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NFSC 320 Extra Credit
Forks over Knives

“Forks Over Knives” is a documentary that examines an extremely controversial claim that many, if not all, of the degenerative diseases that affect humans can be controlled or reversed by rejecting a menu of animal based foods and processed foods. Obesity has become an epidemic in the United States. Children today may be the first generation to not live past their parents. In the United States, over 120 billion dollars each year is spent on diet related health issues. Diabetes and Heart Disease are continuing to skyrocket in numbers, especially in our younger population.

This documentary takes a look at a very straightforward solution to the rapid increases in diseases in America, that being diet. The recommendation is to eliminate and reduce animal based foods in order to reverse illnesses. It is stated that Americans should adopt a whole food and plant based diet. I strongly believe in the power of diet and lifestyle in order to overcome illness. I found it interesting that the ‘fork’ is depicting diet and the ‘knife’ is depicting medicine. Americans today are so easy to jump to bypass surgeries and other procedures in order to fix heart related illnesses, but the real problem is the lifestyles of these people, especially the foods they are consuming.

This film follows several different individuals who either have diabetes, obesity or heart disease, or all of these issues. One individual in particular, Lee Fulkerson, I found to be an incredible depiction of how diet can truly change ones health state. Lee had high cholesterol and a CRP (measures inflammation of the heart of vessels) test of 6.0 when first meeting with doctors to develop his health care plan. After adopting a whole foods and plant based diet the numbers just astounded me of his test results. His lipid profile, weight, energy level and CRP test were all affected in a positive way, just by simply changing his diet. In these cases that were followed in the film, it was shown that pill-popping is not always the answer to a cure, food can be that medicine needed to overcome or reverse illnesses.

“Forks Over Knives” follows the careers of two very impressive people, Dr. Campbell and Dr. Esselstyn. Both individuals grew up on farms where dairy and meat products were produced, but eventually landed themselves in roles where they were talking against the products their families produced on the farms growing up. Protein, refined sweeteners and dairy product consumption have all increased over the years. In the late 50s, drive-ins, convenience foods and processed foods were all introduced into the market to make lives easier.

Campbell studied animal nutrition and biochemistry while Esselstyn was more focused on the rise of heart disease. This film makes the claim the dietary cholesterol stays in the bloodstream and develops into plaque, which causes coronary heart disease. In the United States, 50 billion dollars each year is spent on heart bypass surgery. I believe that diet is a strong indicator of heart disease. A diet high in saturated and trans fats will increase the build-up of plaque in the arteries. However, I also believe there are many other indicators for the illnesses other than diet. I think diet is one part of the problem, which requires the elimination of saturated fats, which come from animal protein. In addition to diet, lifestyle factors, environment and genetics also play a role. I do think if there are different variables that a person can alter and correct for the better, such as diet, in order to prevent illness, then why not do so?

In the mid 1960s Campbell was in the Philippines trying to get protein to malnourished people. It was then that he discovered that liver cancer in children was showing up in families

that were eating a high saturated fat diet. At this same time, the fast food revolution was in full effect and the rate of cancer was continuing to rise. Esselstyn was now on a breast cancer team where he investigated the global statistics of breast cancer. He discovered that prostate cancer and heart disease in the US were extremely high in comparison to other countries. These countries did not follow animal based diets. This was beginning to show a strong link between animal based foods and deadly diseases.

A whole foods, plant based diet is one that consists of fruits, vegetables, grains and legumes with the elimination of processed foods and animal based foods. In 1975, Campbell was at Cornell researching what he learned in the Philippines, which was the association between diet and cancer. He studied rats, altering their levels of casein. With a high level of casein, the rats had cancer growths, but with a low level of casein there was no evidence of cancer. I found it astonishing that when he switched the diets back and forth, increasing and decreasing the casein levels, the cancer clusters would develop in the liver but then the growth would go down when the casein was decreased. This shows how diet can not only control cancer, but reverses the effects of the disease.

Whole nutrition should be the act of all foods working together in a holistic effort to combat disease. Diet should not be high in fat with fried foods, fast food and no greens. Calorie dense foods do cause obesity and overeating and in 1973 the food industry exploded with the Farm Bill, which led to the mass production of products with high fructose corn syrup. I don't necessarily think it is the high fructose corn syrup that causes obesity and disease. I think it is really a calorie issue as a whole. Americans who make the choice to consume these foods are most likely not healthy Americans, so they are overall consuming too many calories, which leads to obesity and disease. I don't think if a person chooses to eat a product a few times a week with high fructose corn syrup, that they will automatically be obese and have illnesses. It is the lack of moderation that exists among Americans for these products that is the real issue.

