

Is Vegetarianism Good for Health?

Introduction

Vegetarianism is becoming increasingly popular recently for multiple reasons such as health and animal warfare (Maurer, 2010). While health is turning into a popular topic, studies are being carried out to decide whether a vegetarian diet is healthy. Ruby (2012) pointed out that different perspectives were needed when thinking about this question. For instance, Awodu *et al.*, (2010) suggested that vegetarian diets could reduce the risk of circulatory system diseases, whereas Mangano and Tucker (2017) argued that these diets might also result in a lower bone mineral density (BMD). This wide range of perspectives people could take has led to a long-term debate about vegetarianism (Stephens, 2006), and it can cover many aspects such as: science, culture, health, history, and geography. I think a vegetarian diet is healthy if it is designed scientifically such that it contains balanced nutrients, and vegetarianism establishes a friendlier relationship towards animals, as well as the environment. There had been numerous scientific research about vegetarians: Tantamango-Bartley *et al.* (2012) examined over six thousand members that took part in the "Adventist Health Study-2" in order to find out the correlation between eating pattern and the risk of getting cancer. However, it is not possible for me to do so because these are long process and difficulties with permission. In the progress of writing this essay, both primary and secondary research had been carried out to further interpret the impacts vegetarianism cause on health, and it has been divided into two sections: literature review and data analysis. Then subheadings are divided based on different perspectives, after that are evaluation and conclusion at the end. This report would be helpful to those who want to know more about or become vegetarians.

Literature Review

--Why do people choose vegetarianism?

Vegetarianism is a life style that some people choose to live, and generally they cut meat out of their diets. There are different kinds of vegetarians, depending on whether they would avoid fish, eggs or dairy products. Surprisingly, data from Rozin et al., (1997) had shown that healthy vegetarians actually like meat to a similar extent as people in a normal diet. People become vegetarians for different reasons, which always appear in combination. Some choose to become vegetarians since they think keeping a vegetarian diet could indirectly help to prevent climate change, as animal products and meat consumptions have negative effects on the environment (Leitzmann, 2014). However, some people argue that the historical and social value of meat in culture would be missing in vegetarianism, and there are other methods to help reducing carbon emission, and meat is becoming a part of culture beyond nutrients intake (Macdiarmid, Douglas and Campbell, 2016). Some people care more about their own health or religion. Some animal-lovers are concerned about animal welfare and they choose to become a vegetarian. In addition, there are also debates about whether eating meat is healthy, and ethical questions about factory rising livestock. The animal rights have been a concern to some of the vegetarians (Mottet *et al.*, 2017).

Most vegetarians decided to choose this lifestyle on their own. However, many young children between 1-5 years old could become vegetarians due to their parents, who are vegetarians, and they would arrange the diets for their children. Sometimes, these children don't consider themselves as vegetarians. The parents need to think carefully about what should be included in the children's diets since a low-fibre diet is more suitable for an infant, and most children in growth need more protein and calcium in their diets. Ideally, the standards of nutrients can also be reached, breast milk and high protein food like tofu are suitable for infants and children (Mangels and Driggers, 2011). Generally, children that are vegetarians take in more fruit and fibre than non-vegetarian children, and the rate that they take in excess food is much lower than non-vegetarian children. There was a decline in children and young vegetarians getting obesity, as they have healthy eating habits more often than non-vegetarian children (Robinson-O'Brien *et al.*, 2009).

However, the energy and calcium intake amongst vegetarian children are lower than the standards (Choi *et al.*, 2011), this means some of the children might get malnutrition or hypoalimantation which means they would be unhealthy. Parents and families play a vital role in helping children develop eating habits, and plan their diets, which can lead a big impact on the health of the children.

