

Scottish Food Practices:

Household food practices and the use of
dietary information

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The Centre for Research in Public Health and Community Care (CRIPACC) is a multi-disciplinary research centre based at the University of Hertfordshire in the School of Health and Social Work. The Centre's research is focused primarily on understanding and improving people's quality of health and wellbeing and improving delivery of services, working closely with local communities.

Executive Summary

This report presents findings from The Scottish Food Practices study, designed to investigate what and how households across Scotland use dietary information (if at all) when cooking/eating at home, shopping for food and eating outside the home.

Aims

The study aims to inform the work of Food Standards Scotland (FSS) as they develop new dietary guidance that is accessible and suitable for different population groups in Scotland. The study explores the extent to which dietary information was available, and how it was perceived and taken into account by households when cooking, eating and purchasing food, both in and outside of the home.

Methods

The study adopted an in-depth qualitative approach with ten households, including those on low incomes, families with younger and older children, single-person households and older adults. Participants were recruited via networks of third sector and food advocacy organisations, as well as via NHS and FSS contacts. Fieldwork with participating households took place between January and March 2020; it ended earlier than planned, due to the social distancing restrictions put in place to control the COVID-19 outbreak.

The research design comprised of three visits with each household.

1. A semi-structured interview was carried out with the key participant (and other household members if they wished), followed by a photographic 'kitchen tour'. Participants were asked about their typical patterns of cooking/eating at home, food shopping, and eating outside the home, with particular reference to dietary information.
2. A video-recorded food shopping trip was conducted with the household member who was primarily responsible for food shopping in each household.
3. An observation took place with one or more household members when 'eating out of home'.

Findings

Across households, participants reported having a good general understanding of dietary information. Nonetheless, this knowledge seemed to be inconsistently or rarely applied by households when purchasing food, or when eating in and out of the home. This was a

consequence of participants' apparent misunderstanding of some of the information available to them, contradictions in guidance as perceived by participants, and participants' reliance on knowledge gained through their own lives or experiences (experiential knowledge). Price was the key deciding factor informing participants' food purchasing decisions, except in cases where health conditions and/or special dietary requirements made it essential to pay closer attention to dietary information on food packaging.

Conclusion

The research provides some pointers for FSS regarding the development of dietary guidance in terms of clarity of information required by consumers. This relates to addressing the interpretation of traffic light labelling and the incorporation of guidance into a healthy diet for those living with/shopping for specific health conditions, allergies, intolerances or preferences. Using price and 'value for money' could be a way to leverage healthier food choices in Scotland. Experiential, 'common sense' knowledge is important to households therefore an understanding and awareness of this, including among health care professionals, is important when considering the acceptability and efficacy of dietary guidance or information. COVID-19 has impacted on many aspects of food and eating for people in Scotland, perhaps especially so for those whose income, health or vulnerability has been affected in some way. Finding ways to support households to manage their physical and mental health and dietary preferences/needs, despite these ongoing challenges, therefore continues to be important.

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Background

The latest findings from Scottish Health Survey (Cheong et al., 2020) indicate that 22 per cent of adults in Scotland are consuming the five recommended portions of fruit and vegetables per day (known as '5-a-day') and 10 per cent report that they consume no fruit or vegetables at all. This has changed little since 2003 and diets remain of relatively poor quality across all socioeconomic groups. However, those who are the most socioeconomically deprived, on average, have a poorer diet than those who are the least deprived (FSS, 2018c).

The food and drink we obtain from outside the home, in cafes, restaurants and from takeaways, 'tend to be less healthy' (FSS, 2018c, p. 15). Food purchased for consumption outside of the home in Scotland tends to be driven by factors such as enjoyment and convenience, rather than by health (FSS, 2018b). Approximately half of Scottish adults think that lowering the price of healthy options (57%), providing more healthier options (55%), providing better promotional offers on healthier options (46%) and showing the calories on food menus (43%) would make it easier for them to eat healthier food outside of the home (FSS, 2019a).

In 2018, the Scottish government published 'A Healthier Future: Scotland's Diet and Healthy Weight Delivery Plan' to reduce diet related health inequalities and childhood obesity by 2030 in Scotland (The Scottish Government, 2018). In 2016, the national UK government published the Eatwell Guide to provide dietary advice to consumers about what a healthy and balanced diet consists of (Public Health England, 2016). The overall aim of this study was to understand Scottish households' food and eating practices in and outside of the home in relation to dietary information.

