

Testing of developed Food Based Dietary Guidelines for the elderly in South Africa

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The purpose of this paper is to describe the process of the testing of the Elderly Food Based Dietary Guidelines (EFBDGs). Following a literature review, stakeholder discussions and revision, preliminary English EFBDGs were proposed and circulated to an expert panel for input. The developed EFBDGs are based on the existing FBDGs which were revised in 2012 and adapted for older people following the Food and Agricultural Organisation/World Health Organisation (FAO/WHO) guidelines. Minor corrections were received and incorporated, after which the guidelines were tested for comprehension, appropriateness and applicability in consumer groups.

A qualitative design was followed with focus group discussions. Firstly, the English EFBDGs were tested with IsiZulu, Afrikaans, IsiXhosa, English and Sesotho speaking elderly aged 60 years and older in KwaZulu-Natal, Gauteng, Eastern Cape and Free State provinces, respectively. Thereafter, they were adapted and translated into IsiZulu, Afrikaans, IsiXhosa and Sesotho. Secondly, the adapted and translated EFBDGs were tested in the mentioned ethnic groups.

In general, as expected, the results of the tests showed that the English speaking elderly responded better to the English guidelines than the other ethnic groups. The feedback in respect of the tested translated guidelines was more positive indicating a better understanding of the EFBDGs by the various ethnic groups. This is because, not only were the English guidelines translated, but they were also adapted and words were contextualised according to the day-to-day language use of the groups.

It was recommended that the guidelines be incorporated into the Integrated Nutrition Programme for the purpose of nutrition education as well as a guide for food service institutions serving the elderly. Also, it was recommended that the development of support material for health professionals and the wider community be undertaken and the material translated into all the official languages. Future strategies should include the implementation, evaluation and impact of the EFBDGs.

Keywords: elderly nutrition, food based dietary guidelines

Introduction

The elderly population is increasing globally^{1,2} and it is projected that the global older population will nearly double by 2050.³ South Africa (SA) is also experiencing a rapid increase in the elderly population and it is projected that the number of older people in SA will increase to seven million by 2030, indicating an increase of almost 71% between 2011 and 2030.⁴ Older people are a vulnerable group due to the prevalence of age-related lifestyle diseases (OAU 1981) that are associated with poor quality diets.⁵ It is well known that appropriate food choices and adequate nutritional intake is essential for maintaining health and increased longevity in the elderly.⁶ Due to a lack of an accepted definition of the term 'elderly' the World Health Organisation (WHO) uses the pensionable age as set by governments as a standard to define the group.⁷ For the South African context, the pensionable age is 60 years and older,⁸ and was accepted as the age of the elderly in South Africa for the purpose of these FBDGs.

Contrary to some beliefs, the elderly are still capable of learning and may change their behaviour; learning new nutrition habits is a necessary part of the ageing process due to the body's composition and physiological changes associated with ageing.⁶ Nutrition education (NE) is a tool that provides not only basic nutrition knowledge, but also clarifies relationships between diet and health and may encourage informed dietary decisions to alter dietary habits for effectively improving the quality of life of the elderly.⁹ Food based dietary guidelines (FBDGs) are short,

positive, scientific evidence-based messages used in NE with the aim of changing people's behaviour towards adopting a more appropriate diet, meeting all the energy and nutrient requirements for a healthy lifestyle as well as protecting against the development of non-communicable diseases.¹⁰ It must be pointed out that these guidelines relate to general health advice on food, food groups and dietary patterns in a specific target group for nutritional well-being and should inform policy setting and implementation.¹¹ In 1997, the South African Food Based Dietary Guidelines (FBDGs) work group was established to develop and test a set of FBDGs for healthy people aged seven years and older. A set of 12 guidelines was adopted by the Nutrition Directorate of the South African Department of Health in June 2003. These were revised in 2012, and 11 guidelines now make up the South African FBDGs. Furthermore, it was recommended that additional nutrition education materials and FBDGs for groups with special needs, such as the elderly, be compiled.¹⁰ It was also recommended by the Food and Agricultural Organisation/World Health Organisation (FAO/WHO) Consultation¹¹ that various age groups and specific population groups such as the elderly are affected by different problems and, in this context, it is therefore important to have different FBDGs to address these needs in SA.

