Are you willing to save the world and convert to be a vegetarian?

The man-made global warming agenda propagates the necessity for the world to be on plant-based diets. A point of view from nutritional sciences focuses mainly on children's health.

Middle of August 2019, “Nature” published a note entitled “Eat less meat: UN climate-change panel tackles diets” (1). “Nature” together with “Science” are two leading scientific magazines. Their objective, among others, is to support global politics. Nature is published in England and Science in the USA. The short publication in Nature endorses the agenda of the Intergovernmental Panel on Climate Change (IPCC) in writing: Global warming “will fail significantly short without drastic changes in global land use, agriculture and human diets”. The text continued by citing a special report of the IPCC, which “describes plant-based diets as a major opportunity for mitigating and adapting to climate change - and includes a policy recommendation to reduce meat consumption”.

Plant-based diets and man-made global warming

Other “high ranking” scientific journals, such as Lancet, follows suit. Lancet provides scientific activists a platform propagating global behavioral changes. Some time ago, supporting the UN Sustainable Development Goals (SDGs) and the fight against non-communicable diseases (NCDs), a paper was published suggesting increasing marking prices for “harmful” food and drinks (2). Lancet jumped on the bandwagon of “global warming” in a similar attempt. A paper of forty-five pages entitled “Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems”, intends to be at the forefront of a campaign propagating what humankind in the future had to eat and how to behave, and laments that “food systems (having) the potential to nurture human health and support environmental sustainability, however, they are currently threatening both” (3).

Obviously, around 2018/19, a significant movement was kicked off to attack meat consumption. For instance, Nutrition Review published a paper about “Plant-based diets for children as a means of improving cardiometabolic health” (4), and a text in Science read “Reducing food’s environmental impacts through producers and consumers” (5). The initiative so far failed to produce the desired impact since the Covid-19 pandemic required major attention starting in 2020. Interest in the virus probably will fade away soon, and the issue of global warming will emerge again (if the Ukrainian war will not ultimately terminate the Anthropocene period entirely).

Vegetarianism contradicts the carbohydrate-insulin model (CIM)

Whether one believes in man-made global warming or not, drastic actions to influence nutrition and what we eat should be stopped based on a controversial struggle of ideologies. The pros and cons of diets diverting from a balanced intake of nutrients should be subject to scientific investigations. The results should be analyzed and interpreted in the light of biology, physiology, nutritional sciences, medicine, and public health. The UN initiative uses “plant-based diets” and avoids addressing “vegetarianism”. A plant-based diet consists of a fair amount of carbohydrates to cover the required calory content to maintain health and be active. The advocates oppose such

a diet supporting a high protein diet on the ground of the carbohydrate-insulin model (CIM). While it is necessary to discuss the protentional harmful effect of the "devilish carb" crusade, likewise plant-based diets, or better to name it correctly "vegetarianism", needs to be looked at in the light of nutritional sciences, and public health, detached from sociopolitical aspects.

History and vegetarianism in Australia

Meat-free lifestyles are associated with many religious beliefs in Asia and the middle east. More often than other countries, India is thought to incorporate veganism as a national characteristic, where the diet has been known since the 5th century BCE. The diet can be traced back for thousands of years but became better known in England only around the middle of the 19th century. An exciting example about veganism in a modern "western" society was surveyed by an institution in Australia. A steady proliferation of veganism from 2012 to 2016 was registered. Those admitting that the "food I eat" is all, or "almost all vegetarian", increased from 9.5% to 12.4% of the population in the state of New South Wales (that's the state Sydney is located). Those on a vegetarian diet mainly live in the capital city. Among specific fractions of the population, the proportion of vegans is relatively high, such as the "MetroTech's" with 18.2% and the "Aspirational" with 13.1%. The first group includes highly educated, socially aware, hardworking, ambitious, and culturally diverse singles. The second group is ambitious, culturally diverse, and young singles, classified as "up and coming" and committed to creating a successful future. All in all, however, veganism is "not halting the march of obesity".

