

# Food and nutrition labelling as a nutrition education tool: understanding, perspectives and practices of South African dietitians.

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**Introduction:** Food and nutrition labelling is an effective tool to address diet-related non-communicable diseases (NCDs), in which nutrition education plays an integral role.

**Objectives:** To investigate South African dietitians' understanding, perspectives and practices of food and nutrition labelling as a nutrition education tool.

**Design:** A quantitative descriptive cross-sectional study was conducted.

**Setting:** A nationwide survey was undertaken of dietitians from all sectors of practice.

**Subjects:** Dietitians registered with the Health Professions Council of South Africa (HPCSA) ( $n = 137$ ).

**Outcome measures:** A self-administered electronic survey was used for data collection.

**Results:** Awareness of labelling regulations was high (86.9%); however, confidence in knowledge of regulations was lacking (53.3%), as well as knowledge regarding food-labelling regulations (R146) (52.6%). More than half (57.7%) regarded labels as relevant to their daily work and 51.8% used labels frequently, varying use depending on client needs. For education purposes, the nutrition information table (75.2%), client-specific nutrients (70.0%) and health endorsement logos (HELs) (59.2%) were most frequently used. Product healthiness was mainly evaluated using the cooking method (86.1%), level of processing (67.9%) and product category (63.5%). Least used aspects were origin/certification claims (39.4%) and animal husbandry (34.3%). Highly rated aspects included belief in label efficacy (88.3%), accuracy (81.8%), a positive attitude (87.6%) and relevance (80.2%).

**Conclusion:** To promote optimal use of labelling as a nutrition education tool, standardisation, trustworthiness and continuing education should be addressed. Furthermore, the urgent promulgation of the draft food labelling regulations will address existing barriers to label use.

**Keywords:** dietitian, education, food labelling, nutrition, perspectives, South Africa

## Introduction

Diet-related non-communicable diseases (NCDs) are the leading cause of death and disability worldwide, and acknowledged as a global burden and threat to development in the twenty-first century.<sup>1</sup> South Africa's population is experiencing a rapid surge in NCDs attributed to nutrition transition, rapid shifts in socioeconomic development and urbanisation.<sup>2</sup> The South African Demographic and Health Survey of 2016<sup>3</sup> indicated that obesity, a risk factor for most NCDs, is of major concern, highlighting the need to address dietary choices and food-purchasing decisions of South Africans.

Worldwide, food and nutrition labelling is recognised as an important and cost-effective public health tool to guide healthier food choices. It forms an integral part of nutrition policies addressing NCDs,<sup>4</sup> and as such is identified as one of the 'best buys' in South Africa's strategic plans for both NCDs<sup>5</sup> and obesity prevention.<sup>6</sup> Regulations relating to the labelling and advertising of foodstuffs (R146)<sup>7</sup> were published in 2010 in order to align with Codex Alimentarius international standards, primarily addressing food-labelling accuracy and the prevention of misleading advertising. In 2014, a comprehensive amendment to the regulations was published for comment (R429),<sup>8</sup> where one of the main objectives is healthy eating promotion through better labelling and advertising resulting in

healthier food choices. To date, the draft has yet to be promulgated.

Educating consumers regarding the use of labelling is fundamental in enabling better use and comprehension of labels.<sup>9</sup> Therefore, educational interventions can enhance the impact of labelling on diets. Combining educational interventions with 'general healthy eating' recommendations improves label use and understanding, and promotes healthier food choices, potentially reducing obesity prevalence.<sup>9</sup>

Dietitians play a significant role in improving the nutrition knowledge and health literacy of the public. Also, by promoting optimal labelling use, dietitians support labelling policies to ultimately benefit consumers.<sup>10</sup> However, little is known regarding dietitians' awareness of and perspectives on labelling regulations and to what extent they employ labelling as a nutrition education tool. Several studies have explored South African consumers' use and understanding of food and nutrition labelling,<sup>11,12</sup> but, to date, none have examined the role of dietitians and their use of labelling as a nutrition education tool. Therefore, this study aimed to investigate South African dietitians' use of labelling as a nutrition education tool, specifically with regard to their understanding (awareness and knowledge), perspectives and practices and to identify barriers and enablers to promote increased label use.

## Methodology

### Study type, study population and sampling

A quantitative descriptive cross-sectional approach was used. Dietitians registered with the Health Professions Council of South Africa (HPCSA) were recruited through the Association for Dietetics in South Africa (ADSA), social media and snowball sampling. In order to generalise results to the dietetic population with a certain degree of accuracy, a 95% confidence interval and a margin of error of 9% were used and a minimum sample size of 117 participants was calculated. In the end, 137 dietitians participated in the study.

### Data collection

Using SurveyMonkey® a self-administered electronic survey was developed based on the study objectives. The survey questions consisted of seven sections: (1) demographic information, (2) awareness and understanding of labelling as a nutrition education tool, (3) awareness and knowledge of regulations, (4) behaviours and practices, (5) perspectives (6) label aspects used to evaluate how healthy a product is, referred to as 'product healthiness' and (7) barriers and enablers. To test nutrition-labelling knowledge, 11 basic nutrition-labelling knowledge statements were posed to select either 'True' or 'False'.