The Nutrition Society of South Africa supported the development of the Elderly FBDGs (EFBDGs) and subsequently, a working group was formed in 2012 to formulate the FBDGs specifically for the elderly. Three nutrition and dietetic professionals from

Durban University of Technology (DUT) and Vaal University of Technology (VUT) formed part of this working group together with an expert panel of five externally based experts in the field. The purpose of this paper is to describe the process used to test the EFBDGs for comprehension and cultural acceptability among IsiZulu, Afrikaans, IsiXhosa, English and Sesotho speaking elderly.

Methodology

Ethics approval was obtained from the Institutional Research Ethics Committee at the Durban University of Technology (REC 69/13). A qualitative design was followed using focus group discussions to collect data on the conceptualisation of the developed EFBDGs. The methodology also included quantitative data collection on socio-demographic indicators. Focus groups were conducted in locations easily accessible to the participants with the understanding that the participants had the right to withdraw at any time and that all information would be confidential. Each participant signed informed consent forms and agreed to the recording of the proceedings.

The FAO/WHO expert panel for the development of FBDGs¹¹ informed the activities followed for developing the EFBDGs. Two phases were followed: phase one included the testing of the understanding of the English EFBDGs in the various age groups, and phase two comprised the testing of the translated and adapted EFBDGs. After an extensive literature review, stakeholder discussions and revision, preliminary English EFBDGs were proposed and later circulated to the expert panel. The panel consisted of one international and seven national experts in the field of nutrition for the elderly, the discussions took the form of workshops and e-mail correspondence. Input and minor corrections were received and incorporated into the guidelines. These preliminary English guidelines were then tested amongst elderly from the different language groups to ensure understanding, correct interpretation, as well as suitability and cultural acceptability using focus groups of six to eight women and men (phase one). The study population included IsiZulu, Afrikaans, IsiXhosa, English and Sesotho speaking elderly aged 60 years and older in Durban, Vereeniging, Pretoria, East London and rural Qwa-Qwa (KwaZulu-Natal, Gauteng, Eastern Cape and Free State provinces, respectively). The sites and sampling locations were selected as it was representative of the spoken languages and in proximity of the participating Universities. Specific areas within the cities which included elderly people from low income communities were conveniently selected for the focus group discussions.

Once the results of the first phase focus groups were analysed, the guidelines were again reviewed by the expert panel and adapted to address language barriers as well as unfamiliar words. The guidelines were then translated into languages most commonly used in SA. According to the 2011 SA Census, IsiZulu (22.7%), Afrikaans (13.5%), IsiXhosa (16%), English (9.6%) and Sesotho (7.6%) are the most commonly spoken languages in SA¹² and were therefore used as translation languages. The English EFBDGs were translated in to the various languages by academics in the Department of Communication and Education at the Vaal University of Technology and the Department of Media, Language and Communication at the Durban University of Technology. After the necessary changes were made, the translated guidelines were tested again in focus groups of eight to ten elderly women and men in different groups in the same cities (phase two). Three focus group discussions with between six and eight participants in each group were conducted per language group in the first and second phase of testing, allowing between 18 and 24 participants per language group.

The focus group topic guide developed by Love¹³ for the testing of the 2003 FBDGs was adapted and used as a basis for the focus group discussions in this study and included some socio-demographic questions, including questions on age, gender, ethnic group, education level, employment status, income, cooking fuel and water source. The focus group topic guide questions were structured to ask for each guideline: 'Have you heard or read this message before?'; 'What does this message say to you?'; Specific words from each guideline were highlighted to determine understanding of each, for example: 'What does the word "plenty" mean to you?'; 'What does the word "different" mean to you?'; and 'What does the word "coloured" mean to you?'. Flash cards of food images were used during the focus group discussions to assist participants in identifying food items that may be unfamiliar to them. The topic guide was in English in phase one and in English with the messages in the various translated languages in phase two. The interviewers made notes in English and, as far as possible, the discussions were recorded in English and in the language of discussion.

