

Letter to the Editor

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Dietary patterns and sociodemographic factors: considerations for nutrition research

Madam

The recent article you published on the associations between dietary patterns and risk factors of non-communicable diseases by Markussen *et al.* is timely, considering the current trend towards focusing on foods and dietary patterns rather than specific nutrient intakes⁽¹⁾. The authors reported that dietary patterns which more closely adhere to dietary recommendations are associated with healthier lifestyles. Similar associations have been found in other study populations, which suggests that, regardless of the cultural differences in foodways, dietary patterns, in addition to individual nutrients, are worth our consideration when making nutritional recommendations.

The 'Prudent' and 'Western' dietary patterns identified in Norwegian women by Markussen *et al.* have been recognized as distinct patterns in several other populations as well^(2,3). The 'Prudent' pattern, which most closely resembles nutrition guidelines for health with its high intakes of plant-based foods and low intakes of processed foods, saturated and *trans*-fats, and refined carbohydrates, is linked to fewer chronic disease health risks than the 'Western' pattern⁽¹⁾. And the 'Western' pattern, characterized by high intakes of refined grains, sugar, and total and saturated fat, is associated with such disease risk factors as hypertension, dyslipidaemia, smoking and physical inactivity, and disease outcomes including colorectal cancer, CVD and all-cause mortality⁽¹⁻³⁾. These findings indicate that dietary patterns may serve as a proxy for disease risk.

Dietary patterns may also provide a better foundation for nutrition promotion among populations than a focus on single nutrients. Given that health and nutrition literacy is often low in populations, advising people to consume certain foods and nutrients while avoiding others can be both confusing and contradictory^(4,5). Moreover, a nutrient focus allows food manufacturers to take advantage of low nutrition literacy and advertise non-nutritious foods as healthy options⁽⁶⁾. A breakfast cereal made from sweetened, refined grains is not inherently nutritious, for example, but it may seem nutritious to the average person if it is advertised as containing essential vitamins and minerals. From a health promotion perspective, focusing on dietary patterns may be an effective and appropriate strategy to create nutrition guidelines that are practical for use by the general public.

When considering dietary patterns and their place in health promotion initiatives, the social determinants of

health, and socio-economic status (SES) in particular, must also have a prominent role at the planning and decision-making table. In their study Markussen *et al.* measured education and its association with adherence to dietary patterns⁽¹⁾. However, education alone does not provide us with the full picture of SES and its relationship to diet. Both income and occupation are important proxies of SES, in addition to education, and provide us with valuable information to inform public health decision making. Future research should consider a broader definition of SES, and measure it accordingly, as well as other social determinants of health.

Examining how social determinants impact dietary behaviours is a vital component in understanding observed associations between sub-populations and dietary patterns. Physical environment, for example, can influence food choice and purchasing behaviours⁽⁷⁾. If a variety of fruits and vegetables, key components of the healthy 'Prudent' pattern, are unavailable in a region, people will be limited in their ability to consume a 'Prudent' diet. Similarly, income – a proxy measure of SES – determines what foods can be purchased. Generally speaking, healthier foods tend to be more expensive and are therefore less accessible to lower-income groups^(8,9). The influence of social determinants of health on diet can extend beyond access to food. Race and ethnicity are also determinants of dietary habits⁽¹⁰⁾. Food and foodways are fundamental to a person's culture, which may or may not support a 'Prudent' dietary pattern.

There is an obvious shift away from a nutrient-focused approach to nutrition guidelines to the broader focus on dietary patterns. This new mentality is well supported by recent research which suggests a strong link between dietary patterns and chronic disease and their risk factors^(2,3,6). Furthermore, this common-sense approach is practical when considering the nutrition literacy of individuals. However, if dietary patterns continue to be researched for the purpose of creating nutrition guidelines, this should be done in parallel with research on the social determinants of dietary patterns. What we learn can, and should, be used to inform public health decision making and action.

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