What is the impact of malnutrition on academic success? How can the educational system be enhanced to help individuals break this life cycle?

The life of a student is a busy one that involves numerous different activities that can vary from working and studying to sleeping and eating. Every student strives as much as their capabilities allow to achieve academic success in their educational careers. However, there can be obstacles and impediments that hinder students from reaching their full potential as they grow older. For instance, nourishment can be the determining factor in a given student's academic performance. In a first world country such as Canada, the attainability of sustenance is often not a challenge. However, the quality of that food is often questionable, as unhealthy diets often do not contain the necessary nutrients required for normal growth. Academic success is dependent on mental and physical health of the student because they will be productive in their learning when they take care of themselves and feel their best. In order to prepare students for their academics, basic needs must be met, as such they must be well rested and well fed. It is worth noting that students should have diets that consist of all the seven different nutritional food groups since it will be of utmost importance to optimize their learning by ensuring a healthy brain.

Unfortunately, malnutrition is a genuine problem that is present in the Canadian community today which entails permanent long term impacts. It poses a very serious threat for the younger generation in particular since a, "study found that malnourished children suffered irreversible damage; they grew up smaller and weaker, and their brains might not develop

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fully". This implies that students will not only suffer academically in the short term but also in the long term with impact on several things such as intelligence, physical, and mental health; a range of issues whose impact is very significant on the life of the student, the people close to them and also the Canadian society. It is because they are young and in the growing phase of their life that it especially crucial for these students to have all their nutritional requirements met, since they may not know any better but the adults of Canadian society do, and if any negative outcomes arise they will have to be faced by those students for the rest of their lives. This lack of nutrition in the diets of students is dangerous to their health and damaging towards their academic performance. In fact, the Centres for Disease Control and Prevention states that, "Deficits of specific nutrients (i.e., vitamins A, B6, B12, C, folate, iron, zinc, and calcium) are associated with lower grades and higher rates of absenteeism and tardiness among students"². This nutritional deficit is at the root of the problem that is found amongst students that struggle with academics. Habits such as tardiness and absenteeism are arising in students because of their diets and this is likely interfering with their ability to perform well in school as they would then become unable to attend their lessons and fall behind making it even more difficult for these students to catch up to their peers. These students need to have a rich diet that can fuel them providing them with the energy and nutrients that they need to thrive and succeed on a daily basis. By addressing and resolving the issue of malnutrition, students will be taking better care of their health as well as preparing themselves for their day as they will have the energy needed to reach their goals. The aforementioned study may also be linked to the amount of nurture and care

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provided to the students, if they feel that they are being provided for adequately, it was make the students feel valued and cared for thus raising their self esteem and confidence.

Malnutrition is a problem that students face today and have faced for a long time yet it is an issue that doesn't receive the attention that it deserves. This is part of the reason why this issue still exists and has yet to be resolved. In Canadian society, malnutrition is unheard of in the media, nor is it's significance taught in schools and there is not a great deal of awareness about it on any level; as a result, it has become a hidden cancer to society and continues to affect people's lives and nothing is being done about it. One of the ways in which the educational system can help individuals break this cycle of malnutrition is by bringing about awareness through the use of incentives, campaigns, workshops and events. Students and parents need to be informed about the importance of health because the performance of the students also considered to be the adults of tomorrow is dependent on it. Many members of the communities with malnourished students are not aware of the existence of this issue so the public requires enlightenment.

An example of this is seen at McMaster University, where the university offers a service called Mac Bread Bin that is organized and run by students which serves the other students of McMaster as well as other members of the neighbouring community. They offer a wide variety of services which include a monthly food box that is filled with fresh local produce, an anonymous order form for assistance with acquiring non perishable food items, and an on-campus food bank dedicated to helping people to non perishable foods.³ Another example of

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an initiative is by the Canadian Malnutrition Task Force (CMTF) which is a group of clinicians, decision makers and investigators whose purpose is to reduce malnutrition by promoting nutrition care knowledge and optimal practice through research and education activities focused on preventing, detecting and treating malnutrition in Canadians. They host an awareness week campaign every year in the end of September to inform parents, teachers, and public in general about the importance of optimal clinical nutrition care.

Another way in which the educational system can help is by introducing new policies that provide healthy food options in school cafeterias, vending machines and at school events instead of unhealthy junk food items. The effects of malnutrition can be countered through the consumption of nutritious food. Once the intended audience is exposed to healthier food options that are appealing, a decrease in malnutrition can be anticipated. For example, an initiative called the Manitoba Healthy Food in Schools focuses on promoting the development of students through healthy eating. There are policies and guidelines that have been put in place that truly embed the concept of student health into the school environment by providing nutritious food options. By fostering such values within a school community, students will build habits that prioritize their health. This will create a long lasting impact on the students once they enter into adulthood as they will be conscious of their health.

Furthermore, schools can create initiatives that involve a council or committee that includes parents, students and school staff within their own community. This can potentially create a positive effect that can spread through all levels of the community. In this way, students

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will inform other students, parents will inform other parents, and educators will inform other educators. These councils should help set up fundraisers for healthy eating programs such as breakfast clubs, school gardens and student recognition programs for healthy eating. For example, Carmel Middle School is part of a school district that has created plots for school gardens. This initiative in particular impacts students since they get the opportunity to learn about healthy eating by growing food in their school's garden. Such experiences can be enlightening and inspiring for the students since they can begin to understand and appreciate the value of nutritious food. This will cultivate a culture that allows the students to see the significance of a healthy diet in their lifestyle.

Lastly, the educational system can encourage students to take interest in their health by promoting courses related to nutrition and health in schools. This can allow individuals to understand the correlation between malnutrition and academic success through their education. Students can then utilize their learnings by applying them to their personal life. This will instigate the change in student lifestyles that is needed to eradicate a life cycle of malnutrition.

In the wise words of Winston Churchill, "Healthy citizens are the greatest asset any country can have". He understood that for any country to advance and progress, it is of the utmost importance to have citizens whose basic requirements such as food and health were being met. Only after the citizens of a country are secure individually can they come together and create that security for others. In order to make Canada a great country, there needs to be a focus on ensuring that its citizens are healthy. The students of today are going to be the adults of

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tomorrow; therefore, it is the community's duty as members of Canadian society to ensure that these students develop to their full potential. Moreover, it is society's duty to ensure that these students are provided with the best future possible.

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