Elderly participants at the randomly selected centres in the various cities were approached in the days leading up to the focus group discussions. During these meetings, the purpose and format of the focus groups were explained and participation requested from the participants. Once the participants agreed, they were informed of the date, time and venue for the focus groups. The contact information for each person was recorded and the participants were reminded via cell phone of the logistics two days prior to and on the day of the focus group discussions. The interviewers started the focus group sessions by welcoming the elderly participants and explaining the purpose of the focus group. Participants were given a consent form and fieldworkers assisted the elderly with the socio-demographic questionnaire. The participants were informed of the rules for participating in a focus group discussion, such as respect for each other and allowing fellow participants to speak and not interrupt each other. Participants were reminded that the proceedings would be recorded. All feedback was voice recorded as well as recorded in writing by the fieldworkers. Each session was about two hours long and refreshments were served.

After the focus groups the voice recordings were transcribed verbatim by a professional transcription company. The transcribed discussions were coded and analysed for common themes. The written notes from the interviewers were then compared to the outcomes of the analysis. The socio-demographic information was captured on Microsoft Excel® spreadsheets and analysed for descriptive statistics using the Statistical Package for Social Sciences (SPSS®) version 19.

Results

Focus group results of preliminary FBDGs for the elderly (phase one)

Preliminary EFBDGs were developed from the literature and were based on the 2012 SAFBDGs.¹⁰ After circulating the preliminary guidelines to the expert panel and incorporating the suggestions and corrections, a new set of 13 guidelines was developed for the elderly (refer Table 1). In phase one, a total of 86 elderly ($n = 58$ women and $n = 28$ men) participated in the various focus groups of six to eight people per group. All the participants were older than 60 years of age (mean age 67 years) and reliant on a pension. All the groups, with the exception of the English-speaking participants, found it difficult to interpret and understand the first draft of the EFBDGs as presented in this

Table 1: South African FBDGs,* preliminary and revised EFBDGs,**

SAFBDGs	Preliminary EFBDGs	Revised EFBDGs
Enjoy a variety of foods	Enjoy a variety of nutritious foods	Enjoy a variety of nutritious foods
Be active!	Be active	Be active
Make starchy foods part of most meals	Make whole grain starchy food part of most meals	Whole grain starchy food, in small portions, could form part of meals
Eat plenty of vegetables and fruit every day	Eat plenty of coloured vegetables and fruit every day	Eat plenty of different coloured vegetables and fruit every day
Eat dry beans, split peas, lentils and soya regularly	Eat dry beans, split peas, lentils and soya regularly	Eat dry beans, split peas, lentils and soya regularly
Have milk, <i>maas</i> or yoghurt every day	Drink milk, <i>maas</i> or yoghurt every day	Drink or eat milk, <i>maas</i> , cheese or yoghurt every day
Fish, chicken, lean meat or eggs can be eaten daily	Fish, chicken, lean meat or eggs should be eaten daily	Include fish, chicken, lean meat or eggs in most meals
Drink lots of clean, safe water	Drink lots of clean, safe water regularly throughout the day	Drink clean, safe water and/or other fluids throughout the day even if you do not feel thirsty
Use fats sparingly. Choose vegetable oils, rather than hard fats	Use fat sparingly; choose vegetable oils rather than hard fats	Use fat sparingly; choose vegetable oils rather than hard fats
Use sugar and foods and drinks high in sugar sparingly	Use food and drinks high in sugar sparingly	Use food and drinks high in sugar sparingly
Use salt and food high in salt sparingly	Use salt and food high in salt sparingly	Use salt, salty seasonings and food high in salt sparingly
	Use alcohol sensibly	If you drink alcohol, drink sensibly
		Eat clean and safe food

*FBDGs: Food based dietary guidelines.