--Advantages and Disadvantages

There is evidence in science aspects support vegetarianism. Research found out that vegetarian diets can help to reduce the risks of getting cancer, certain diseases (like those transmit by uncooked meat) (Whorton, 1994), and be beneficial to other health aspects, such as epidemiology, public health, and even evolution (Benzie and Wachtel-Galor, 2010). One of them is more related to mental health, since fibres and antioxidant phytochemicals are very abundant in vegetarian diets, and it has a high carbohydrate-to-protein ratio, it stimulates serotonin in the brain to be produced and boosts neurotransmitter action. This could help people stay in a relatively healthy mood condition (Johnston, 2017). On the other hand, considering physical health, data shows the risk that lacto-ovo vegetarians (vegetarian who eats both eggs and dairy products) getting cancer in gastrointestinal system is reduced compare to people with normal diets (Tantamango-Bartley *et al.*, 2012). This is mainly helped by the sifting of microbiota in the digestion system if people keep a vegetarian diet (Zimmer *et al.*, 2011). Studies carried out by Orlich and Fraser (2014) had also indicated keeping a vegetarian diet could lower the risk of getting diabetes mellitu, metabolic syndrome, and hypertension, which are closely related to eating patterns and nutrients intake. Another reason why vegetarian diets are popular in many countries is that they tend to include less cholesterol in the diets (Craig, 2009), so that the risk of getting diseases in circulatory system can be reduced as well (Awodu *et al.*, 2010). Circulatory disease is now a major cause of unnatural death in many MEDCs (more economically developed countries), and vegetarian diets could become a factor that help to reduce the disease and push the live expectancy up in some countries.

However, on the other hand, many people are against vegetarianism, and they think vegetarian diets can lead to many healthy problems, they highlighted many reasons to prove their statement. For example, increase the risk of lacking in

certain nutrients. This include some micronutrients like iron, zinc, vitamins B-12 and D, calcium, and even fatty acids (long-chain omega-3), as these nutrients are not as rich in a vegetarian diet (Craig, 2009). Some evidence suggest that vegetarian diets might be helpful in rheumatoid arthritis treatment (Müller, Wilhelmi de Toledo, 2001). However, another study has proved that, compared with normal diets, vegetarian diets have less calcium, vitamin D and other nutrients that can support bone health. As a result, the risk for a vegetarian to have a lower BMD (bone mineral density) is higher (Mangano and Tucker, 2017). In my point of view, vegetarians can pay more attention on food selection to avoid this from happening. Comparing different type of vegetarians, people with a vegan diet (avoid all the animal products) need to pay particular attention on their eating patterns, and it is harder for them to get a balanced diet (Marsh *et al.*, 2011). Researches illustrated that usually vegans have the lowest energy and protein intake amongst all types of vegetarians (Clarys *et al.*, 2014). The lack of certain nutrients may put some vegetarians in poorer health conditions with allergies, or bad mental health (Burkert *et al.*, 2014). Taking in less healthy vegetables can even increase the risk of getting coronary heart disease (Satija *et al.*, 2017). For those pregnant women that follow vegetarian diets generally have a higher rate of risk of getting nutritional deficiency disease (Hawk, Englehardt and Small, 2012), which can cause problems for the babies to grow. However, there are examples of scientific evidence which suggest that a well planed and balanced vegetarian diet is perfectly safe for both the mother and the child (Piccoli *et al.*, 2017), which highlighted the significance of planning a vegetarian diet.

Concluded from the evidence discussed above, vegetarianism is good for health when the diets are well planned, and the vegetarians can meet the standards of nutrients intake every day if they put efforts in selecting the things they need to include in their diets. However, it can be not as healthy as some vegetarians believed, and might lead to increase in the risks of getting some diseases when the person does not have a balanced diet. The reasons of vegetarians making decent decisions on their diets can depend on their cultural and educational backgrounds, the geographical locations they lived in, the historical events they have experienced, and also the political impacts which will be discussed later in this report.

In conclusion, the effects that vegetarian diets could bring to humans' mental and physical health were suggested by both evidence pros and cons.

Data Analysis

--Survey Data

In the survey there are 8.3% of the participants considered themselves as vegetarians for different kinds: Lacto-ovo-vegetarians (who would consume both eggs and dairy products), Pesce-vegetarians (who would consume fish), semi-vegetarians (who would consume vegetarian food, but will occasionally make exceptions), and Vegans (avoid all animal products). This result is relatively larger than the recent global data (about 4.0-5.0%), and this may be because of the effects of geographic location, as most of the submissions are from China and other Asia areas. The reasons these people become vegetarians are in combinations (Fig1.1), and more than 64.0% of them think vegetarian diets can help them stay healthy.

