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EDITORIAL

The whole-food plant-based diet: what does it entail and what lessons can it offer South African dietitians?

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The global population continues to grow and unfortunately in a response to this, the food environment has changed dramatically. This change has primarily brought about an increase in the affordability, availability and acceptability of many ultra-processed foods. Research has shown that the global obesity and non-communicable disease (NCD) pandemic can be linked to the frequent consumption of these highly processed foods, mainly due to their energy, saturated fat, sugar and/or salt content.[1] As a result, the movement towards a diet consisting of mainly whole – and minimally processed foods – is now being motivated. Avoidance of ultra-processed foods is also the main focus of many Latin American countries' newly released national food-based dietary guidelines.[2]

At the same time, our planet is also undergoing an environmental sustainability crisis highlighting the importance of sustainable food systems due to the environmental costs of food production, processing and consumption. The current obesity and NCD pandemic and the need for sustainable food systems have led many to ask "what is the best diet for my health and for the planet"?

Plant-based dietary patterns are becoming increasingly popular due to a variety of reported health benefits.[3] A growing body of literature also suggests that shifting towards a more plant-based diet may be one of the most effective actions that an individual can adopt to reduce the negative impacts on the environment.[4] The movement towards plant-based eating has brought about new dietary trends, such as semi-vegetarians or flexitarians who occasionally consume meat and poultry and climaterians whose food choices are based on the carbon footprint of foods. Whole vegetable and fruit intake of some South Africans in urban and rural areas is, however, extremely low.[5] The increased awareness of and requests for plant-based foods have brought about an assortment of processed plant-based food products, such as plant-based boerewors, hamburgers, fish-style fillets and a variety of "milk" products. Other processed plant-based foods include food products generally classified as unhealthy such as refined grains, potato chips and certain foods and beverages high in added sugar. Nowadays, consumers following a plant-based diet have a wide variety of processed plant-based food products available to choose from; but, the impact on the environment with regard to production, processing, packaging and water use is questionable. The majority of these processed plant-based food products are also classified as ultra-processed foods, making the health benefits of these products uncertain.[6] In order to achieve the possible health benefits of plant-based eating and to limit the impact on the environment, emphasis should be placed on whole-food choices.

A whole-food plant-based (WFPB) diet refers to a diet consisting of mainly plant-based foods that are unprocessed and/or minimally processed. Minimally processed foods are foods that are altered by industrial processes such as removal of inedible or unwanted parts, drying, crushing, grinding, fractioning, roasting, boiling, pasteurisation, refrigeration, freezing, placing in containers and packaging.[1] Plant-based diets are defined as those diets for which plant foods (including wholegrains, fruit, vegetables, legumes, nuts and seeds) form the "base" of the meal, with the inclusion of moderate amounts or no animal foods (including meats, fish, seafood, dairy, eggs, honey and insects). Therefore, a plant-based diet is not always linked to a vegetarian or vegan diet as moderate amounts of animal foods can be included.[6] Plant-based eating can be achieved through a variety of dietary patterns, including a vegan diet, the various types of vegetarian diets and even the Mediterranean- and Dietary Approaches to Stop Hypertension (DASH) diet.

The benefits of using a WFPB diet in the prevention and treatment of NCDs have been emphasised by many international studies due to the low fat and cholesterol and high-fibre content of the diet.[7] A well-balanced plant-based diet is also low in saturated fat and includes only unsaturated plant oils. A systematic review and meta-analysis of observational studies conducted by Dinu and colleagues[8] set out to explore the association between vegetarian and vegan diets and NCDs. Several benefits with vegetarian and vegan diets were reported, which included lower rates of ischemic heart diseases, cerebrovascular diseases, cancer mortality, breast cancer incidence, breast cancer mortality, colorectal cancer mortality, prostate cancer mortality and lung cancer mortality. Interestingly, it was reported that a vegan diet lifestyle compared to an omnivorous lifestyle was not associated with improved all-cause mortality or cancer incidence. It is important to note that research has indicated that individuals who follow a vegetarian or vegan diet have more nutrition knowledge[9] and are predominantly young female adults who are mainly educated, physically active non-smokers.[10] The majority of the studies included in the systematic review controlled for these variables, but, it is difficult to separate the effect of the diets followed by the individuals and the health-promoting behaviours of the individuals included in this systematic review. Therefore, the health differences noted in this systematic review cannot solely be attributed to the diets.

Most nutrients are abundantly available in plant-based diets. However, by avoiding all or minimising the consumption of animal-derived foods some nutrient needs, such as calcium, omega-3 fatty acids and vitamin D, may not be met. The EAT-Lancet Commission brings together a healthy reference diet for sustainable food systems. Willet and other Commissioners defined this diet as a diet largely consisting of vegetables, fruit, whole grains, legumes, nuts and unsaturated oils, with low-to-moderate amounts of seafood and poultry and no or

low amounts of red meat, processed meat, added sugar, refined grains, and starchy vegetables.[4] This is also called the Planetary Health diet and is primarily a WFPB diet with more focus placed on the types of animal products and vegetables included in the diet. Willet and colleagues[4] claim that the adoption of this dietary approach will provide major health benefits, including a large reduction in total mortality. In addition, the small quantities of animal-based products included will take care of the potential limiting nutrients namely, calcium, vitamins B12 and D, as well as omega-3 fatty acids.[4]

In South Africa, we have shown that the nutrition transition is rapidly continuing in urban and rural communities.[11] The need to return to traditional dietary patterns or to explore the benefits of new dietary patterns is therefore warranted. Dietitians are on the front-line of food and nutrition recommendations and it is their responsibility to promote the health of their patients, the public whom they serve, and the planet. It is therefore crucial that dietitians stay up to date with the newest scientific evidence.[12] In the article of Janse van Rensburg and Wiles[13] in this issue of the SAJCN, the authors set out to explore whether dietitians would use a WFPB diet to address NCDs. It was reported that dietitians agreed that the WFPB diet is associated with health benefits. The majority of the sample dietitians included in the study were familiar with a vegan diet, but only half were familiar with the term WFPB diet. What is worrisome is that three-quarters of the sampled dietitians felt they did not receive sufficient training on a WFPB diet at university level. Plant-based eating has, however, only recently become more popular and, as previously mentioned, many new forms of plant-based eating, such as the flexitarian, climaterian and Planetary Health diet, have only lately come to light. The findings of Janse van Rensburg and Wiles[13] emphasise the importance of life-long learning in the dietetic profession. Continued professional development (CPD) activities are therefore crucial for dietitians to stay up to date with the newest scientific literature and dietary trends. If dietitians want to stay at the forefront of nutrition education and recommendations, CPD activities that update and develop knowledge, skills and ethical attitudes that underpin competent practice are essential. We have shown that the majority of dietitians depend on journal articles to update their knowledge.[14] The need to update knowledge through journal articles has also further increased due to the current COVID-19 pandemic.

The various new diet trends and the findings of Janse van Rensburg and Wiles[13] highlight the importance of CPD activities for dietitians.[13] We therefore suggest that dietitians and CPD service providers collaborate when articles offered as a CPD activity are identified. A journal such as the SAJCN could play a significant role in meeting the needs of dietitians in this regard.

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