The survey was sent to three food industry and academic experts for content validity testing. Relevant suggestions and adaptations were made to improve the inclusion of survey questions, address the study objectives and avoid bias. A pilot study of 10 dietitians was then conducted to determine face validity (March 2021). The survey structure and layout were adjusted accordingly to improve ease of completion. Results from the pilot study were not included in the main study. The survey length was kept to 15–20 minutes as lengthy surveys are often not well received and to limit participant fatigue.

Invitations to an online survey were distributed (April–May 2021), with reminders sent three weeks later. Access to the survey was given on provision of informed consent; only dietitians registered with the HPCSA were included in the study. A lucky-draw prize was offered to incentivise participation. The survey was anonymous; only participants opting into the lucky draw provided contact details. Ethics approval was obtained from the Health Research Ethics Committee of the Faculty of Medicine and Health Sciences of Stellenbosch University (Ref no.: S20/10/265).

Results were grouped according to three general themes: regulatory knowledge, nutrient content interpretation and nutrition claims. Pre-set responses and Likert scales were used to assess behaviour and perspective-related questions. Three themes were used to evaluate the use of food labels as an education tool: 'frequency of use', 'usefulness' and 'importance'. The survey included four-point Likert scales (strongly agree, agree, disagree and strongly disagree) and five-point Likert scales (always, often, sometimes, seldom, never). Closed-ended questions were used to encourage completion.

### Data analysis

Data from the survey was captured by SurveyMonkey® and exported using Microsoft Excel® (Microsoft Corp, Redmond, WA, USA). IBM® SPSS® statistics version 27 (IBM Corp, Armonk, NY, USA) was used for statistical analysis. Demographic information was summarised in tabular format using basic summary descriptive statistics, such as frequencies, means

Table 1: Demographic characteristics of participants

Age (years) (mean ± SD)	36 (±9.6)	
Graduating year (mean ± SD)	2008 (±9.9)	
Years of experience (mean ± SD)	11.2 (±9.4)	
	<i>n</i>	%
Gender:		
Female	135	98.5
Male	2	1.5
Province:		
Eastern Cape	9	6.6
Free State	6	4.4
Gauteng	59	43.1
KwaZulu-Natal	12	8.8
Limpopo	2	1.5
Mpumalanga	4	2.9
North West	5	3.6
Northern Cape	2	1.5
Western Cape	38	27.7
Level of education:		
Bachelor's or Honours degree	99	72.3
Master's degree	34	24.8
Doctoral degree	4	2.9
Sector of practice: <sup>a</sup>		
Academia/university/training institution	24	14.5
Community (public service)	16	9.7
NGO – community/private	7	4.2
Food services	14	8.5
Food industry/retail	19	11.5
Hospital (public service)	30	18.2
Hospital (private)	41	24.8
Private practice	80	48.5
Unemployed	6	3.6

<sup>a</sup>Participants could select more than one sector, resulting in practice percentages not adding up to 100%.

and standard deviations. Likert-scale responses were summarised as percentages using graphs and tables.

## Results

### Demographic characteristics

In total, 169 respondents started the survey, with 137 completing it in full. Participants were predominantly female (98.5%) with a mean age of 36 ± 9.6 years, the majority residing in Gauteng (43.1%) and working in the private sector (48.5%). Participants' demographic characteristics are summarised in Table 1.

### Food labelling understanding as measured by awareness and knowledge

The majority of participants were aware of the current food and nutrition labelling regulations and codes (86.9%). However, less than a third (32.1%) were knowledgeable, and only half expressed confidence in knowledge of permitted nutrition information (53.3%) and mandatory requirements governing food packaging information (54.7%). Almost all participants (95.6%) were aware of and/or knowledgeable concerning the Infant and Young Child Regulations (R991). They were least aware (46.0%) of regulations relating to various compositional agricultural food standards.

