systematic review. *International Journal of Behavioral Nutrition and Physical Activity*, 13(1). <https://doi.org/10.1186/s12966-016-0451-1>
20. Richardson, A. L., Arsenault, J. E., Cates, S., & Muth, M. K. (2015). Perceived stress, unhealthy eating behaviors, and severe obesity in low-income women. *Nutrition Journal*, 14(1). <https://doi.org/10.1186/s12937-015-0110-4>
21. Schultchen, D., Reichenberger, J., Mittl, T., Weh, T. R. M., Smyth, J. M., Blechert, J., & Pollatos, O. (2019). Bidirectional relationship of stress and affect with physical activity and healthy eating. *British Journal of Health Psychology*, 24(2), 315–333. <https://doi.org/10.1111/bjhp.12355>
22. Smith, A. (2019). Student Workload, Wellbeing and Academic Attainment. *Communications in Computer and Information Science*, 35–47. [https://doi.org/10.1007/978-3-030-32423-0\\_3](https://doi.org/10.1007/978-3-030-32423-0_3)
23. 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. <https://doi.org/10.3390/nu10121823>
24. Stress. (n.d.). <https://www.apa.org>. <https://www.apa.org/topics/stress/>
25. *Stress*. (2022, June 17). <https://www.who.int/news-room/questions-and-answers/item/stress>
26. Student, E. U., Saikia, H., & Patel, S. H. (2019). A Study on The Eating Habits of The College Students Sarjoo Patel. *ResearchGate*. [https://www.researchgate.net/publication/337918706\\_A\\_Study\\_on\\_The\\_Eating\\_Habits\\_of\\_The\\_College\\_Students\\_Sarjoo\\_Patel](https://www.researchgate.net/publication/337918706_A_Study_on_The_Eating_Habits_of_The_College_Students_Sarjoo_Patel)
27. Sullivan, J. (2023). 12 Reasons College Students Have A Hard Time With Healthy Eating. *Tasting Table*. <https://www.tastingtable.com/974938/reasons-why-college-students-have-a-hard-time-with-healthy-eating/>
28. Torres, S. J., & Nowson, C. A. (2007). Relationship between stress, eating behavior, and obesity. *Nutrition*, 23(11–12), 887–894. <https://doi.org/10.1016/j.nut.2007.08.008>
29. Zellner, D. A., Loaiza, S. N. P., Gonzalez, Z., Pita, J., Morales, J., Pecora, D., & Wolf, A. (2006). Food selection changes under stress. *Physiology & Behavior*, 87(4), 789–793. <https://doi.org/10.1016/j.physbeh.2006.01.014>
30. Zellner, D. A., Saito, S., & Gonzalez, J. (2007). The effect of stress on men's food selection. *Appetite*, 49(3), 696–699. <https://doi.org/10.1016/j.appet.2007.06.013>