**EFBDGs: Elderly food based dietary guidelines.

phase. Where the participants were familiar with a message, they indicated that they had seen or heard about it either at a clinic or hospital.

Exposure to the SAFBDGs

The results indicated that most of the elderly participants found the concept of FBDGs unfamiliar and had not heard of at least six of the guidelines, including: 'enjoy a variety of nutritious foods'; 'eat dry beans, split peas, lentils and soya regularly'; 'include fish, chicken, lean meat or eggs in most meals'; 'drink or eat milk, *maas*, cheese or yoghurt every day'; and, 'whole grain starchy food, in small portions, could form part of meals'. The 'be active'; 'eat plenty of different coloured vegetables and fruit every day'; 'use salt, salty seasonings and food high in salt sparingly'; 'if you drink alcohol, drink sensibly'; and 'use food and drinks high in sugar sparingly' guidelines were more familiar to them as most of the participants in all the language groups had previously heard similar messages.

Enjoy a variety of nutritious foods

Most of the elderly, with the exception of the English-speaking group, indicated that they were unfamiliar with the word 'variety' in messages. The word 'nutritious' was unfamiliar to most of the participants (English speaking and other language groups) and they could not explain what it meant.

Be active

Most of the participants in all the groups had heard this message before and understood what 'be active' implied.

Whole grain starchy food, in small portions, could form part of meals

A small number of the participants understood or had heard this message before, but they indicated that they found it confusing. From the results it can be gathered that the term 'whole grain' was not understood in most of the focus groups with the exception of the English-speaking participants. Most of the

elderly did, however, understand what 'starchy food' implied and could explain what foods were included as starchy foods. 'Part' of a meal was also a term unfamiliar to most of the participants.

Eat plenty of different coloured vegetables and fruit every day

Almost half of the participants indicated that they had heard this message in clinics or hospitals previously. They also understood the terms 'plenty' and 'different' used in this guideline. However, the word 'coloured' was seen by the participants as out of place in this context.

Eat dry beans, split peas, lentils and soya regularly

This guideline was unfamiliar to most of the participants in the groups and they indicated that they had not heard this previously. Split peas and lentils were not familiar to the groups. Soy was known by some as they have seen it in supermarkets in a pre-packed dry form.

Include fish, chicken, lean meat or eggs in most meals

This message was unfamiliar to most of the participants and a small number of the participants in the groups did not understand the word 'lean'. More than half of the participants understood that 'most meals' was intended to refer to 'all meals'.

*Drink or eat milk, *maas*, cheese or yoghurt every day*

Most of the participants indicated that they had heard this message previously and understood that they should include all of the above on a daily basis; however, affordability was seen as a problem.

Use fat sparingly; choose vegetable oils rather than hard fats

A small number of the elderly had never heard this message before. Furthermore, the term 'sparingly' was unfamiliar and they did not understand what this implied. Not all the participants

were familiar with 'vegetable oil' and 'hard fats' and did not understand the difference between the two.

Use salt, salty seasonings and food high in salt sparingly

This guideline was familiar to all the participants and they could understand the message that salt should be used in limited amounts.

Drink clean, safe water and/or other fluids throughout the day even if you do not feel thirsty

The message was familiar to most of the participants, and they understood the term 'clean, safe water' and 'throughout the day', but they did not understand the meaning of 'other fluids'.

If you drink alcohol, drink sensibly

The elderly indicated that they had heard this message previously, but some of the non-English speaking groups did not understand the term 'sensibly'.

Use food and drinks high in sugar sparingly

The message was familiar to most of the participants; however, the word 'sparingly' was not understood by the non-English speaking participants.

Eat clean and safe food

The elderly indicated that they had heard this message previously, and also understood the terms 'clean food' and 'safe food'.