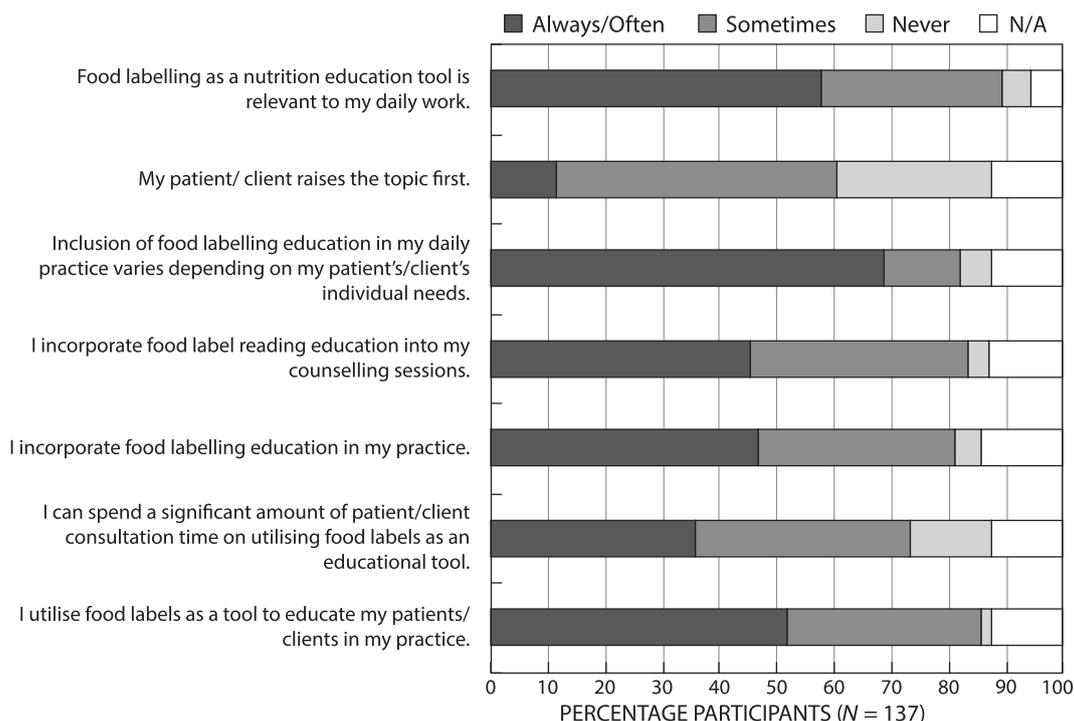


Figure 1: Food labelling as an education tool: dietitians' behaviour and practices.

Dietitians showed good insight regarding the use of nutrition claims (74.0% correct answers) and were knowledgeable in nutrient content interpretation (61.3% correct answers). However, knowledge relating to food-labelling regulations (R146) was lacking (52.6% correct answers).

### **Food labelling as an education tool: dietitians' behaviour, practices and perspectives**

More than half of participants acknowledged the relevance of food labelling as a nutrition education tool in their daily work (57.7%) and 51.8% use it often. Individual client needs inform food labelling use, as 68.6% of the participants indicated that use varied according to client needs (Figure 1).

The majority of participants (77.4%) used food-product label samples as an education tool. About a third of participants (31.4%) incorporated store and home visits (27.0%).

Nutrition label components most frequently used were the nutrition information table (75.2%), client-specific nutrients (70.0%) and health endorsement logos (HELs) (59.2%). Interestingly, front-of-pack labels (FOPLs) such as guideline daily amounts (GDAs) and nutrient reference values (NRVs) were used by less than half, 43.1% and 41.6% respectively (Figure 2). The nutrition information table was rated as *useful* by most (94.2%), whereas 23.4% rated 'percentage of NRVs' as *not useful*, and 19.7% rated front-of-pack labels as *not useful*. Similar ratings were found regarding the 'importance' of nutrition labelling aspects (Figure 2).

When *evaluating and forming an opinion* regarding a product's health attributes, the aspects most frequently used were the cooking method (86.1%) and level of processing (67.9%). More than half of participants never evaluate a product based on genetically modified (GMO) ingredients (54.7%), and more than a third never evaluate a product using origin/certification

claims (39.4%). For *client education*, similar patterns emerged (Figure 3).

Most participants agreed that labelling is important to promote better food choices (98.6%); to encourage healthier food purchases (97.0%); and to help reduce diet-related NCDs (94.2%). Almost all participants agreed that dietitians play an important role in labelling education (98.0%), that it is an important component of dietetics practice (98.6%) and that it increases nutrition knowledge (97.1%). Almost all participants expect all dietitians to have adequate knowledge (99.3%) and skill (83.2%), and agree they should play a greater role (98.6%) in educating consumers on food and nutrition labelling. Most participants have a positive attitude to using labels as a nutrition education tool (87.6%).

About half of participants (52.5%) agreed that they received adequate undergraduate training, almost two-thirds (64.2%) indicated that training was adequate to enable them to use food labelling as an educational tool, and about two-thirds (64.3%) have remained up to date. Almost all participants (97.9%) believe it is their responsibility to remain up to date with legislation, and many (87.6%) believe that it should be a continuing education requirement.

Many participants indicated that the following institutions should be responsible for keeping the profession up to date: ADSA (86.1%), academic institutions (82.4%) and the Department of Health (81%).

### **Barriers: access to resources and client trust**

While more than two-thirds (70.8%) of participants have access to adequate resources, more than half (54.8%) expressed difficulty in accessing practical information. Less than half (40.1%) indicated that their clients lack trust in the accuracy, integrity and transparency of food labels, and about half (48.2%) of participants believe that labels are too complex for their clients.