Throughout this report the following terms are used, in accordance with our correspondence with FSS.

Dietary Guidance

For the purposes of this report, 'dietary guidance' refers to a new resource in development at FSS (FSS, 2016). This project was designed, in part, to support the progress of a Dietary Guidance resource for Scotland. The resource will have a broad focus and will include practical, pragmatic advice to assist different sectors of the population to move towards the Eatwell Guide and the Scottish Dietary Goals (FSS, 2019b; The Scottish Government, 2016). It should be noted that the new resource will not supersede the Eatwell Guide. The nutrition advice in the Dietary Guidance Resource will supplement the Eatwell Guide, with advice on taking small steps to behaviour change. FSS are developing this resource with technical

contractors and experts in behaviour change and food culture. Project work has tested out concepts with both consumer and stakeholder focus groups (FSS, 2018a).

Dietary Information

Here, this refers to information provided by public health bodies, including FSS, to advise the public about what a healthy diet consists of.¹ Accordingly, FSS state that a healthy, balanced diet is based on fruit, vegetables and starchy foods, with some dairy, meat, fish, pulses and other kinds of protein and small amount of fats and oils. Advice to the public includes directing consumers to the Eatwell Guide, to help them stay at a healthy weight, to lower their risk of poor health. FSS nutrition advice also covers eating out of home, hydration, vitamins and minerals and cutting down on fat, sugar and salt.

Front-of-Pack Labelling²

Front-of-pack labelling is also colloquially known as the food 'Traffic Light' system. Using Front-of-pack labelling, consumers should be able to have confidence in their food choices and be able to buy according to their particular requirements, at a glance. Front-of-pack labelling (FOP) refers to the information provided on food packaging, to help consumers see what is in their food. Food labels are colour-coded red, amber and green and highlight the 'percentage reference intakes' (formerly known as guideline daily amounts), to show how much fat, saturated fat, salt, sugar and energy is in a product, relative to the maximum recommended for a healthy diet.

¹ This information can be found here: <https://www.foodstandards.gov.scot/consumers/healthy-eating/nutrition>

² FSS guidance about FOP can be found here: <https://www.foodstandards.gov.scot/consumers/food-labelling>

Research Design

Household Recruitment and Informed Consent

Participants were recruited via networks of third sector and food advocacy organisations, as well as via NHS and FSS contacts. The research team put out a call for participants via these networks, as well as by doing outreach work in community centres and at organisations' events. Potential participants contacted the research team via e-mail or telephone, expressing an interest in taking part in the study. After this initial contact was established, researchers arranged a time to speak to potential participants to explain the scope of the study and its research design. These phone calls were also used to complete an initial Household Questionnaire with participants (see Appendix A), to collect household demographic data and to get an overview of food purchasing, eating at home, and eating out of home ahead of the first home visit and interview. During the first interview, researchers went through a detailed consent form with participants in each household, before data collection commenced. Written consent was then obtained from each individual in participating households. The form was revisited at the final household visit, when the participant was asked whether they consented to their data being used in specific ways. This is particularly important when visual data (photographs and video footage) have been collected (Wills et al., 2016), to ensure participants are comfortable with their household being visible in research outputs. Participants were asked whether they wanted to give consent for their visual data to be used in presentations, journal articles or online. Of the eight households that were revisited for a final visit, five consented to their visual data being used in all scenarios. However, three households consented to their visual data being used only when contacted for permission prior to use, only for research/teaching purposes (e.g. presentations or publications) or only if images are pixilated.

Methods

The study adopted an ethnographic approach, employing multiple qualitative methods with each household, including:

- An in-depth semi-structured interview following a Topic Guide (see Appendix B) was conducted with each key participant (and other members in their households if they wished to take part in the interview). Participants were asked about their typical patterns of cooking/eating at home, food shopping, and eating outside the home, with particular reference to dietary information.

- A photographic ‘kitchen tour’, in which participants were asked to show researchers where food was stored, prepared and consumed. Photographs of these places in participants’ homes were taken by researchers with the cameras on their smartphones.
- A ‘go along’ interview (Wills et al., 2016) and observation during a food shopping trip. These were video recorded using GoPro cameras.
- A ‘go along’ interview and observation whilst eating out; researchers accompanied participants to a food outlet they routinely frequented.
- A final follow-up semi-structured interview.