Campbell believes that cancer starts with genes and that whether or not we get cancer depends on our habits overtime. I think there is definitely random cases of individuals getting cancer, that made all the right decisions in their lives, but there are also individuals who in a sense 'promoted' the growth of disease. Making the choice to eating unhealthy, smoke, drink and not exercise I believe increase your chances of disease. In Campbell's China study the results really struck me. Illness was grouped in areas, where the population as a whole was the same, so it must have been connected to diet. The study conducted looked at sixty-five countries in China (rural and semi-rural), and 6,500 people were surveyed in diet and urine and blood samples were also analyzed. Finally in 1990 'Diet, Lifestyle and Mortality in China' was published with the results of the study. There were large numbers of correlations between diet and disease. The message was that a plant food based diet and a diet of low animal product foods, was always associated with lower rates of disease.

At this same time, Esselstyn was studying patients with cardiovascular disease. These patients were very ill and he put them on a plant-based diet for treatment, including no medications. I could not believe that all of these people in his study were still living and doing very well, with illnesses reversed. He also later removed dairy products from the diets of his patients, which showed significant evidence of arteries reversing and plaque build-up diminishing.

I really found truth in the statement that 'some say eating this way is extreme', but 'some would say that bypass surgery is extreme'. People will never agree on the issue of diet and how it can improve health and reverse disease outcomes. There are many factors for this, such as the

standards our government sets for food recommendations. One of the individuals featured in the film that had the most resonating affect for me was Connie Diekman, former president of the American Dietetic Association. Her statements in the film such as “when you eliminated animal proteins you eliminate nutrients that you need” and “we need dairy products for calcium”, I do believe are true, but the implications that are pushed onto the public is what I feel is wrong. I read the book, “Food Politics” a few years ago, which reveals how corrupt the USDA and FDA really are. Everyone is in the business of making money, not protecting the health of the people, which should be their primary effort. In the film it states that high calcium intakes have shown an increase in hip fractures, which is the key indicator of osteoporosis. This is the exact opposite of what the dairy industry says, of how consuming adequate levels of dairy (calcium) will reduce your risk of osteoporosis. What really stayed with me on the dairy issue was that the recommendation from the ADA is to consume products that are low fat or no fat, but comparing results of this consumption of dairy with prostate cancer is just as strong with the results of smoking of prostate cancer...wow!

We are a medication driven society and the USDA guidelines for Americans, I believe should be taken literal, as a guideline. This shouldn't be the exact diet for all Americans because all people are different. Males and females should not be consuming the same types of protein, amounts of protein, and dairy. Just as discussed in the book ‘Food Politics’, in the film it discusses how the government contracts with the dairy and meat industry and how the government is concerned with ‘financial health’, not ‘human health’. The panel that chooses the guidelines for Americans as a majority has financial links with the food industry. With these links individuals on these panels can't state for example ‘eliminate saturated fat and trans fats’, they must say have a ‘moderate’ intake of saturated and trans fats, so that their food industry relationships are kept sound. I could not believe that when Campbell was teaching at Cornell his course was dropped, which was clearly an arbitrary decision. The money for the course was coming from corporate money that was also linked with the food industry, which only tells me that the industry didn't want Campbell's views on a plant based diet being taught to students.

I believe as Dietitians, the evidence of diets with animal protein and diets without animal protein should both be presented to clients. I don't think that consuming moderate amounts of animal protein not loaded with saturated fat is necessarily bad. I do believe as people studying nutrition, and we will eventually go out into the field, it is important to educate Americans about the controversy and present the evidence for both sides of the diet argument. From there it is a personal decision one will make regarding their diet. All we can do is educate people about plant and animal based diets and the evidence behind the two correlated with health and disease states. It is very easy for Americans to listen to what they hear as guidelines from the government, listen to suggestions in the media and adopt them, not knowing any other alternative.

It was shown in the film the success that so many had adopting a plant based diet. I do feel that in many circumstances this type of diet can be beneficial. When you are in a disease stricken state of heart disease or cancer, eliminating animal products I do feel will lower your risks of ongoing illnesses because saturated fat is an indicator for the progression of these illnesses. “Forks Over Knives” is a film that can educate many people about an alternative way of eating. The ending statement of the film, ‘eat to live and don't live to eat’, I believe is a fact. We should be eating foods to benefit our health and longevity, not ones that put us at risk for illness and death.

Literature Review:

1. Gallagher SK, Klevay LM, Spiller GA. A diet in whole and unrefined foods favorably alters lipid, antioxidant defenses, and colon function. *J Am Coll Nutr.* February 2000; 19(1):61-70.
2. Jenkins DJ, Kendall CW. Combined effect of vegetable protein (soy) and soluble fiber added to a standard cholesterol-lowering diet. *Am. Journal of Clinical Nutrition.* June 1999; 48(6): 809-816.