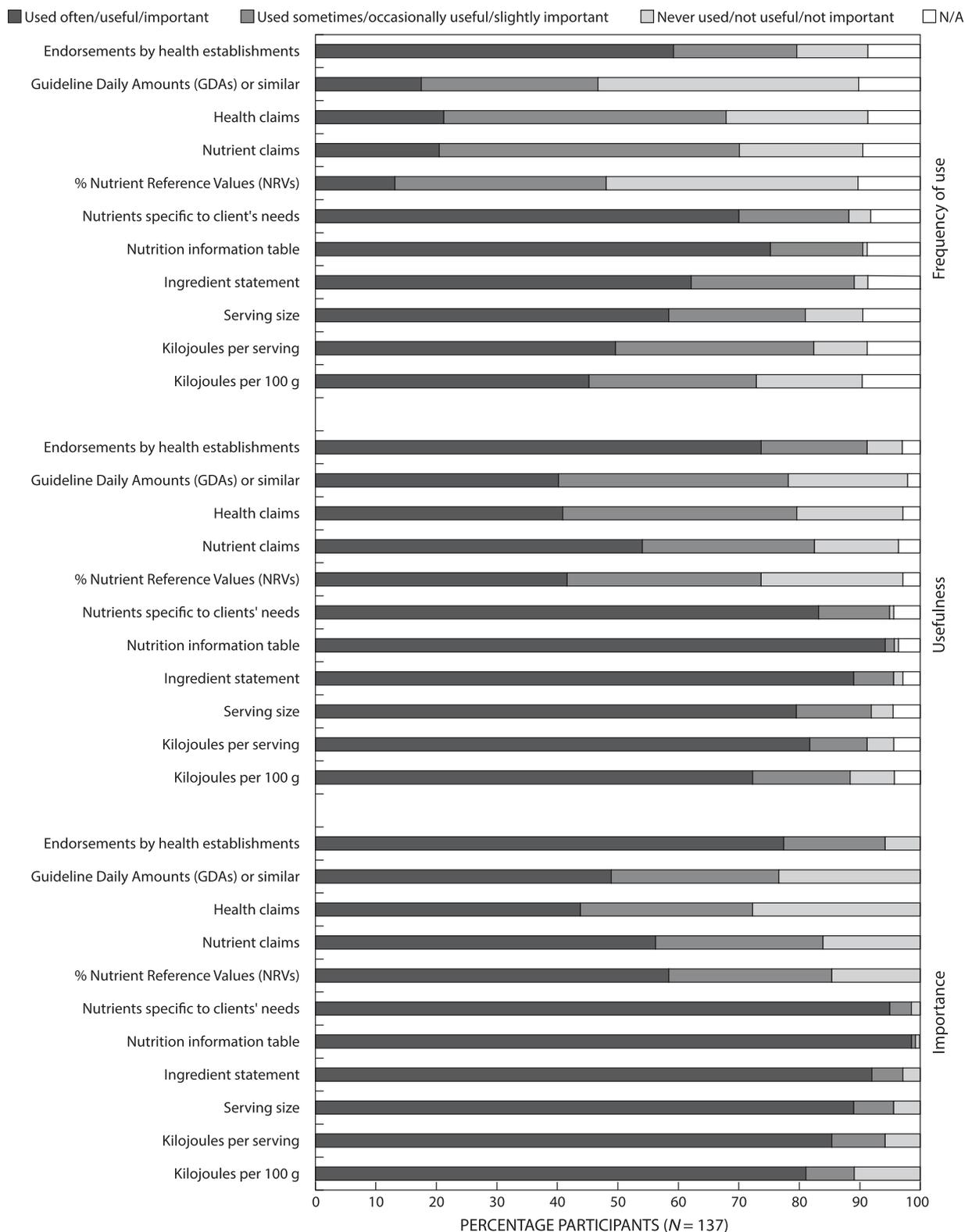


Figure 2: Frequency of use, usefulness and importance of nutritional aspects of food labels.

Two-thirds (67.9%) agreed that unstandardised labels are confusing (Figure 4).

**Enablers to promote an increase in food label usage**

Almost all dietitians indicated that further training would improve their ability to use food labelling as a nutrition education tool (89.8%) and would like further training (89.1%).

Most participants (70.8%) used their peers as a source of information.

Almost all participants agreed that the following factors would increase their use of labels: better access to practical resources (96.4%), continuing professional development (CPD) opportunities (93.4%), trust in information integrity (92.0%) and better undergraduate training (86.9%).