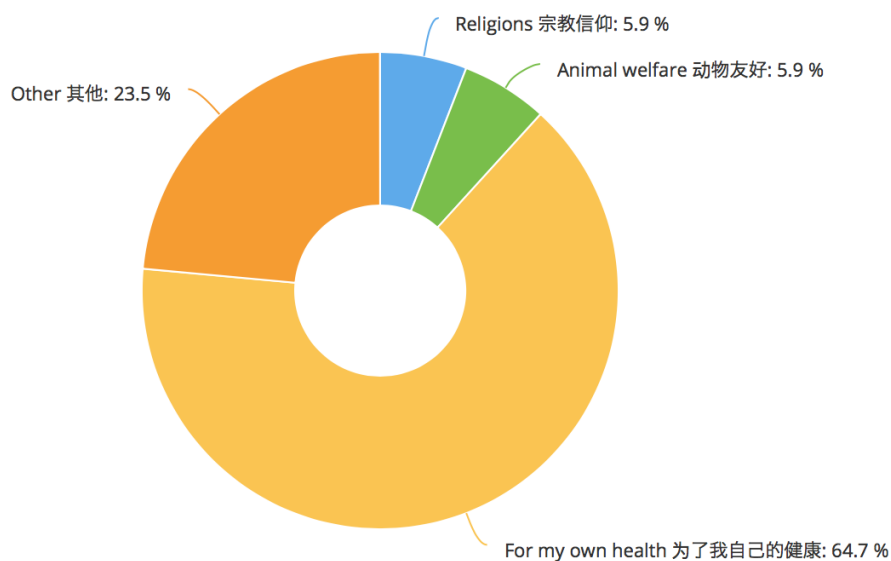


Fig1.1 The Reasons Why People Become Vegetarians.

6.0% vegetarians state that religion plays an important role in their vegetarianism lives the same proportion of those who are animal-lovers and keep vegetarians diets because of animal welfare. For those people that are not vegetarians 36.7% of them are willing to have a try themselves (Fig1.4), however, up to 73.0% of people will not recommend vegetarianism diet to others because they are not sure whether it is healthy no not (Fig1.2).

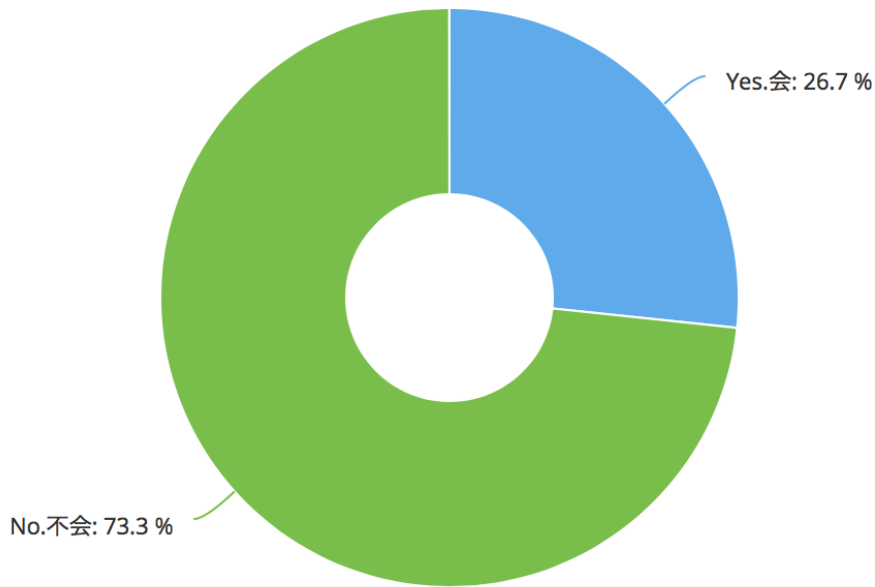


Fig1.2 Will You Recommend Vegetarianism to Others?