Focus group results of adapted EFBDGs (phase two)

In phase two, the guidelines were adapted, with assistance from the expert panel, to incorporate the feedback from the focus group discussions (refer Table 1). The guidelines were then translated into the first language of the participants. Table 2 presents the adapted guidelines in the five languages. In phase two, a total of 123 elderly ($n = 93$ women and $n = 30$ men) participated in specific focus groups ($n = 6-8$ per FGD) in the various languages: IsiZulu ($n = 30$), Afrikaans ($n = 21$), IsiXhosa ($n = 24$), English ($n = 24$) and Sesotho ($n = 24$). All these participants were 60 years of age and older (mean age 69) and reliant on a pension.

The results of the tested translated guidelines were more positive with only a low number of participants not understanding the meanings of the messages. Most of the participants in the various language groups indicated that they had heard the messages previously. The phrases identified in phase one as not being understood, namely 'whole grain', 'lentils', 'plenty', 'variety', 'part', 'lean', 'most meals', 'other fluids', and 'sensibly' were either changed or were understood once translated in to the focus group language.

- The word 'variety', when translated into the various languages, represented 'different types'; and, 'nutritious' was translated to read as 'with nutrition' and 'healthy food'.
- The word 'whole grain' was identified as a difficult word to understand; translated it read as 'with ground seeds'; and, 'starchy food' was translated as 'different types of grains'.
- 'Coloured' fruit and vegetables was a difficult concept to understand and was translated into the other languages as 'all kinds' and 'different colours', which was a more familiar concept.
- The guideline 'Eat dry beans, split peas, lentils and soya regularly', with 'split peas' and 'lentils' as unfamiliar words, was translated as 'get used to eating beans, peas, dahl and

soya....'; 'soy' was also explained as 'healthy beans' in IsiXhosa.

- 'Lean' in the guideline 'Fish, chicken, lean meat or eggs should be eaten daily' was translated to read as 'meat that does not have a lot of fat'; and, 'most meals' was translated to 'always if you can' or 'most of the time' and was, hence, better understood.
- 'Use fat sparingly' was translated as 'use a little fat' and was better understood as a result. The difference between 'vegetable fat' and 'hard fat' was also indicated as a concept that was not understood. These words were translated to read as 'cooking oil', which was more commonly known to communities as 'sunflower oil' and 'animal fat'.
- When the water guideline was explained in English, 'other fluids' was not clearly understood; but, when translated to the local languages, it was clearly understood.
- 'Sensibly' in the English FBDGs about drinking alcohol was an unfamiliar concept; but when translated, it was explained as 'using your head' and/or 'conscious mind' and made sense to the focus group participants.

Discussion

Diversified diets are necessary to achieve optimal energy, essential nutrient requirements and general health and well-being,¹⁴⁻¹⁷ particularly for the elderly because of their risk for decline in dietary diversity leading to poor health and nutritional status.¹⁸ Research conducted by Reedy *et al.*,¹⁹ provides evidence regarding the benefit of an overall healthy eating pattern.

In phase two, the results indicated that most of the final guidelines were well understood. The three guidelines where most confusion was highlighted were those regarding legumes, meat, fish and chicken, and whole grains. In the English guidelines, it was mostly the wording of these guidelines that was not understood. However, when these words were rephrased or translated to the local languages, it became clearer and participants understood the guidelines. The revised EFBDG is very different from the SAFBDG with regards to the guideline relating to starchy foods for the following reasons: elderly people in general do not have a good appetite; tooth loss and gum disease are often present; and, difficulty in swallowing. Smaller portions are easier to consume and more easily processed by the body.²⁰ Furthermore, the high incidence of obesity and lifestyle disease amongst South Africans needs to be addressed through interventions.²¹ FBDGs are a preventative measure¹¹ and, therefore, it is recommended that a smaller portion of high fibre starchy food is selected at meal times to allow other nutrient dense foods, such as vegetables, to form part of the plate. Scott *et al.*²² recommends that the SAFBDG be made available in all the official languages to facilitate understanding and implementation.