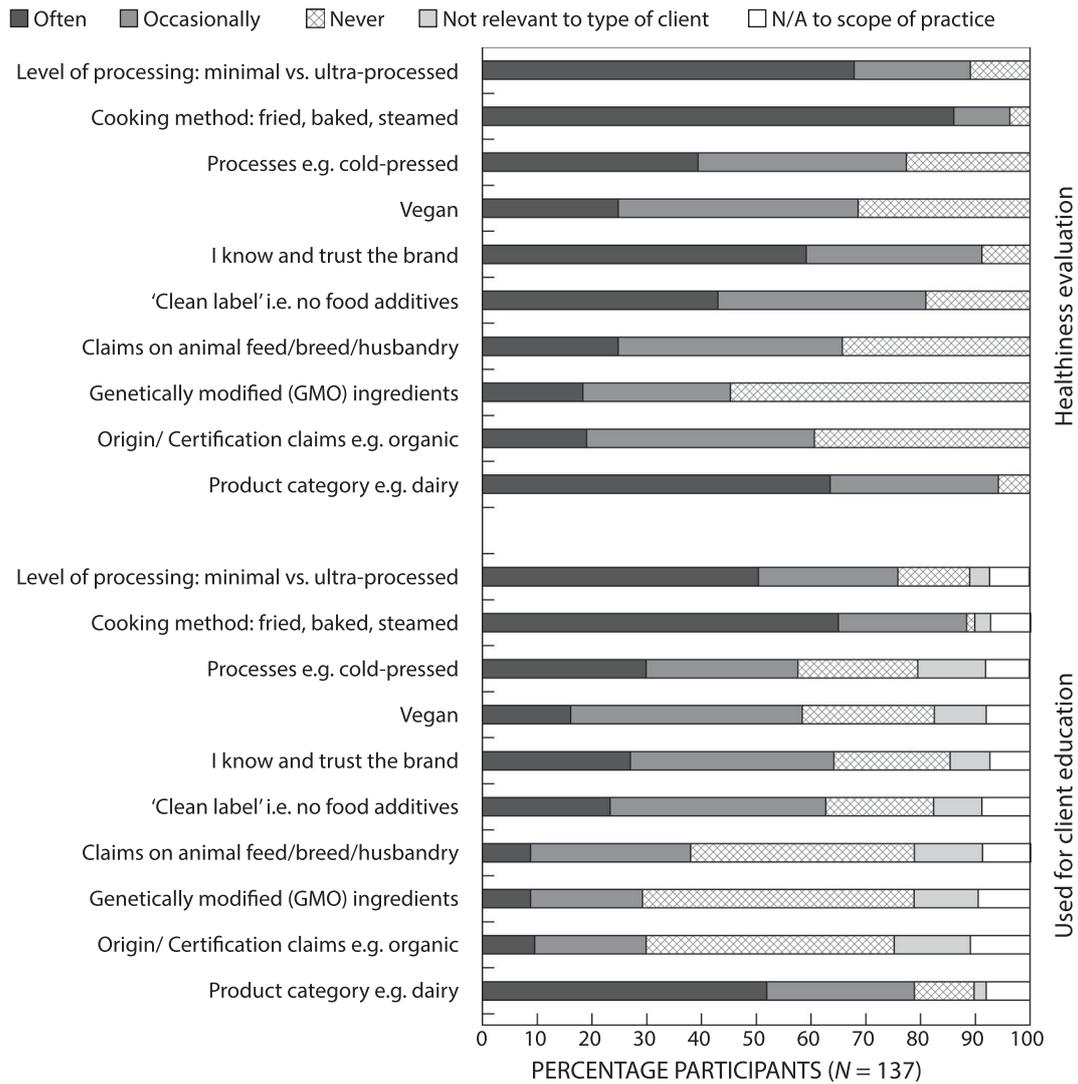


Figure 3: Additional aspects of food labels used for healthiness evaluation and client education.

**Discussion**

This is a baseline nationwide study including dietitians from all provinces in all sectors of work, the highest representation being from the private sector. Although represented in smaller numbers, responses were received from all sectors of practice, providing a representative view of the profession as a whole.

**Understanding: awareness and knowledge**

While awareness of the various regulations was high, less than a third were aware of and knowledgeable concerning the labelling regulations, and half of the participants lacked confidence in their knowledge regarding the permitted information and mandatory requirements. South African food-labelling regulations were published in 2010.<sup>7</sup> The majority of participants graduated before the publication date and therefore did not receive formal training. Also, dietitians cited poor access to continuing education opportunities as a barrier to knowledge. Interestingly, participants were most familiar with the Infant and Young Child Regulations (R991), possibly due to direct implications for a dietitian’s ethical conduct<sup>13</sup> and active civil society support of the regulations creating greater public and professional awareness and media attention.<sup>14</sup>

**Behaviour and practices**

Though food labelling education may not be relevant to all dietitians’ daily work, about two-thirds of participants regarded labelling as being relevant to their daily practice, and half use labels often. Dietitians are skilled at managing diverse dietary needs and tailor their dietary management approach appropriately,<sup>15</sup> and their decision to incorporate food labelling education will thus be adapted to the individual. Participants listed the following factors as impacting their lack of use of labelling education: food insecurity, budgetary constraints, poor education levels and literacy, time constraints, and low consultation frequency. This is of great concern in an under-resourced public sector where such challenges are most prevalent and dietetic services are severely strained.<sup>16</sup>

**Nutrition education methods and tools used by dietitians regarding food labelling**

Product labels were the most commonly used tool to educate clients. The practice of learning to read food labels by using actual products as visual aids is an effective means to improve food label interpretation, build confidence and improve recall, and is especially effective for low health literacy.<sup>17</sup>

A third of participants used in-home and store visits, which are a visually interactive approach effective for health-illiterate