Data Analysis

Audio-recorded interviews were professionally transcribed verbatim and pseudonyms were assigned to each participant. A thematic approach was taken to analyse the dataset. Interview transcripts were coded by researchers to identify key themes and these were rigorously discussed within the research team to clarify nuanced aspects of the analysis. Notes were made about photographs from the ‘kitchen tours’ and video footage from shopping trips and these were incorporated into the overall analysis and coding frame. The visual data were also drawn on to complement the interview data, showing what participants did, which helped to elaborate or clarify the way they accounted for their food and eating practices during interviews.

Household Case Summaries were then written for each household, to more easily compare key findings across participants. Summaries included household demographic details and an overview of findings in relation to the following key themes:

- Household dietary requirements (including intolerances, allergies, and special diets)³
- Food shopping (including type of outlets used, typical routine/strategy and reasons for purchasing particular foods/products (e.g. price, sustainability))
- Household use of dietary information and knowledge (including use of food labels, knowledge of managing specific health conditions through diet)
- Cooking at home (including use of recipes, strategies and routines)
- Eating at home (including eating together, takeaway meals and routines)

³ Includes both diagnosed and self-perceived intolerances/allergies, as most participants did not specify.

- Eating outside the home (including where and influence of issues such as health, diet or childcare)

Findings

The following section presents the key findings from this study. First, an overview of the households included in this study is provided. The findings then focus on what participants said they know about dietary information and where they acquired this from; and how households use dietary information. Findings relating to contradictions in food practices and the role that price plays in food purchasing and consumption are then described. Case summary boxes have been included to provide further in-depth insight about some households, to further illustrate the key findings of this report.

Households

Table 1 presents a description of the key participants (using pseudonyms) and the households they live in, including additional information related to food and eating practices. The study includes a wide range of household types, including: five single-person households; two dual-parent households; one single-parent household; one retired couple household; and one multi-generational household. Households varied in terms of income, educational attainment, housing tenure and employment status. Most participants also lived with or had a family member with a health condition or a food allergy/intolerance that influenced their food and eating practices, for example, diabetes, arthritis and coeliac disease.

Table 1: Description of key participant (KP), their households and additional information related to food and eating. All names stated are pseudonyms

KP Pseudonym	Household Composition	KP Age	KP Gender	Employment Status	KP's Educational Attainment	Additional Information (related to food and eating)
Freya	Single-parent household; older children visit/stay occasionally	50-60 years	Female	Employed (full-time)	Degree	Son has eczema and is vegan with food allergies and intolerances (nuts, lactose). Daughter is vegan, allergic to nuts and lives with an eating disorder.
Rob	Single-person household	50-60 years	Male	Unemployed; in receipt of benefits	Scottish Highers	Has type 2 diabetes.
Jackie	Dual-parent household; two-year old son	30-40 years	Female	Employed (part-time). Husband employed (full-time)	Degree	Jackie is vegan and eats a gluten-free diet. She also lives with arthritis, which is managed with medication and diet.
Lucy	Dual-parent household; two sons (aged 2 and 11 years); KP's mother also lives with them	30-40 years	Female	Employed/self-employed (full-time). Husband self-employed (full-time)	Postgraduate degree	Lucy and both sons have an immune condition that restricts what they can eat. One son is also allergic to several foods. KP's mother has a lung condition.
Stuart	Single-person household	50-60 years	Male	Unemployed; in receipt of benefits	Scottish Highers	Stuart is trying to lose weight.
Sara	Single-person household (with assistance dog)	30-40 years	Female	Unemployed; in receipt of benefits.	Degree	KP is a wheelchair user and lives with a long term condition
Sandra	Single-person household. Rents spare room to Air BnB guests	60-70 years	Female	Retired	Degree	Interested in switching to a plant-based (vegan) diet. Recently widowed. Air BnB guests eat with her.
Michelle	Two-person household; married couple	70-80 years	Female	Retired	Professional qualification	KP is vegetarian, husband is not. Husband grew up in Europe.
Maggie	Dual-parent household; one 18-month old son	20-30 years	Female	Student	Postgraduate degree	Both state they are 'flexitarian', partly for health and 'lifestyle'.
Valerie	Single-person household	30-40 years	Female	Employed and self-employed (full time)	Postgraduate degree	Recently moved to a new flat where she lives alone. Previously lived in a house-share.