In total submissions, 65.0% people think a vegetarian diet is healthy, but the diet is hard to be balanced, so lack of nutrients sometimes could happen; 5.0% people consider it is healthy and can prevent heart diseases; 15.0% people think we cannot get enough nutrients and it is not healthy; and 5.0% people were not sure a vegetarian diet is healthy or not (Fig1.3).

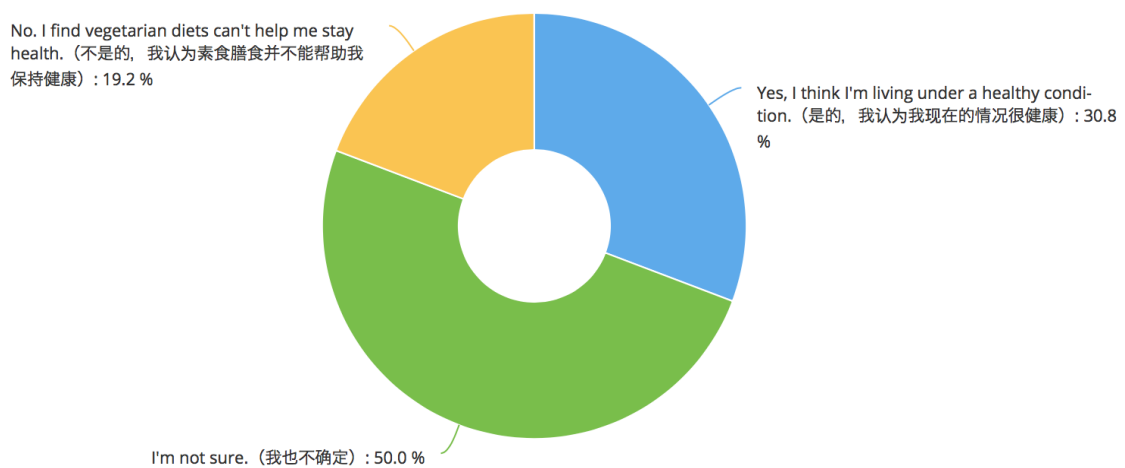


Fig1.3 Do You Think Vegetarianism Is Good for Health?

For those people who are vegetarians, 50.0% of them are not sure whether they are healthier after become a vegetarian or not, and only about 6.8% of them are happy with their vegetarian diets (Fig1.4).

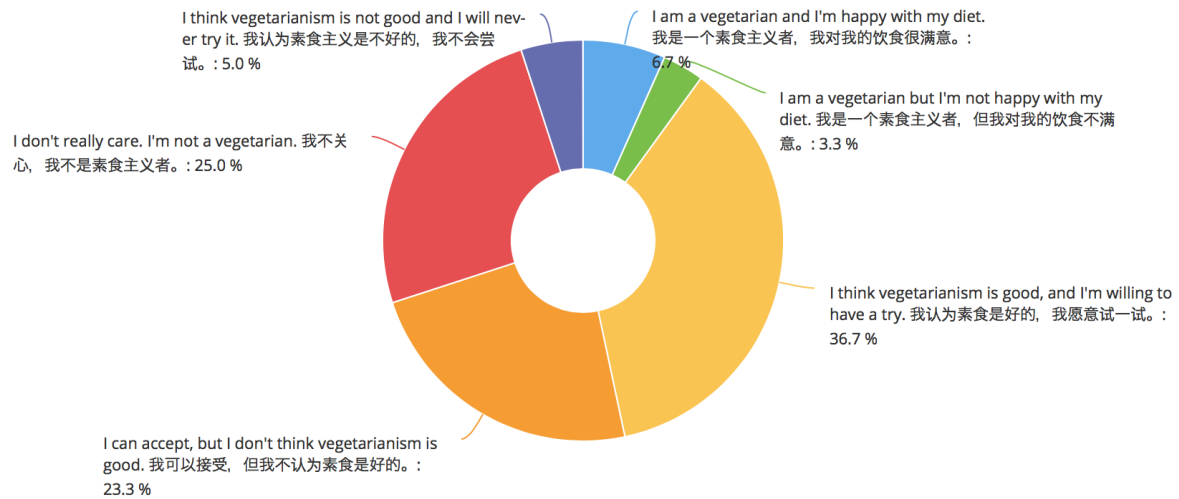


Fig1.4 People's Attitudes Towards Vegetarianism.