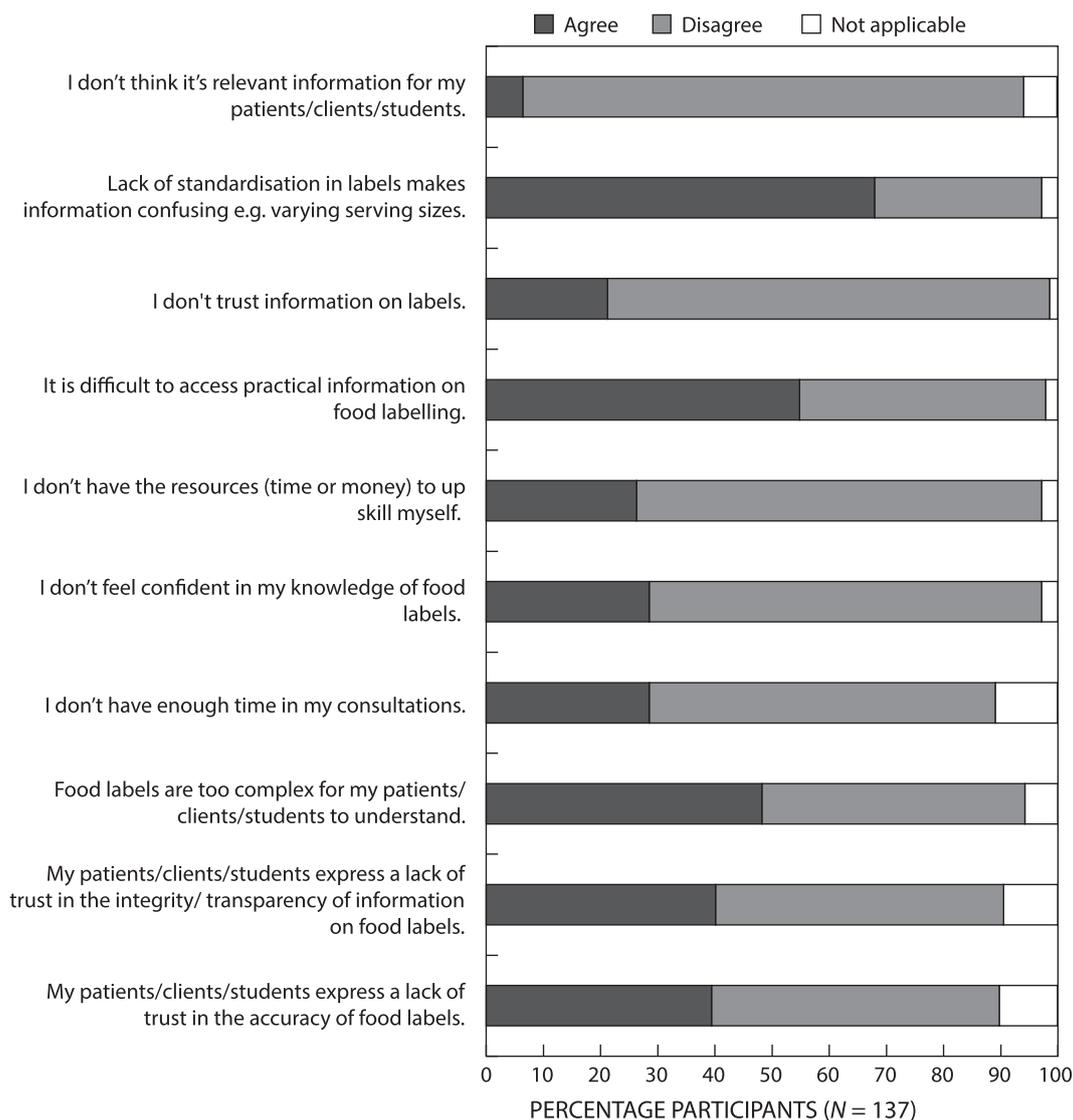


Figure 4: Barriers related to the use of food labels as a nutrition education tool.

individuals,<sup>17</sup> and thus adaptable for the diverse South African population. Internationally, in-store dietitians are perceived as a valuable resource.<sup>18</sup> In-store nutrition label education programmes can successfully improve consumer label use and understanding, and grocery store interventions demonstrate positive improvements in dietary behaviour by promoting healthier food purchases.<sup>18</sup> Similar to the study's findings, dietitian-led store tours are limited in South Africa,<sup>19</sup> providing opportunities for collaboration with retailers to offer this service.

**Use and importance of nutrition-related food labelling**

For client education purposes, the nutrition-labelling aspects most frequently used and regarded as most useful and important relate to a product's nutrient content and composition, namely the nutrition information table, ingredient statement and serving size. Even though participants lacked confidence in, and scored lowest for, their technical knowledge of the regulations, they appeared to be guided by their subject knowledge rather than knowledge of the regulations to interpret compositional information, as they scored highest regarding nutrient content knowledge. Furthermore, good technical knowledge is not required when educating clients about disease-specific nutrients as this is a basic dietetic

skill,<sup>15</sup> for example, addressing a product's sodium content for hypertension management, or when discussing portion control or serving size.

It is of great importance that dietitians frequently include education on numerical aspects of nutrition information, such as the 'nutrition information table' and 'serving size', as research shows many consumers find quantitative information too complex to understand regardless of their literacy levels.<sup>20</sup> Educational materials could encourage dietitians to continue to focus efforts on elucidating quantitative aspects of nutrition labelling to enable better use and interpretation of labels. Furthermore, the mandatory inclusion of the nutrition information table in the draft amendment of the regulations (R429)<sup>8</sup> will be valuable in providing the quantitative information needed for product evaluation.

Participants used nutrient and health claims less frequently and did not regard them as useful and important compared with nutrition information and ingredient statements. Interestingly, only half of participants used and considered nutrition claims as useful and important. Dietitians may mistrust the integrity of nutrition claims when seen on products considered less healthy.<sup>21</sup> Additionally, consumers who use health claims tend

to have poorer diets, and may overconsume foods perceived as healthier such as low-fat or low-energy alternatives.<sup>22</sup>

Dietitian mistrust is not unfounded, as evidence of unsuitable nutrition claims exists: for example, local research on snack products found that a quarter of the products did not comply with current regulations, and less than a quarter would be eligible for a claim once the draft regulations (R429) are promulgated.<sup>21</sup> Current regulations (R146) allow nutrient content claims using strict specifications, and health claims are not permitted. The draft regulations address this gap through the implementation of a conditional prerequisite for nutrient and health claims using a nutrient profiling model.<sup>8</sup> The use of a nutrient profiling model, as recommended in the draft regulation (R429), is a science-based approach to validate the use of claims on food products. However, concerns related to the lack of enforcement and proper evaluation of health claims<sup>23</sup> should be addressed. Regulation of claims will prevent misleading claims on products considered less healthy, and should instil confidence and trust in dietitians to promote greater use of food labels as part of their nutrition education approach.