Acquiring Dietary Information

Most households could not articulate where they acquired knowledge about dietary information from. It was widely accepted that this knowledge was something they had grown up with, rather than something that they had specifically been seeking out. Michelle's husband, who had grown up in Europe previous to moving to the UK, said:

"Yes. I can just eat. All of my life I've never had this idea, "I must eat this less, or that more," or so on. I'm just eating what's there, so to speak, and I eat anything. I've always had the same sort of weight relative to my height and so on. I've never been fat, and I feel healthy. I am healthy, you know." (Michelle's husband; Dual-person household; Michelle has vegetarian diet)

Of those households that were able to say where they accessed or acquired information about diet, the main sources were magazines, social media (e.g. Twitter, Instagram and Facebook), friends, family and popular television shows about diet and health. Sandra said: *"I love Michael Mosely's programmes, love them, and he was doing the 5:2 diet at the time and I thought 'I'll try that'."* In addition, some participants also reported using recipe books and websites as sources of dietary information. In households where one or more members had a health condition, allergy, food intolerance, or other special dietary requirement (e.g. a vegan diet), food labels and packaging were considered important for obtaining dietary information, particularly when food shopping:

"Anything that's an allergen now, they put in bold - which gets a bit annoying because there's an awful lot of bold things sometimes, but... That makes it easier." (Freya; Single-parent household; Dietary intolerances and vegan diet)

"A lot of gluten-free food you read the back, it's got milk in it or it's got cheese in it. So, trying to get both if you want to buy something that's been made for you rather than make it from scratch, you tend to have to read the backs." (Jackie; Dual-parent household; Dietary intolerances and vegan diet)

Whilst dietary information was discussed as extensively available by participants, ultimately most households tended to discuss this information as 'common sense', so they did not go out of the way to seek it out unless they were particularly interested in food and nutrition (for either personal or professional reasons).

Using Dietary Information

On the whole, participants stated that they were aware of existing dietary information and tried to integrate this into their dietary practices. Although, few stated specifically what information or guidance they were referring to and typically discussed this in terms of “*the guidance*”. Half of the participants independently mentioned the “*traffic lights*” system (or “*those green, orange, amber things*”) and three referred to “*five a day*” guidance. However, some stated that information was not “*visible*”, or that there was contradictory or inconclusive evidence to support dietary guidelines:

“Mainly because of my work, I think, I’m very aware of the guidance and try to increase our amount of veg and decrease our amount of processed meat. But it’s because I have an interest in it, not because it’s particularly visible, and also there seems to be so many arguments about whether or not the healthy plate is actually what it should be, despite the fact that actually we’re all eating so differently, whether or not it’s slightly wrong, we do things a bit differently as a nation.” (Lucy; Dual-parent household; Health conditions and dietary intolerances)

Participants predominantly stated that having a “*balanced diet*” or eating “*everything in moderation*” was important. ‘Balance’ and ‘moderation’ were defined mostly as a balance between specific nutrient groups, mainly carbohydrates, sugar, salt and fat. However, participants did not specify if they knew how much of these nutrients should be consumed, and mostly used food groups to determine whether a meal was ‘balanced’ or not:

“So, something might have a lot of carbs in it. You know, that’s a lot of carbs. I mean, I know that cereal is mostly carbs. I don’t need to read a packet to tell me that, and I think I’m quite educated in that way... So, you know, I know potatoes is carbs. So, you don’t put potatoes and macaroni cheese on your plate - that’s madness... I know roughly what fats and things - you know, cheese is mostly fat. So, if you’re going to have cheese, don’t have something else fatty with it. It’s kind of just... it’s common sense.” (Freya; Single-parent household; Dietary intolerances and vegan diet)

Alongside the larger food groups, for those with specific dietary needs there was a particular focus on vitamins and minerals. But again, participants did not specify how much of these nutrients should be consumed to achieve a “*good balance*”. For instance, Jackie, who has early-onset arthritis and has a vegan and gluten-free diet, stated that she does not look at the

“calorie content” but tends to “look more at the nutritional profile”. She says this is necessary because of her health condition:

“So has that got a good balance of, I mean I’ve not had the best lunch, but has that got a good balance of vegetables, protein, carbs, and because I’m dairy free and gluten free, am I getting enough B12, am I getting enough calcium? I obviously have a bone condition, so am I getting enough calcium?” (Jackie; Dual-parent household; Dietary intolerances and vegan diet)

The main sources of dietary information on food packaging that participants reported making use of were ingredients lists and traffic-light labels, particularly to check for sugar, salt and fat content. Some participants did seem to pay attention to this during shopping trips, although in most instances this information was considered either “not helpful” or ignored when deciding what to purchase. For example, if participants particularly liked a certain product that had lots of red traffic light labelling, they purchased it regardless.