As a result, even for those who are keeping vegetarian diets, they still not sure what vegetarian diets will bring to our health. Because of lacking scientific knowledge and evidences to answer this question, the uncertainty and invalid information could spread amongst people, since there are websites and articles online make up information about vegetarianism, and some people spread the information through social media such as Facebook and Wechat the situation could become worse. To stop this from happening, large, government associated organizations can help post useful advices to vegetarians and the public using media, and this can also rise the importance of vegetarianism.

--Workshop

In order to further understand how vegetarians balance their diets, and how can they get all the nutrients and energy they need a workshop was designed by me. The students were asked to plan their own meal plans, and some of the groups did the vegetarian diets the other groups did the normal diets (Fig2.1). Different types of vegetarians are introduced and more than 40 dishes are provided for them to choose, this includes the nutrients and energy information in each of them (Fig2.2). They then designed a one-day-meal plan for an adult and calculated the energy in take in each meal. After that a debate was held on weather you think vegetarianism is good for us or not. Students gave different viewpoints in different perspectives.

In Dulwich College Shanghai 4 groups of people participated in this activities, and two groups of students designed meal plans for vegetarians. One group defined their meal plan as a fruitarian diet as in this meal plan only seeds, nuts, fruits, and some other parts of the plants are included. Surprisingly, the total energy they got was around 2000-2300 kcal which is about the standard energy an adult should take in in one day. The other group that chose to go with lacto-ovo-vegetarian had a similar result. Some participants are vegetarian themselves and by doing this activity they provided evidences that vegetarian can also have a healthy and balanced diets, but consideration about food is required in order to get the nutrients that cannot get from meat.

Meal Plan Design Worksheet

Instructions:

- Work in groups of 4 or 5 or 4.5
- **Decide which type of vegetarian you are**
- Use your menu sheet!!
- Choose the dishes for a person one day
- Write the number of unit in the "Quantity" box
- Calculate the Calorie of your meal plan and write them in the table

Your aim: The total energy of this meal plan should reach the standard energy that an adult takes in one day.

Time limit: **20MIN**

Energy take in (Calorie)	
Breakfast	
Snack (optional)	
Lunch	
Snack (optional)	
Dinner	
Supper (optional)	
Total	

At the end of this activity, your group will have a short oral presentation on your meal plan which is reported by one member within 1 min.

Group Name:

Fig2.1 Meal Plan Design Worksheet

PRODUCT	Unit	Calories (kcal)	Fats(g)	Sugar(g)	Protein(g)	Quantity
Apple Juice	80z	110	0	0	11	
Avocado	100g	160	14.7	0.7	2	
Bacon	100g	160	8.3	0.3	22	
Bamboo Shoots	1cup	41	0.5	4.5	3.9	
Banana	4.2ounce	90	0.3	12.3	1.1	
Beef Meatball	1ball	57	3.7	0.4	3.5	
Beer	120z	150	0	10	0	
Blueberry	1cup	85	0.5	15	1.1	
Bread	1slice 34g	80	0.5	5	4	
Broccoli	100g	34	0	2	3	
Butter	1 tbs	100	11	0	0	
Cabbage	100g	13	0.2	0	1.2	
Chicken	100g	298	18.6	0	21.9	
Chocolate chess pie	1slice	250	13	25	2.5	
Coffee	1cup	2	0	0.3	0.2	
Corn	100g	573	39	0	6.2	
Egg	1lowge	72	4.8	0.2	6.3	
Fish Sticks	6sticks	220	1	1	9	
Foie-gras	100g	250	24	0	7	
Green beens	100g	373	16	0	34.5	
Green pepper	100g	17	0.3	0	0.8	
Greens	100g	50	2.5	0	1.6	
Lamb	100g	250	18	0	21	
Marshroom	100g	129	3.4	0	15.2	
Milk	250ml	125	5	9	8	
Nuts	1pack	100	9	1	3	
Onion	1cup	64	0.2	6.8	1.8	
Orange Juice	1cup	112	0.5	20.8	1.7	
Pasta	0.8 cup	200	1	2	1	
Pomegranate	0.5cup	72	1	11.9	1.5	
Potato	1cup	324	2	3.2	7.2	
Radish	100g	20	0.3	0	1.6	
Rice	1cup	150	0	0.4	3	
Sausage	3links	250	24	0	7	
Shrimp	9shrimps	80	1	0	18	
Strawberry	1cup	49	0.5	7.4	1	
Tomato	1tomato	22	0.2	3.2	0	
Vegetable Oil	1 tbs	120	14	0	0	
Watermelon	1cup	46	0.2	9.5	0.9	
Wine	1cup	74	0	0	0.2	
Yogart	6oz	60	1.5	3	8	