Various studies found that the carbohydrate intake in the elderly is lower than the recommended amounts.²³ The Department of Health in SA recommends, as part of the 2012 FBDGs, that starchy food should be part of meals.²⁴ Bernstein and Munoz²³ explain that to meet carbohydrate recommendations the elderly need to choose fibre rich fruit, vegetables, legumes and whole grains. Food low in dietary fibre is often poor in nutrient density and therefore contributes to a lower nutrient dense diet, placing the elderly at risk for malnutrition and obesity.

Micronutrient intakes among the black elderly in SA were shown as deficient in vitamins A, B₂, B₆, C, D, E, K, folate and biotin, as well

Table 2: The SAEFBDGs* in English, Afrikaans, isiZulu, IsiXhosa and Sesotho

English
<p>South African Food Based Dietary Guidelines for the elderly</p> <ol style="list-style-type: none"> 1. Enjoy a variety of nutritious foods 2. Eat plenty of different coloured vegetables and fruit every day 3. Eat dry beans, split peas, lentils and soya regularly 4. Include fish, chicken, lean meat or eggs in most meals 5. Drink or eat milk, maas, cheese or yoghurt every day 6. Drink clean, safe water and/or other fluids throughout the day even if you do not feel thirsty 7. Whole grain starchy food, in small portions, could form part of meals 8. Use fat sparingly; choose vegetable oils rather than hard fats 9. Use salt, salty seasonings and food high in salt sparingly 10. Use food and drinks high in sugar sparingly 11. Be active 12. If you drink alcohol, drink sensibly 13. Eat clean and safe food
Afrikaans
<p>Suid Afrikaanse Voedsel Gebaseerde Dieet Riglyne vir bejaardes</p> <ol style="list-style-type: none"> 1. Geniet 'n verskeidenheid voedsame voedselsoorte 2. Eet genoeg verskillend-gekleurde groente en vrugte elke dag 3. Eet gereeld droë bone, gesplete ertjies, lensies en soja 4. Sluit vis, hoender, maer vleis of eiers in meeste van u maaltye in 5. Drink of eet elke dag melk, maas, kaas of joghurt 6. Drink skoon, veilige water en/of ander vloeistowwe deur die dag al is u nie dors nie 7. Volgraan styselvoedsel, in klein porsies, kan deel vorm van maaltye 8. Gebruik vet spaarsamig; kies groente olie eerder as harde vet 9. Gebruik sout, souterige geurmiddels en kos met 'n hoë soutgehalte versigtig 10. Gebruik kos en vloeistowwe met 'n hoë suikerwaarde oordeelkundig 11. Wees aktief 12. Indien u alkohol gebruik, doen so oordeelkundig 13. Eet skoon en veilige kos
isiZulu
<p>Imihlahlandlela yokudla yabantu abadala echanzwe kususelwa ezincadini</p> <ol style="list-style-type: none"> 1. Thokozela ukudla okunomsoco okwehlukene 2. Idla izinhlobonhlobo zezithelo nemifino njalo ngosuku 3. Jwayela ukudla ubhontshisi, uphizi, udali kanye ne soya 4. Bandakanya izihlanzi ezidliwayo (ufishi), inyama yenkukhu, inyama engenawo amafutha amaningi noma amaqanda ukudleni kwakho njalo uma ungakwazi 5. Phuza noma udle ubisi, amasi, ushizi nezinye izinhlobonhlobo zokudla ezisuselwe obisini njalo ngosuku 6. Phuza amanzi aphephile nahlanzekile, noma uphuze okungamanzi kulo lonke usuku noma ungomile 7. Ungabandakanya isikali esincane sokusanhlamvu ologayiwe okunesitashi kanye nokudla kwakho 8. Sebenzisa kancane amafutha. Jwayela amafutha okupheka kunamanoni enyama noma amafutha aqinile 9. Sebenzisa isikali esincane sikasawoti, nezinandisi zokudla ezinosawoti kanye nokudla okunosawoti omningi 10. Sebenzisa kancane ukudla neziphuzo ezinoshukela omningi. 11. Khuthala no ujoye ukuzivocavoca 12. Uma uphuza uphuzo oludakayo luphuze ngendlela enomqondo 13. Idla ukudla okuhlanzekile nokuphephile nsuku zonke
isiXhosa
<p>Imigaqo ne mimiselo ejongene yokutya ukusempilweni kuMzantsi Afrika ebantwini badala</p> <ol style="list-style-type: none"> 1. Yonwabela intlobo nge ntlobo zukutya okondlayo 2. Yitya izifuno neziqhamo ezimabala bala rhoqo mihla yonke 3. Itya imboty, erityisi, ezincinci kwakunye ne mbotyi ezinenempilo (soya) rhoqo 4. Makubekho Intlanzi, inkuku, inyama engatyebanga okanye amaqanda ngamaxesha amaninzi ekuyteni kwakho 5. Sela ubusi utye amasi, iyoghurti, kwa kunye nesonka samasi rhoqo. 6. Sela acocekileyo, nakhuselekiyo amanzi kwakunye nezinye iziselo nokuba uziva unganxanwanga 7. Ukutya okune ngqolowa, ngoko mlinganiselo omncinci, kungaba ngezinye intwanantwana ozityayo 8. Sebenzisa amafutha kancinci khetha i oyile yemifuno endaweni yokusebenzisa amanqatha 9. Sebenzisa ityiwa, neziqholo nokutya okunetyiwa eninzi kancinci 10. Sebenzisa ukutya ne ziselo ezineswekile encinci 11. Iba nento oyenzayo kwaye ukhuthale 12. Ukuba usela utywala, sela usenzinqondweni 13. Itya ukutya okucecekileyo nokukhuselekileyo