In the households with members who have a dietary intolerance, health condition or special diet (e.g. vegetarian), the ingredients list of pre-packaged food was predominantly used to determine whether suitable or not. For example, Lucy’s sons have an immune condition and one son also has food allergies. Lucy’s mother stated that she had trouble reading the back of food packaging, making it difficult for her to assess whether the product was suitable or not. In Freya’s case, she had to consider food intolerances and her son’s vegan diet. This meant that if she was purchasing a pre-packaged product for the first time, she often had to read the ingredients list. But the labelling is not always informative or clear:

“I do have a problem with the contents on some products, the ingredients, they’re so tiny, the writing. When you’re in the supermarket and you’re trying to look at whatever [...] It makes it impossible for me to read quickly. You know, if you’re stuck for time and you’re doing your shop quite quickly, you don’t have the time to be going through those little words” (Lucy’s mother; Dual-parent household; Health conditions and dietary intolerances)

“The first time I go, I have to read everything [ingredients] obviously, but you get to learn what you can and can’t buy. [...] Things like nuts and things tend to be in bold. Milk tends to be in bold. Anything that’s an allergen now, they put in bold - which gets a bit annoying because there’s an awful lot of bold things sometimes, but... That makes it easier. [...] When they say things like, may contain traces of - it drives me nuts because that’s just a stop. We’re

covering ourselves just in case. It's not helpful advice.” (Freya; Single-parent household; Dietary intolerances and vegan diet)

Across most of the households, a product's expiration date was considered useful when food shopping. The term “sell-by” was most commonly referred to when discussing expiration dates. However, some also used this interchangeably with terms such as “best before” and “use-by”. Those wanting to access this information did so due to food safety concerns, and a desire to avoid food waste. For example, Rob stated that he checks both the “sell-by” and “best before” dates on food before he purchases it because *“if you get it wrong, it's [food] poison, isn't it? So, I really am careful.”*

The expiration date was also used as a means to save money. Sandra, for example, actively purchased food products deemed at the end of their “use-by” date and this was part of her daily food shopping routine. What was available at a reduced price in the supermarket determined what she would eat in the evenings:

“I often go shopping three o'clock, four o'clock, and if I'm out that's a good time to be coming back because that's when they reduce everything in our local supermarket. And things are dictated by the price, I'd like to tell you I plan meals, but I don't. I just see what's on the shelf and pick things up and take them home and then decide what I'm going to make with them.” (Sandra; Single-person household; No dietary requirements)

Whilst participants generally appeared to have a better awareness and understanding of the expiration dates in comparison to other dietary guidance, not everyone thought that this information was as clear as it could be. For example, Rob questioned exactly what the term ‘best before’ refers to:

“When it says, ‘Best before,’ makes me think, ‘What does that mean?’ ‘Best before,’ and it's maybe got another couple of days and you're thinking, ‘Well, if it's best before, why not say, “Eat today”?’ Why not just have that on the label?” (Rob; Single-person household; Type-2 Diabetes)

This comment by Rob is emblematic of some of the misunderstandings and confusion with dietary information that ultimately led participants to trust experiential knowledge (based on their life experience and ‘rules of thumb’) more than explicit guidance and information, which led to contradictory practices.

Contradictions in Food Practices

As shown above, participants reported having a general understanding of what a 'healthy' or 'balanced' diet is, including what kinds of foods or nutrients should be 'avoided' (e.g. sugary foods, foods containing high levels of saturated fat) and/or actively encouraged. Nonetheless, this knowledge seemed to be inconsistently, or rarely, applied in practice.