Fig2.2 Dishes to Choose and Nutrients Data

--Interviews

Three interviews were held with interviewees who had different perspectives and altitudes towards vegetarianism to further interpret what vegetarianism effects our health.

Interviewee 1: HCR

Interviewee 2: DSH

Interviewee 3: MMS

HCR is a vegetarian from India who started to change her diet when growing up as a teenager. Her reasons to become a vegetarian is in a combination. Firstly, she thinks it is cruel to kill animals. Secondly, the idea about religions started to be clearer to her as she grew up. Thirdly, at that time, she started to learn science and consider a vegetarian diet is healthier than a normal one.

She pointed out that if compare the digestion systems of herbivore animals and carnivorous animals we would find out herbivores have very long systems and carnivorous have relatively short ones. That is because the meat that carnivorous eat secret toxins if stay inside the digestion system too long, and carnivorous manage to get rid off them quickly as long as they absorb the nutrients. Kramer and Bryant (1995) also indicate this idea through examination of the length of the intestines on different species of fish (Kramer and Bryant, 1995). Human's digestive systems are not like the carnivores' because they are not short. Quite the opposite, the human's digestion systems are relatively long, just like many herbivores. As a result, just like many scientists, HCR thinks human's digestion systems are designed to fit a vegetarian diet, as the vegetable is not like meat and can stay longer in our body without harming it.

The second interviewee DSH used to have a liver disease and the doctors told him cut meat out of his diet. He did this for months and he quit. However, after he read a book called *Orissor Is the Way for All* (1997) he made up his mind to keep the vegetarian diet. He believes every life appears to have a purpose. If people eat animals, the purposes for animals' lives would been cut down. He also implied this is not about religions, it is just a way of thinking. He thinks vegetarianism diet

helps him to keep fit, and he never worry about the lacking of nutrients or energy. He manages his own diets well everyday, and the canteen where he works offer him vegetarian meal plans. He indicated this is very common in the UK. Many people stronger than him also take these diets. What he believes is that the human body always convert the nutrients they need by themselves. This option of course is talking about the quick energy convert and use in our body, and it does not really have a connection with vegetarianism, but DSH's own words reflect his belief. For the reasons that people become vegetarians DSH suggested that some people become vegetarians for a combinations of reasons: health, animal-welfare, spiritual, or because their partner eats that way. Sometimes, it is difficult to pin it down to only one reason. As an animal-lover DSH said he looked himself differently in the mirror at the second year he became a vegetarian. Vegetarian's diet changed him. Once he saw the meat in the market, at one second he thought that was a human's leg, and from that moment on he knew he could not get back. He liked meat when he was young but he just cannot get back. "Think about those cows that used to produce milk." He implied, milk is taken away for the daily products, so the baby cows would have no milk to drink. Some advertisements have sliming cows on the milk bottles, but they are not actually happy, instead it's cruel and satirize. Starting from the idea of animal warfare, DSH had changed his eating pattern and developed the habits to live as a vegan, he enjoys and appreciates the process of changing, and have high satisfaction of his current situation.

Holding opposite view points, MMS is an international migrant from the U.K. who currently lives in China. He is a biologist, and he used to be a vegan. However, he decided to change back to normal diet after he moved to China. One big problem he faced was he could not find all the ingredients he needs to cook, as there are few shops special designed for vegans in China, and as an immigrant he thinks different languages is another tough barrier. He became a vegan because his used to have partner who was a vegan and he did this in order to gave his support. It is usually common that people influenced by the environment, families and friends, and change their eating patterns.

