South African Journal of Clinical Nutrition 2023; 36(1):i–ii
https://doi.org/10.1080/16070658.2023.2187545

SAJCN
ISSN 1607-0658 EISSN 2221-1268

EDITORIAL

The complexity of choosing healthy diets

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The importance of healthy diets and children's right to adequate nutrition are embedded in the UNICEF Nutrition Strategy 2020–2030.[1] Whereas the first 1 000 days are the most critical period for a child's cognitive and physical development, the period from age 5 to 19 years (middle childhood and adolescence) is recognised as an important opportunity for catch-up growth, psychosocial development, and establishing lifelong dietary and lifestyle habits.[2] Although children start to take some responsibility for their own food choices during this latter period,[1] they are still dependent on food provided by their caregivers due to lack of, or limited, autonomy. Children's food consumption and behaviour have been shown to be strongly related to the food consumption behaviour,[3] priorities[4] and consumer attitudes[5] of their parents or caregivers. In a qualitative study in Soweto, caregivers were reported to have the strongest influence on adolescents' eating practices.[4]

Various barriers may prevent parents from providing children with a healthy diet, even if they have a positive attitude towards healthy food. A qualitative study in a culturally diverse and deprived population in the UK showed that despite parents being aware of the importance of healthy diets, providing their children with a healthy diet was challenging due to lack of time to prepare healthy meals, as well as the wide availability of cheap, convenient and unhealthy processed foods in the local community.[6] In a study in seven European countries, attitudes of the parents were shown to be associated with the nutritional quality of their children's diet, as well as with their own level of education.[5] It is therefore important to gain insight not only into parents' attitudes to healthy diets for children, but also regarding factors associated with their attitudes and practices.

Hansen *et al.*[7] previously described breakfast and school lunchboxes provided to grade 1–3 children attending quintile 5 schools in Bloemfontein. Although caregivers had positive attitudes towards providing healthy foods, this was not reflected in the foods provided for breakfast or included in the lunchbox. Sociodemographic factors associated with the caregivers' attitudes are described by Hansen *et al.*[8] in the article published in this issue of the SAJCN. It should be noted that although the authors refer to sociodemographic variables affecting or impacting attitudes, causality cannot be inferred because of the cross-sectional nature of the data. Also, statistical analyses were restricted to bivariable analysis comparing groups. No multivariable analyses were done to determine associations, which is a limitation of the study. It is important to understand factors associated with food choices and food behaviour attitudes as this may inform interventions on healthy eating,[5,9] but robust data on the associations as well as attitudes are needed.

Attitude is a difficult construct to measure, and a clear definition of attitude within the context of the research question is needed to develop appropriate measurement tools.[10] When assessing attitude related to a specific behaviour (such as providing healthy foods for breakfast and the lunchbox), the attitude items in the measurement tool should be specific for the behaviour of interest.[10] Hansen *et al.*[8] assessed caregivers' attitudes by means of eight questions related to a healthy breakfast and seven questions related to a healthy lunchbox, which were each rated using a six-point hedonic scale. Eating habits are influenced by daily living conditions and social inequalities,[11] and the results reported by Hansen *et al.*[8] should be interpreted within the context of quintile 5 schools. In South Africa, public schools are categorised in quintiles based on the relative wealth of their surrounding communities. Quintile 1 schools are located in the poorest communities and quintile 5 schools in the wealthiest communities.

As was shown by Hansen et al.,[8] positive attitudes do not necessarily translate into healthy behaviours. Similarly, an ethnographic study showed that participants' positive attitudes towards sustainable foods were not reflected in their behaviour because of, among other factors, household realities and personal factors such as preference and traditions.[12] Wrottesley *et al.*[4] also reported that basic understanding of healthy eating does not necessarily translate into healthy eating behaviours. The lack of a behaviour being implemented despite a positive attitude towards the specific behaviour is referred to as the attitude–behaviour gap.[12] In their paper, Hansen *et al.*[8] state that provision of less healthy breakfast and lunchbox foods may be due to a nutritional knowledge gap, and they argue that interventions should focus on improving the nutritional knowledge of both the children and their caregivers

However, eating behaviour is not necessarily driven by the health aspect of foods. A study among undergraduate students in the USA for example reported that taste, but not the nutritional content of foods or beliefs concerning the healthiness of a food, was associated with food choice.[13] Also, in a UK study, parents were aware of the importance of healthy diets, but acknowledged that household food practices are influenced by traditional and cultural beliefs as well as past childhood experiences.[6] In any given situation, but more so in low- and middle-income countries, a combination of various contextual factors affects food choice to varying degrees, ranging from factors over which the individual has little or no control, to those for which they have greater decision-making power. Because food choices are made within a specific context in a given decision-making moment, it has been argued that food choice is not based solely on a binary decision of 'healthy' or 'not healthy'.[14] Interventions targeting individual-level factors only may result in modest short-term improvements in

knowledge and awareness, but most likely will not reduce inequities in healthy eating.[11] Because of the complex and multifactorial nature of food choice,[9] changing food choice and consumption patterns is more complex than merely changing individual values, knowledge and attitudes.[12]

According to the proposed framework by Chen and Antonelli,[9] food choice is influenced by (i) internal-food related factors, which refer to the sensory and perceptual features of food; (ii) external-food related factors, which include information on food, the social environment and the physical environment (food environment); (iii) personal factors (biological physiological, psychological); (iv) cognitive factors, which include among others knowledge and attitudes; and (v) societal factors that relate to culture, economic variables and political elements. Dover and Lambert[14] highlighted the importance of considering individual, household and community factors that influence food choice, as well as the influence of social, environmental, political and economic factors.

It has been suggested that future policy and population-level interventions need to be more comprehensive and have a systems-level approach to address poverty-related barriers to healthy eating, which includes providing secure safety-net programmes that address employment opportunities, housing stability and food security, as well as providing resources to address mental health.[15] It has also been recognised that although interventions that address daily living conditions and the local settings in which people live may to some extent promote healthy eating among disadvantaged groups, more needs to be done at the socioeconomic and sociocultural levels to improve diet and nutrition.[11] According to the UNICEF Nutrition Strategy 2020–2030, a systems approach is needed that captures interactions and interconnections across five systems (food, health, water and sanitation, education, and social protection) with the greatest potential to impact on nutrition.[1]

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Received: 02-01-2022 Accepted: 01-03-2023