Experiential knowledge, such as familiarity with certain foods, cultural heritage, and 'common sense' knowledge, played a significant role informing households' food practices, meaning that they chose to disregard certain aspects of explicitly available dietary information. Michelle's husband, for example, expressed this tension quite clearly when stating that, regardless of his awareness of dietary guidance that suggests it is advisable to limit one's sugar intake, he trusted his own experience more:

"I've got a sweet taste. Coffee with quite a lot of sugar in it and so on. At least two or three scoops. But what all the people say, "That's unhealthy." Well, not for me. I feel well, so I'll keep doing it." (Michelle's husband; Dual-person household; Michelle has vegetarian diet)

Case Summary 1: A closer look at experiential knowledge – Maggie

Maggie and her partner, a couple in their mid-20s with an 18-month-old son, spoke about wanting to 'eat healthy' throughout their interview: to them, this meant eating food cooked from scratch using fresh ingredients. Whilst both seemed confident in this shared general idea about what constitutes a 'healthy' or 'balanced' diet, some contradictions nonetheless emerged during the conversation when discussing the '5-A-Day' guidelines. When asked about how this guidance shapes the household's cooking practices, Maggie's partner said: *"I don't think about it in numbers, we think more like oh, we should put some vegetables in this, because it usually does have vegetables."* He added that it was easier to know if they were meeting these guidelines in the past, when the couple had used a recipe-box delivery scheme: *"They do make it very clear how many of your five-a-day's in that meal, which I don't usually know if I'm just making it myself."* Maggie, on the other hand, said that she does know if she's had '5-A-Day'. When her partner asked how she knows if *"she's hit it"* she said: *"I've had an apple, orange and a banana, and then we've got dinner."*

These general rules of thumb also guided Maggie's eating out of home practices. When asked about how she decides what to eat out of the home, she said: *"When I get a drink [at a café], I'm kind of aware that if I've gone for something quite sweet or sugary, or whatever, then I should go for just a regular tea, but if I've gone for something quite healthy then I'll probably get hot chocolate, and you know, balance it out like that."* Maggie and her partner, like other participants, reported having a good general grasp of dietary guidance, but in practice this guidance seemed to be generally understood and applied vaguely.

The notion that 'common sense' knowledge was sufficient to know what to buy and eat was often quoted across households:

*"No [we don't use traffic-light labels], we generally know if it's got lots of fat in it. I think we're quite aware of processed food like biscuits or chocolate, or...we know what we're buying really, don't we, when it comes to sugar, fat and salt."
(Lucy's mother; Dual-parent household; Health conditions and dietary intolerances)*

Participants also reported making exceptions when following dietary guidance or advice when purchasing, cooking or eating food that they particularly liked.

Case Summary 2: A closer look at experiential knowledge – Rob

Rob is 54, living on his own, unemployed and in receipt of benefits. He was diagnosed with type 2 diabetes a few years ago and he explained this has significantly changed his food practices. He detailed at length the kind of precautions he now takes to make sure he “eats healthy.” Particularly, that he pays attention to labels on the products that he buys in supermarkets and makes sure he cooks and eats as much fresh food as possible – adding that he is careful about how much fruit he eats, since he needs to regulate his sugar intake. During the accompanied shopping trip, he checked the traffic-lights labels on the products he purchased, always checking that the sugar rating was shown as green or amber.

Nonetheless, whilst showing a good general awareness and understanding of the dietary guidance that is useful to him, Rob also had developed his own knowledge system to ‘balance’ his diet with his heavy consumption of alcohol. He explained: *“I had one pint this morning, one bottle [of cider] yesterday, one can at my sisters’, and the day before it was one bottle [of cider]...just to be able to get out of the house a wee bit, even if I wasn’t feeling so good [...] because a bottle of Magners has quite a lot of sugar in it, it means I know that I can’t eat nothing at all with sugar. I know I can have a little bit, but I also say completely no, which helps me even more if you know what I mean [...] so it gets me out of the pub and then when I go home I know I have to eat fresh-fresh-fresh, and nothing with sugar. Because all foods have a bit of sugar in them...even fruits, but that’s a different type of sugar.”* Similar to other participants, Rob used his own experiential knowledge, based on a number of factors which included, but did not rely exclusively, on the use of dietary information.

The social value of cooking for others and eating together seemed to be important in most households, and in households with multiple members the main meal of the day tended to be one which was consumed together. Having company during a meal was also described as a pleasant experience by participants in single-person households:

“I had my neighbour through a few days ago, he came. Because when I make something, I usually have loads even if I’ve got some left over. So, I said, ‘Do you want to come through and have some dinner?’ That was nice.” (Sara; Single-person household; Wheelchair user with long-term health conditions)

Take-away meals were generally considered to be ‘less healthy’ (and accepted as such) so considered more as an occasional ‘treat’; consequently, dietary information, such as

salt/sugar/fat content, did not inform participants' decisions when choosing take-away food, unless intolerances, allergies or other dietary requirements were being considered.