Health endorsement logos (HELs) were frequently used by participants, and are regarded as useful and important when educating clients. HELs are an example of an evaluative front-of-pack labelling (FOPL) system, which uses several criteria to provide a positive summary indication of the overall healthiness of a food product, thereby interpreting the nutritional value for consumers.<sup>24</sup> South African consumers favour this system when compared with four other FOPL formats for aiding healthier food choices, likeability and comprehensibility.<sup>25</sup> Importantly, dietitians should explain the various HELs to clients to avoid confusion<sup>13</sup> and to enable effective evaluation of products (a single product can display up to five different HELs<sup>26</sup>). Therefore, introducing a single HEL seems preferable, as confirmed by previous studies.<sup>25,26</sup> However, these insights should be considered against more recent research that affirmed positive South African consumer attitudes to warning labels, attributed to ease of understanding and concise education on nutritional composition.<sup>27</sup>

Reference intakes were used the least, namely NRVs and FOPL systems. While the food industry awaits a government-prescribed FOPL system, self-designed GDAs are utilised across brands.<sup>28</sup> Interestingly, though dietitians are skilled at interpreting this complex labelling system, reference intakes are seldom used to educate clients, possibly due to time constraints and clients' education level. Similarly, research shows that, regardless of education levels, consumers find reference intakes the most difficult to understand.<sup>25</sup> The inconsistent use of reference intakes may also contribute to a lack of awareness, confusion or mistrust.<sup>24</sup>

### **Additional food label aspects used for healthiness evaluation and client education**

Comparable to previous research, participants primarily based their evaluation on nutrients and ingredients, and further additional categories: 'a whole food approach', 'marketing and labelling', 'product information' and 'context of diet'.<sup>29</sup> Participants' use of 'level of processing' applies a 'whole food approach' advocating minimally processed foods. Classifying foods according to their degree of food processing enables the identification of less healthy, ultra-processed foods that are typically high in sugar, unhealthy fats and salt, and low in beneficial nutrients.<sup>2</sup>

Similar to previous findings,<sup>29</sup> participants provided mixed responses regarding the use of GMO status, origin/certification claims and animal husbandry to evaluate product healthiness or for client education. While over a third of participants occasionally use both origin/certification and animal husbandry claims to evaluate product healthiness, roughly the same percentage indicated that they would never use these claims. Consumer food choices are increasingly influenced by ethical concerns, sustainability and perceived well-being benefits, such as organic, free range or fair trade claims.<sup>30</sup> But, limited to no evidence exists regarding the nutritional benefits of, for example, consuming organically grown produce or free-range meat, yet consumers may associate these practices with health benefits.<sup>29</sup> The mixed responses suggest that participants are either ambivalent, lack knowledge<sup>29</sup> or choose not to impose their opinions on clients, despite personal beliefs. Furthermore, this may demonstrate dietetic skill in selecting the most appropriate labelling aspects for differing needs.<sup>15</sup>

### **Training, self-reported knowledge and confidence in knowledge**

Participants' self-reported knowledge and confidence in knowledge are adequate to enable the use of labels as educational tools. Thus, they perceive their knowledge and understanding as sufficient to enable confident client education. This is despite half of participants receiving inadequate undergraduate training in food labelling, and less than two-thirds remaining up to date with their knowledge. In addition, regarding regulation-specific knowledge, only half of participants expressed confidence in their knowledge of permitted nutrition information and of mandatory requirements. These findings show that participants made use of labelling as an educational tool despite many reporting low confidence and scoring poorly on technical knowledge. Thus dietitians may not require in-depth technical knowledge in order to make use of labelling as an educational tool. Rather, better technical knowledge could address barriers to label usage.

### **Barriers to label use**

Several barriers to label use as an educational tool in this study relate to clients who lack trust in the accuracy, integrity and transparency of information, lack of standardisation, label complexity, and poor patience during the consultation process, corroborating consumer sentiments from local and global publications.<sup>10,20</sup> These are important issues that could guide future labelling updates.

Label trustworthiness is important and worth elaborating on. Trustworthy and accurate labels can influence consumer label usage as they are likely to be positively perceived and trust is regarded as a prerequisite to label usage.<sup>20,25</sup> Participants agreed that unstandardized labelling practices are confusing and contribute to client mistrust in food label integrity. While mistrust is justified where there is evidence of poor compliance,<sup>21</sup> mistrust may be unfounded owing to the dietitian's lack of technical knowledge of the regulations. For instance, it was apparent from the nutrition-knowledge questions that two-thirds of participants were not aware that the presence of the nutrition information table varies, as it is currently optional for food manufacturers to display this information and is only required if making a nutrient content claim. This incongruence may be viewed by some as a flouting of the regulations, potentially promoting mistrust and perception of a system unable to enforce adherence.

Furthermore, unstandardized manufacturer-led serving sizes create confusion and food industry mistrust as this limits fair comparison among products. Mandating the standardisation of serving sizes could address the negative perception of labelling inconsistencies that undermine label trust and integrity.