(Continued)

Table 2: (Continued)

Sesotho
1. Thabela mefuta e fapaneng ya dijo tse ahang mmele
2. Eja mefuta e mengata e fapaneng ya meroho le ditholwana ka mehla le mehla
3. Eja dinawa tse omelletseeng, dithotse tsa meroho, lentils le soya ka mehla le mehla?
4. Etsa hore hobe le tlhapi, kgoho, nama e senang mafura kapa mahe dijong tse ngata
5. Enwa lebese, mafi, kase kapa yoghurt ka mehla le mehla
6. Enwa metsi a hlwekileng le a bolokehileng kapa mefuta e meng ya dino letsatsi lohle le ha osa nyorwa
7. Ditlheberetsi tse nang le setatjhe, ka palo e nnyane, e k ba karolo ya dijo
8. Sebedisa mafura hanyenyane, kgetha mafura a meroho hoena le mafura a thata
9. Sebedisa letswai, mefuta e meng ya matswai le dijo tse nang le letswai le lengata hanyenyane
10. Sebedisa dijo le dino tse nang le tswekere e ngata hanyenyane
11. E ba matjato / Kapa e ba mafolofolo
12. Ha eba o nwa nnotahi, e nwe ka kelohlolo
13. Eja dijo tse hlwekile le tse bolok

*SAEFBDGs: South African Elderly Food Based Dietary Guidelines.

as calcium, magnesium, copper and selenium.²⁵ Very little recent data are available regarding the micronutrient profile of other elderly persons. The National Food Consumption Survey, however, showed that the overall diet of South Africans is poor²¹ in terms of micronutrients, hence the importance of sufficient consumption of a diet from all the different food groups, specifically fruit and vegetables. With ageing, nutrient density becomes even more important to sustain health. Older adults often do not include an adequate number of fruits, vegetables and milk products in their diet, affecting their nutritional status.²⁶ Therefore, the guideline on enjoying a variety of food and consuming different coloured vegetables and fruit is important and should be supplemented with various support materials such as images and examples of healthy options.