Challenges when Interpreting Information

Whilst participants generally reported having a good understanding of dietary information, not everyone thought that this information was as clear as it could be when shopping for food. Participants talked about their confusion when looking at available on-pack information, sometimes struggling to understand what is written on products, or finding there is lack of consistency in the presentation of information:

"I used to read for the percentage of fat content, and I was looking for under 5%, but now that I'm reading the labels again a bit more carefully, I don't think it's done like that anymore. I'm seeing per 100g and all the rest of it, and frankly I don't really know, apart from the traffic-light system, how to interpret some of that stuff." (Sandra; Single-person household; No dietary requirements)

"I do have a problem with the contents on some products, the ingredients, they're so tiny, the writing. When you're in the supermarket and you're trying to look at whatever, there was something here, I can't remember what it was, that I missed out that there was soya in it, so I would just put that in as a thingy, that the ingredients are too small a font on the back of some packages. It makes it impossible for me to read quickly. You know, if you're stuck for time and you're doing your shop quite quickly, you don't have the time to be going through those little words." (Lucy's mother; Dual-parent household; Health conditions and dietary intolerances)

Some participants who explained that they did pay particular attention to dietary information said they found it was sometimes quite difficult to follow this advice in practice because of the processing of certain food products:

"I'm trying to avoid refined sugar. I don't think you can completely avoid it, actually [...] So pre-made sauces and pastes and stuff like that, I tend to look for - have they added sugar rather than what's the fat content." (Jackie; Dual-parent household; Dietary intolerances and vegan diet)

Jackie's comment was similar to the contradictions that some participants described, between what they knew about specific nutrients (e.g. fat and sugar) and what they said about foods

typically marketed as healthy, such as 'low fat', 'sugar free' or 'diet'. Whilst it was generally understood that foods containing high levels of sugar or fat should be restricted, most said that they did not trust foods that were labelled as 'low fat', 'reduced sugar' or 'diet':

"If it says, 'Additives,' I'll sort of give it a miss because I don't know what they're talking about. And then, there's other brands that you can get, and it says, 'Contains no sugar, contains no salt, contains no this.' And it does not say nothing about additives." (Rob; Single-person household; Type-2 Diabetes)

"I wouldn't pick diet cola because I've heard that diet cola has as much crap chemicals as the normal cola, stuff in it [...] Or the zero sugar: how are they substituting the...because it still tastes the same. So, what are they putting in it to take out the sugar? So, I'm a bit sceptical of that." (Sara; Single-person household; Wheelchair user with long-term health conditions)

For many of the participating households, having to manage food intolerances/allergies, health conditions, or special dietary requirements was an important deciding factor informing food practices in and out of the home. Household members accessed and used dietary information to varying degrees to balance their individual circumstances, avoid harm or risk, and ensure that they were able to manage their conditions successfully. In households where one or more member had a health condition, intolerance/allergy, or other special dietary requirement (e.g. veganism), cooking from scratch was considered important to manage these. This also often guided how food practices changed within households:

"A lot of gluten-free food you read the back, it's got milk in it or it's got cheese in it. So, trying to get both if you want to buy something that's been made for you rather than make it from scratch, you tend to have to read the backs." (Jackie; Dual-parent household; Dietary intolerances and vegan diet)

"It's extra work now [to cook everything from scratch] because I'm working away from home, it can be more, but I also find cooking very relaxing and enjoyable [...] sometimes I see it as work, which is why we now have pizza every Friday. I would have before tried to have made those pizzas from scratch, whereas we don't now, but you know, by the end of the week it's kind of enough." (Lucy; Dual-parent household; Health conditions and dietary intolerances)

When there is little or no information available, for instance when eating out or purchasing a takeaway meal, participants typically used their own judgement, as well as their familiarity and trust with the food outlet or owners:

“There is - and there’s one particular Chinese [takeaway] that’s not here - it’s a bit further away - and they have a child with a nut allergy. So, I can phone them up and say, it’s for Aston - he’s nut allergic - and they have a separate part of the kitchen and I’ve seen it... And I trust them.” (Freya; Single-parent household; Dietary intolerances and vegan diet)

All the households reported that they enjoyed cooking and eating at home. Participants cooked at home for pleasure and to ensure that they knew what was in their food, in terms of nutrition and salt/sugar/fat content.