He highlighted that many vegetarians actually live on a terrible diet as they do not know how to balance it, and this can bring negative effects to their health, even worse, many vegetarians are not able to realize this and they just let the vicious

circle keeps on going. In addition, he pointed out nowadays there are many young children that are vegetarians because their parents help them to plan their diets and “decide their children will be vegetarians”. MMS think the children have their rights to choose whether they want to be a vegetarian or not when they are able to make their own decisions, and the parents cannot choose it for them. He indicated that certain nutrients that children need to support their body growth are hard to get from a vegan diet. Like the discussions earlier in the literature review, this is certainly an issue many people are debating, somehow is beyond the aspect of healthy and become an ethical issue.

MMS suggested religion and diets are personal things and so should not be recommended to other people unless they express a wish to try them. He was vegan for two years and he said he loved every minute of it. However, it is not something he would want to easily go back to as it requires a lot of money to get the good ingredients and supplements. Too reflect on MMS’s interview, humanity factors seem to affect the lives of vegetarians a lot, and indirectly cause different health conditions of vegetarians.

From these three interviews we can see from a geographical aspect, people from different countries have totally different ways of balancing their vegetarian diets, some of them may think it is an easy thing to do, but some of them may find it tough. This can depend on the cultural, agricultural, and religions a certain country has. For those countries that have large populations of citizens believe in certain strong religions that prompt vegetarianism appears to have a larger proportion of vegetarians. Agricultural also plays an important role in vegetarianism, and usually related to the climate a region has. Since high protein vegetable is a good choice for vegetarians to balance their meet-free diets, these vegetables tend to be more popular in vegetarians compare to other vegetables, and regions with intense agricultural of high protein vegetables sometimes have a greater rate of people being vegetarians, for example, India (Shridhar *et al.*, 2014).

The proportion of vegetarianism population and their health conditions can be effected by humanity and geographic factors. Vegetarianism draws a very clear pattern based on geographic locations. As in some Asia regions that close to the equator, they have warm climate and religions that introduce ideas of animal warfare tend to have more matured service system particularly aim for

vegetarians. This provides vegetarians with convenience accesses to the food they want so they can help themselves. By contrast, the climate further north is colder and drier, and people would need a certain level of fats intake that usually in a greater amount and requires intake of animal products and meat for insulation and energy convert in the bodies. Generally, the services for vegetarians-only in the north are less than in south.

Other humanity factor like gender differences can also cause unequal treatments among vegetarians. Data shows male vegetarians tend to have more supports form family and friends, while female vegetarians need to encounter more hostility than males, which would make their life difficult (Merriman, 2010). Sexual discrimination can be a stumbling block for some vegetarians to stay healthy and keep balanced diets in some regions, but overall the discrimination takes a favorable turn.

From a political view, which is another humanity factor, there are very rare country that are promoting vegetarianism (EURSAFE 2006 6th Congress of the European Society for Agricultural and Food Ethics, 2006). In China, there are not enough restaurants and survives provide vegetarian meal plans and ingredients so that this creates inconvenient situations for the vegetarians to stay healthy.(citation*) Political always goes with history, and looking back the history, there are vegetarianism activity that go along with the political changes, and venetians want to draw benefits form that. The example would be the American vegetarians' movements during the Civil War. Shprintzen (2015) suggest that "Through the Civil War, the vegetarian movement focused on social and political reform (Shprintzen, 2015)." The government could pay more attention on the importance of vegetarianism, and the services provided for the venetians could be improved because of that.

To draw the conclusion, since the study of vegetarianism start form an early stage, and people are still keeping on research this topic, there are perspectives that across subjects and fields. The perspectives can be vegetarians' health with science, cultural, historical, geographical, religions, gender, and political ethics. Viewing only one perspective cannot interpret whether vegetarianism is healthy or not, different aspects should be considered, because there are massive factors that can effect vegetarians' health conditions.