'Be active' as a FBDG for the elderly is important as regular exercise and physical activity provide many important benefits such as minimising biological and physiological changes associated with ageing, preventing and decreasing the risk of chronic diseases of lifestyle (CDL) and degenerative diseases as well as providing treatment for geriatric syndromes and diseases.²³ The South African guidelines for healthy eating for adults and children older than five years included 'be active' as a guideline as physical activity is viewed as being just as important for health as eating a balanced, varied diet.²⁴

Limiting fat in the diet and selecting a good fat source is important as research on the different types of dietary fats has emphasised the beneficial role of omega-3 polyunsaturated fatty acids in the prevention of cardiovascular disease (CVD) by preventing blood clots, atherosclerosis and lowering blood pressure.^{27–29} Evidence from a study in Spain shows that a high low density lipoprotein-cholesterol (LDL-C) level (also a risk factor for CVD), caused by saturated and trans fats in the diets, is associated with a higher risk of osteoporotic fractures.³⁰ This could possibly apply to the South African population. The 2012 South African National Health and Nutrition Examination Survey (SANHANES) reported that 70% (64.8% African, 59.3% coloured and 57.2% Indian) of elderly women and 53.5% (28.5% African, 37.2% coloured and 39.8% Indian) elderly men aged 65 years and older were overweight or obese in South Africa,³¹ highlighting the importance of limiting fat in the diet.

Sodium sensitivity usually increases with age and studies have proven that salt restriction can lower blood pressure in the

normotensive salt sensitive elderly. A limitation in dietary sodium intake is, therefore, effective in controlling hypertension in the elderly.^{32, 33} High blood pressure is also increasing the risk for renal disease, proteinuria, renal stones, osteoporosis and possibly stomach cancer.³⁴

Consuming sufficient fluid is a very important guideline for the elderly as a decrease in sensitivity to thirst sensations, further aggravated by deliberate attempts to lower fluid intake in order to reduce frequency of urination and fear of incontinence, are common causes of dehydration.³⁵ Even though the recommended fluid intake has been established with the purpose of supplementing normal daily losses and preventing the effects of dehydration, it is constantly not met by many elderly people resulting in dehydration.²³

Alcohol has been removed from the SAFBDGs for people 7 years and older;¹⁰ however, the researchers decided to include it in the EFBDGs as recommended by the literature. Alcohol is not seen as a nutrient and contributes 29.4 kJ of energy per gram and can, thus, contribute to overweight and obesity when taken with food. In some people the consumption of alcohol replaces eating and, as a result, diet quality declines and this can result in malnutrition.²⁷

Conclusion

The purpose of this paper was to describe the process by which the EFBDGs were tested for comprehension and cultural acceptability among relatively healthy elderly who speak IsiZulu, Afrikaans, IsiXhosa, English and Sesotho. In phase one, the initially developed guidelines were tested, then adapted and translated followed by phase two where the adapted and translated EFBDGs were retested in the various ethnic groups.

Conducting focus groups in the various population groups presented the researchers with a better view of how different population groups understand these guidelines and how different phrases for the same concept could enhance understanding. The English-speaking elderly responded better to the English guidelines than the other population groups. A clear difference was observed in the understanding of the EFBDGs by the other population groups that spoke Afrikaans, IsiZulu, IsiXhosa and Sesotho once the English guidelines were translated and specific words placed in context to the day-to-day language of the groups.

Aligning the SAEFBDGs with the current SAFBDGs allows consumers to relate the guidelines to children, adults and the elderly without having to change their thought process.

The way forward

Scientific support papers for each of the developed guidelines should be published in an accredited journal. The development of support material for health professionals and the wider community is in the developmental phase and will be translated into the five languages. Future strategies should include making the information available in all of South Africa's official languages. A strategy should also be formulated on how the guidelines should be implemented to improve the dietary patterns of the elderly, combined with the development of a proposal for evaluation of the implementation and impact of the EFBDGs. These guidelines could and should be used in the Integrated Nutrition Programme (INP) of the Department of Health, and should form the basis of nutrition education for the elderly in South Africa.

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