From vegans to semi-vegetarians

There are smooth transitions from strict vegans to those not that strict in following their plant-based diets. Total vegetarians reject red meat, fish, poultry, dairy, and eggs, while lacto-ovo-vegetarians consume milk and eggs. Pesco-vegetarians allow animal-protein fish in together with eggs. Semi-vegetarians differ from non-vegetarians in that they eat red meat, poultry, and fish less than once a week (6).

Reasons to shift to a vegetarian diet

Besides religious beliefs and ideological inspirations, several additional reasons to resort to a vegetarian diet. Being aware of cruelty against animals and fear of hormones and antibiotics in the meat of animals are strong motivations to become a vegetarian. Findings that vegetarian diets are healthy and prevent non-communicable diseases are strong arguments to follow a vegetarian dietary regime.

A recent meta-analysis identified several positive health aspects in vegetarians and vegans compared to "omnivores". BMI levels and total cholesterol, LDL cholesterol, and glucose levels were lower for vegetarians. Also, the risk for the incidence and mortality from ischemic heart disease incidence of cancer was reduced. However, total cardiovascular and cerebrovascular disease and all-cause mortality and mortality from cancer could not be associated with vegetarians compared to omnivores (7). A paper from England presents an example that vegetarians and vegans should have a good understanding of nutrition and especially about essential vitamins and minerals. A large cohort study showed that bone fracture risk, compared

with those on “omnivore diets”, was higher for vegetarians due to considerably lower calcium intake of the latter (8).

Pros and cons of vegetarianism for children

While adults can choose to be vegetarian or not, children are generally exposed to the decisions of parents and caregivers for what diets they share with the family. The effect of vegan diets on children's health is not very well known (9). Relevant studies are rare and of questionable quality. Diets are defined differently from study to study, and no control group is often selected. Some nutritional associations see health benefits for children if “appropriately” planned. That applies to the UK and the US, while the Belgian Royal Academy of Medicine doesn’t recommend vegan diets and the Polish Academy of Science oppose vegetarian diets.

The Polish study about children on a vegetarian diet

With a carefully conducted study from Poland, published recently in the American Journal of Clinical Nutrition, aspects about the pros and cons of vegetarian and vegan diets for children are given (10). The Children’s Memorial Health Institute in Warsaw studied five to ten years old healthy children between 2014 and 2016. Of 187 children, 63 were on a vegetarian diet, 52 on a vegan one, and the results obtained from both groups were compared with those from 72 omnivores. The children stuck to the diets at least for one year, but a high proportion of children on the vegetarian and vegan diet did follow the regimes longer than that. Whoever intends to embark on one or the other aspects of vegetarians’ diet should read the publication from Desmond et al. (2021) in length to find valuable hints about the methodology and the benefits and drawbacks in conducting such studies. To review even the most important aspects of the paper in length will be beyond the scope of this blog.

The most relevant results of the study were that children on vegan diets are, on average shorter than their counterparts. The bone mineral content of the vegetarian and vegan group children was lower than the “omnivores” children, and the micronutrient status was also “negatively affected” for those on the plant-based diet. Yet, compared to omnivores, children on vegan diets had “healthier” cardiovascular profile and less body fat”. Why the vegetarians' cardiovascular risk profile was not as good as for the vegans was an unexpected result and needed further exploration.

Outlook

The Polish study should stimulate more investigations about vegetarianism, especially in countries outside the western dominated world. The attempt to impose controversial ideologies such as man-made climate change started to invade elementary individual behavior patterns such as propagating plant-based diets. Governments all over the world are politically pushed to follow climate change agendas. Micronutrient deficiencies remain one of the worldwide nutritional problems. The Polish study found some insufficiencies in B12 and folate intake. The body iron status, especially for the children in the vegan group, was also altered. Deficiencies detected while on a diet in eastern Europe might be different or even aggravated in the middle- and low-income countries. Iron deficiency is only one of the everlasting problems for children connected

with parasitic infections and women in the reproductive age and being pregnant and lactating. Investigations like the one reviewed here are necessary to recognize nutritional problems inaugurated by controversial political agendas.

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Frank P. Schelp is responsible for the content of the manuscript, and points of view expressed might not reflect the stance and policy of the Faculty of Public Health, Khon Kaen University, Thailand

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