Nutrition on academic performance

Nutrition

April Creed April 12, 2012 GWRTC 103 Professor Critzer The Effect of Nutrition and Fitness onAcademicPerformance Thehealthand overall fitness of adolescents and students has taken a radical turn in the most recent decades. Each year the overall body mass index of this particular group of individuals is steadily increasing. It seems to many that one's health is a vital role in success, especially in the academic realm. Research was conducted to see whether this slight decrease of fitness and health has an impact on a student's academic performance (Burkhalter 201).

A broad range of sources was utilized to find other factors that played a role in academic performance such asfamilylife and sleep habits. The search was then strictly narrowed down to the effect of nutrition and fitness on scholastic performance. By the end of the investigation, it was found that nutrition is vital to brain functioning and cognition. The main point that was targeted became: skipped meals are the largest cause of unhealthy habits in a student's academiccareer, but this can be prevented by providing morefoodoptions for students and also by not having available classes during meal hours.

This seems like a cliche issue and obvious topic, but this simple subject can have a huge impact on the lives of our adolescents, but more importantly the future of our country. Children, adolescents, and young adults are constantly bombarded with assessments, evaluations, and exams that test their knowledge. All of these, combined with everyday lectures and studying, form to make what society knows as " school. " In today'sculture, from roughly four years old until about twenty-three years old, schooling (pre-

school, elementary school, middle school, high school, and college) is a young person’s career.

It is a time consuming process that involves commitment and dedication. Many factors play a role in how well a student performs. The most thought of, and prominent factors may include family life, time dedicated to studying, sleep habits, and the teachers or professors ability to relay information. One study, conducted by A. H. Eliassion, investigated the relative importance of total sleep time compared to a college student’s academic performance (Eliasson 71). The results proved that those with the highest academic performance had significantly earlier bedtimes and wake times (73).

It was found that students could improve their academic performance by targeting their sleep habits (73). Another study conducted by Wanda Williams in 1995 investigated parent-child relationships in correlation with academic achievement (Williams 3). The results from this survey showed that the main contribution to a student’s success is family life and parent involvement (14). A few other factors that people sometimes do not think of may include nutrition, diet, and physical activity. According to Webster’s dictionary, nutrition most clearly means, “ The act of nourishing or being nourished. The term diet may include definitions that of, “ Food and drink regularly provided or consumed,” or, “ Habitual nourishment,” and the term physical fitness (or exercise) is known as, “ Bodily exertion for the sake of developing and maintaining physical fitness. ” Some may argue that poor academic performance could in turn lead to poor habits in health; that thestressand pressure placed on young people causes them to neglect their

fitness and well-being. On the contrast, maybe this theory is completely opposite.

In this paper I will attempt to answer the question: does nutrition and fitness have an effect on a student's academic performance, and, if so, how? From breakfast consumption and sports involvement to the amount of television watched and family involvement, everything plays a vital role in a student's success. Even things that seem so minor can have a profound impact on the long-term accomplishments in young people's lives. Healthy habits in nutrition, diet, and fitness have a positive impact on a student's academic performance.

Skipped meals are the largest cause of unhealthy habits in a student's academic career, but this can be prevented by providing more food options for students and also by not having available classes during meal hours. Conducted at the infancy of this subject was an experiment by Toni Burkhalter and Charles Hillman. This research began because these two were interested and shocked by the consistently increasing BMI (body mass index) in children and adolescents across every demographic in the United States (Burkhalter 201). Their goal was to target energy intake in comparison with scholastic performance.

Burkhalter and Hillman defined energy intake as nutrient intake, body mass, and physical activity. Through research they discovered and confirmed that nutrition substantially influences both the development and health of brain structure and function (204). Providing the proper building blocks for the brain to create and maintain connections is critical for improved cognition (mental processes) and academic performance. Their investigation verified

that an increase of physical activity participation leads to an increase in cognitive health and function (206).

Many people hear the cliche lectures about eating healthy, maintaining a stable diet, and practicing regular exercise. But most do not realize that these habits play a crucial role in brain functioning. The brain intakes and retains the most information in a person’s adolescent years, so it is vital to create a primeenvironmentin your body for learning. There are some who relate academic performance to breakfast habits. Throughout our lives we hear doctors, teachers, and parents stress that breakfast is the most important meal of the day.

People will argue that it starts one’s day, gets one’s metabolism going, and provides the nutrition necessary for a healthy day and lifestyle. It has been proven that children require optimal nutrient intake to meet the basic demands of growth and development. Gail Rampersaud, M. S. , and Mark Pereira, Ph. D. , attempted to find supporting evidence of this claim, and conducted a study in 2005. They found that over 59% of students skip breakfast more than three times a week, and that as a student’s age increased, so did their habit of skipping breakfast (Rampersaud 745).

After surveying various age groups, they compared breakfast eating habits to their overall academic performance. Next, the students were given a variety of standardized and customized tests (745). The results showed that breakfast eaters not only had a higher average on the assessments, but also had better school attendance and less tardies (751). This study was difficult because people have a very hazy and different standard and definition of “ breakfast. ” Some view it as a glass of milk, some view it as an apple, others

see it as a bowl of cereal, and some have a feast consisting of bacon, eggs, hash browns, ham, and toast in their mind.

Either way, it was determined to be anything you intake as nutrition at the beginning of your day. There is substantial evidence that breakfast consumption is associated with health and wellbeing of children and adolescents, and these benefits apply to a wider age range, as well as other demographic and socioeconomic groups. There is also a great deal of evidence that breakfast eaters have overall healthier lifestyles and better health (diet and exercise) habits. Some claim that students should be able to schedule and maintain their own nutritional habits.