Despite these irregularities, overall most participants have a positive attitude to food labelling as a nutrition education tool, trusting in its efficacy and relevance. Most dietitians believe the profession is sufficiently knowledgeable and skilled, and should play a greater role in educating consumers in food and nutrition labelling.

### Enablers to increase food label use

Most participants agree that further training would improve their ability to use labels as educational tools, demonstrating that training could promote greater label use in a variety of sectors. Official informative resources are lacking as many participants found it difficult to access practical resources, being reliant on peers or interest groups. While over half sourced information directly from the regulations, deciphering complicated technical jargon may be a deterrent. Therefore, an opportunity exists to provide resources through collaborations with the NDoH, academia and professional organisations. Improving undergraduate training, online resources, CPD activities and label integrity will address barriers.

### Limitations

Whilst electronic surveys are convenient data-collection tools, specifically during the COVID-19 pandemic, this may have resulted in loss of participants through incomplete survey responses and 'survey fatigue'.<sup>31</sup> Additionally, due to the nature of an electronic survey, probing questions to further clarify participant responses were not possible.

### Strengths

The targeted sample size was reached, and participants were representative of the South African dietetics profession.

### Conclusions

Overall, dietitians use labels as nutrition-education tools with confidence, regard labels positively and understand their importance in the context of the profession, but they lack knowledge concerning the current labelling regulations. Nutrients and ingredients are labelling elements frequently used to educate clients, and HELs are favoured. Non-nutrition-related label aspects, such as cooking method and level of processing, are used to evaluate product healthiness. Client circumstances such as education level and food insecurity guide labelling use as an educational tool. To increase label usage and to ensure sufficient knowledge and upskilling of the profession, issues of standardisation, trustworthiness, timeous labelling updates and continuing education must be addressed. Furthermore, the draft regulations need to be promulgated with urgency to support dietitians in using labelling that is more aligned with current international standards.

Dietitians play an important role by promoting optimal label use as part of nutrition education interventions and can support labelling policy implementation.

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## Appendix: Open-ended comments

A summary of the emerging themes from the optional open-ended comments per study objective appears in Table A1.

Table A1: Themes emerging from optional open-ended comments

Study objectives	Themes and open-ended comments
Awareness/knowledge of regulations	<p>Lack of confidence in knowledge:</p> <ul style="list-style-type: none"> <li>• 'Aware of the basics, but need to be more up to date – not sure where to obtain all the latest information'</li> <li>• 'I am knowledgeable in basic food labelling (so how to interpret calories, carbs, etc. low cholesterol, sugar, salt). But not too clued up on much more than that'</li> <li>• 'I feel quite confused about the labelling and advertising regulations'</li> <li>• 'I am only going on what I learnt years and years ago, so this was tough to answer as I am not up to date with any changes'</li> </ul>
Behaviour and practices	<p>Education and need state:</p> <ul style="list-style-type: none"> <li>• 'The level of education of clients influences whether or not I discuss nutrition labelling with them'</li> <li>• 'The food label is only an acceptable tool for a patient that can read'</li> <li>• '... depends on how much patience they have'</li> <li>• 'Product cost the ultimate filter in thought/discussion'</li> </ul> <p>Consultation frequency:</p> <ul style="list-style-type: none"> <li>• 'If I only see them twice there is often no time to cover food labelling. I cover this only in follow-up sessions'</li> </ul>
Usefulness and importance of nutrition labels	<p>Standardisation:</p> <ul style="list-style-type: none"> <li>• '100 g analysis is more important than serving size – each manufacturer decides on a serving size, making comparison difficult'</li> <li>• 'I don't use kJ only calories'</li> </ul> <p>Understanding labels:</p> <ul style="list-style-type: none"> <li>• 'Dietitians need to have a good understanding of all of these aspects, whether it is relevant, true or accurate'</li> </ul>
Barriers	<p>Food insecurity/education:</p> <ul style="list-style-type: none"> <li>• 'For clients who are struggling with food insecurity and poorly educated, nutrition labelling is not a priority'</li> </ul> <p>Mistrust:</p> <ul style="list-style-type: none"> <li>• 'I trust some brands, but not others'</li> <li>• 'Ineffective monitoring by the authorities promotes public mistrust and confusion'</li> <li>• 'It's difficult to answer clients who doubt the fairness and accuracy of anything presented on a food label. They don't trust the information ...'</li> <li>• 'Smaller manufacturers provide information not in line with the regulations'</li> </ul> <p>Resource limitations:</p> <ul style="list-style-type: none"> <li>• 'Some resources are just too complicated and way too long'</li> </ul>
Enablers	<p>Continuing education:</p> <ul style="list-style-type: none"> <li>• 'It would be great to have user-friendly question and answer type documents from the DoH providing interpretation into the legal jargon ...'</li> <li>• 'I think collaboration between DoH and academia would be a good avenue to follow'</li> <li>• 'The food industry should also play their part'</li> <li>• 'We need it in simpler terms ...'</li> <li>• 'Just send me an email with a summary of the latest – time is a limiting factor'</li> <li>• 'Unfortunately, I wouldn't pay – if ADSA could come up with summarised resources for us that would be great'</li> </ul>