Evaluation

The methodology includes analysis of both qualitative and quantitative data using desk research and primary research. Through desk research I read many journals that have ideas and perspectives I did not thought before, I used them to criticise my own writing and built the argument step by step. For example, the factors like historical events and migration that effect the spread of vegetarianism. Further more, reflections are always needed when writing, and this means go back refill and repair the gaps by looking through journals that fit my articles, and combine the statements to my own options.

I tried different methods to gather primary information. My survey and interviews started at the same time so that I can justify them when I received the feedback. I changed and added questions when doing the interviews in order to see more view points from people from different countries and with backgrounds. The survey result I got at last have a bias on the sex ratio, and this might lead to negative effects on the accuracy of data.

Critical thinking requires knowledge from many perspectives to build up a whole image. As the exploring of the initial question still continues in aspects, there is no answer for it. My initial view points on vegetarianism and health were slightly changed after I did my research, which was first started from one focus point and building up step by step. I thought vegetarian diets would be healthy when we balance the diets and take in the standard nutrients the body needs every day. However, I did not think about geographic locations and other humanity factors can effect on vegetarianism so that it might be more difficult for some vegetarians to have a balanced diet in one place than another before the interviews. The interviews gave the opportunity to interact with the vegetarians and listen to their experiences.

Many recent published journals were cited since they are more valid, and the information, data and research are updating quickly, but some old ones were used as well, because they were either classic or historical and cited by many people,

so that the information they provide is well-founded, for instance, the experiment held by Kramer and Bryant (1995). Most of the recourses were found online, although some journals have already criticized by the authors, the bias and invalid information still present. One benefit of doing desk research online directly is this can bring wide range of perspectives of journals about vegetarianism, which guide the way of how should the further research pointing towards. Many authors spilt vegetarianism and health into focus subtitles when writing the journals, which are specific and clear defined, for example, Mangels and Driggers (2011) focus on the nutrients intake for infant and children.

The scientific evidences written in the literature review are all very general, some of them have brief explanations, but some of them don't. The idea is to give the audients information from different perspectives about vegetarianism, not focus on specific evidences, so that a whole story can be presented. The perspectives that discussed above are examples, and certainly there are other factors that effect the vegetarians' health haven't been mentioned in this essay.

The primary sources are valid as they were directly taken form people with different backgrounds by interviews. Since the whole sample number is small, the cases may not show the general view points of the society, however, in this research, individual perspectives are significant, and analysis attaches importance to each separate case.

Conclusion

In conclusion of both desk research and primary research. Vegetarians appear in combination reasons such as: religion, health, and animal welfare. Different kinds of vegetarians include or avoid fish, eggs or dairy products in their diets. There are scientific evidences support and against vegetarianism on both sides. Vegetarian diets can bring benefits to our physical and mental health. This include reduce the risk of getting cancer, circulatory system diseases (Awodu *et al.*, 2010), diabetes mellitu, metabolic syndrome, hypertension (Orlich and Fraser, 2014), and help people stay in a relatively healthy mood condition (Johnston, 2017). The lengths of digestive systems can also imply vegetarianism diets are suitable for human, since there are similarities between human and herbivores (Kramer and Bryant, 1995). However, when nutrients intake is not balanced, they can cause health problems as well, nutritional deficiency disease (Hawk, Englehardt and Small, 2012), and the risk of getting lower BMD (bone mineral density) (Mangano and Tucker, 2017) are in highlights. In general, vegetarianism is good for health in the extend of well balanced diets.

Primary data indicated many people are lack of knowledge about vegetarianism, and not sure whether vegetarian diets are healthy. The workshop provided evidences that vegetarians, even fruitarians, can also have healthy and balanced diets. Interviews with people come from different countries with different backgrounds implied that the factors that effect the health of vegetarians can be both humanity and physical, such as, political, gender, historical, and geographical. Places like India, which has suitable climate and agricultural for vegetarianism would provide more conveniences to vegetarians to help them stay healthy (Shridhar *et al.*, 2014). These factors can effect the health of vegetarians in certain regions, and it is important for people who want to become vegetarians consider all these factors, since changing a lifestyle or a way of thinking is difficult, but if the management is appropriate a good habit can be developed.