But others, like Cathy Estes, agree that this lifestyle needs to be a co-effort between students, parents, and teachers. She says that, " Studentresponsibilitydoesn't just happen. Teachers and parents must expect it, model it and nurture it. An optimal educational outcome depends on collaboration between teachers, parents and students (Estes 1). " It needs to be something that both parties view as a necessary goal. Student's can have good intentions, but faculty and staff at the school's need to support these intentions.

Arranging more suitable class times and a better variety of nutritional foods can easily do this. Another study conducted by Florence, MD sought to target not just the nutrition aspect, but the overall diet quality and academic performance correlation (Florence 209). The study concluded the following results: Students with decreased overall diet quality were significantly more likely to perform poorly on the assessment. Girls performed better than boys as did children from socioeconomically advantaged families. Children

attending better schools and living in wealthy neighborhoods also performed better.

Conclusions: These findings demonstrate an association between diet quality and academic performance and identify specific dietary factors that contribute to this association. Additionally, this research supports the broader implementation and investment in effective school nutrition programs that have the potential to improve student access to healthy food choices, diet quality, academic performance, and, over the long term, health (Florence 209). According to the previous study performed by Rampersaud, breakfast plays a vital role in diet quality.

This is another important aspect for dedicated times for eating. Breakfast is not going to be a high priority for a student if his/her class falls in that time frame. Not only do both of the studies support each other, but they also tie in other aspects that could affect academic performance, like family life. This study tries to emphasize that the term " academic achievement" isn't measured by tests alone, but also by attendance, attentiveness, and involvement (212). They also stated that fruit and vegetable intake had a significant impact on memory and overall learning (213).

Finally, the study's results showed that " undernourished males were twice as likely to fail an assessment as undernourished females. " A sub question that may be necessary to add the research question is this: do gender differences have an affect an effect on academic performance? Sayid Ghazvini answers this question with his research. He stated that his primary goal was to " Find gender differences in factors affecting academic performance ofhigh school students(Ghazvini 1041). " He had many different

aspects involving “ academic performance. While his results showed no significant difference in the overall achievement of the students, there were differences in the many features connected with his concept of academic performance (1043): Results show the existence of gender difference in variables under consideration, with girls showing internal locus of control, using attitude, motivation, time management, anxiety, and self-testing strategies more extensively, and getting better marks in Literature. With boys using concentration, information processing and selecting main ideas strategies more, and getting better marks inmathematics(1043).

As we see, male and females seem to have the same overall results. This gender factor probably does not have a significant impact on the nutrition and fitness study, but can be noted when taking a closer look at the details that combine to form out term “ academic achievement/performance. ” Some critics say that student’s should be held solely responsible for their extracurricular activities, including eating, watching television, exercising, and studying. But studies show that when a person is considered an adult, their brain is still developing.

They still need instruction and guidance in different aspects of their life. Researcher, Craig Bennett, stated that, “ Humans don’t really develop the ability to handle multiple pieces of information at once until about the ages of 16 or 17. The brain of an 18-year-old college freshman is still far from resembling the brain of someone in their mid-twenties (Than 2). ” Healthy habits don’t just come naturally, they take time and dedication to develop and maintain. Another study done by Jane Edwards attempted to target physical activity in relation to academic performance (Edwards 65).

This experiment was conducted on sixth graders in a Midwest City school district. It was her goal to compare physical activity, overall fitness, and body mass index of 800 students. Next she matched these results with standardized test scores. To measure physical activity and fitness, Edwards set up a variety of physical tasks (curl ups, pushups, mile run) and included the student's weight and height. In the end, she found that the healthier, more physically fit students performed better on their standardized tests.

Edwards, like Rampersaud and Florence, also included other variables in her study. She pointed out the significance of breakfast consumption as well. Also, she brought in other lifestyle habits like the amount of television watched and extracurricular activity involvement. This amount of exercise is vital to a student's healthy lifestyle. Exercise should become a requirement at schools and colleges. It is proven to affect their academic performance, so why shouldn't academic grading also require some sort of workout in a student's daily routine?

A journal published by Taras H, a professor at the University of California, noted the association between nutrition and a student's performance at school (Taras 200). Taras broke down the term nutrition into four sub-categories: food insufficiency, iron deficiency and supplementation, deficiency and supplementation of micronutrients, and the importance of breakfast (201). Research shows that children with iron deficiencies are at a disadvantage academically. Their cognitive performance improved with iron therapy. Cognitive performance is a student's ability to obtain and store knowledge.

Again, breakfast consumption demonstrates to be a vital aspect of a young person’s health. A healthy lifestyle not only consists of a certain number of meals a day, but also various types of nourishment and physical activity. It was also found that food insufficiency is a serious issue that affects a child’s ability to learn. Finally, after surveying and undernourished population, a breakfast program was initiated, and analysis showed that academic performance and cognitive functioning significantly increased. As it has been proven through countless studies, many things contribute to academic achievement.

But the main issue that related to student’s health is skipped meals and lack of exercise. To many, these seem like easy to target problems. But why is the problem consistently worsening? Because no one is taking initiative to find solutions. The most doable and reasonable solution is to incorporate a greater variety of food options (in the healthier realm) for students/adolescents, not schedule classes or other activities during meal hours, and have a mandatory tentative exercise schedule as part of a student’s academic career. Words Cited Burkhalter, Toni M. , and Charles H.

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