Price: A Key Decision-Making Factor

Across households, price was the main deciding factor informing food purchasing practices, suggesting that price comparisons are generally easier to interpret and understand than dietary information. Offers and discounts were appreciated by all participants:

“I do like a discount and it tends to be more that I will look in the reduced sections for things and at work, you know, keep an eye out for what’s there, on the take but yeah, reduced sections for things in supermarkets.” (Valerie; Single-person household; No dietary requirements)

For some, it was also common to ‘shop around’ to find the best bargains:

“If I want to get porridge, I’ll see what price it is in one shop, then I’ll go to the next one and if it’s cheaper in the next one, I’ll get it from there [...] And the same with my cereals, like my cornflakes or my Weetabix or my muesli. I do not mind going to one, two, three or four and then going, ‘Right, I’ll go back to that one because that’s the [cheapest option]’” (Rob; Single-person household; Type-2 Diabetes)

Choosing good value for money was discussed by participants in initial interviews, but the extent to which this mattered was most evident during shopping trips. Participants often took time to deliberate when comparing products’ prices, more so than when looking at the traffic-light labels or ingredients lists.

Case Summary 3. A closer look at price – Sandra

Price mattered across households, even those where food budgets were not particularly restricted. Sandra, a recently widowed pensioner in her 60s, reported being quite meticulous when looking at dietary information on food packaging, particularly to avoid sugary or fatty foods. Yet, she ultimately made exceptions for products she likes: *“I’m very aware of fat and I look at the traffic-light system, the red, orange, green. I’m very tuned into that. And I still buy some of the red stuff, cheese in particular, because I like cheese.”*

When looking at price, however, she seemed to be much more consistent. She said: *“I don’t need to save money, but it gives me great satisfaction to beat the ‘big boys’ as it were, the multinationals. The other day I looked at the Tesco Weetabix and the Weetabix-Weetabix and I turned them over side by side and read the labels, and they were I would say 99% identical and that was such a surprise to me. I know that they’re very similar, but I hadn’t realised they were so close to being identical. The difference in price per biscuit as they call it, it was 12p for a single Weetabix biscuit, 5p for the Tesco one. And so, I’m aware, if you like, of pricing quite keenly and I’m aware where you can get the cheaper stuff. And generally, I think I am guided quite a lot by price. I said to myself [...] ‘I don’t know why I do that, because I don’t need to save money’ but I like the idea of getting better value for money. I think that’s really what is behind it.”* Sandra’s comment is indicative of the fact that price comparisons are much easier to identify and interpret by participants than dietary information and that finding ‘value for money’ may be important regardless of household income or budget.

Price was also a deciding factor for some participants who regularly ate out of the home:

“I’ll usually have lunch at work. It’s usually a soup [...] There’s a canteen. There’s usually a choice of two soups; that’s pretty much what I’ll get most days because it’s the cheapest option.” (Maggie’s partner; Dual-parent household; Flexitarian diet)

For Maggie’s partner, who had expressed a desire to “eat healthy” by predominantly consuming fresh fruits and vegetables in his meals, the choice of soup at his work canteen also fulfilled this preference. Nonetheless, some participants explained that their attempts to eat “healthy” food were at times limited by the higher price of foods they considered to be healthy. For example, Rob lamented during the shopping trip that he is not able to buy the cereals that taste better to him, as these tend to be “too sugary”. When asked if there were

any sugar-free, or low-sugar, alternatives that he liked, he said that he had often looked, but that these were generally at least twice as expensive than the kind he usually bought: *“How come if you’re buying the stuff that’s good for you, it’s so more dearer?”*.

In some households, like Jackie’s and Lucy’s, participants admitted to spending a bit more on products they particularly liked, that they thought were better quality, or that they preferred due to ethical considerations (e.g. organic vegetables):

“Sometimes I’ll buy more expensive bread or more expensive dairy-free cheese, because I’ve tried the other ones and they were disgusting. So sometimes it’s just about balancing what’s tasty and what’s in budget.” (Jackie; Dual-parent household; Dietary intolerances and vegan diet)

“We’re now buying far more organic, and yes it is expensive, and what it means is more of our monthly money now goes to food, but also because we don’t eat out very often, and we used to eat out a lot, I think it’s probably evened out a bit.” (Lucy; Dual-parent household; Health conditions and dietary intolerances)

These comments highlight that whilst price may have been the key factor informing participants’ shopping practices, price also intersects with multiple other aspects that households assessed when purchasing food, including their own values and expectations in terms of ethics and sustainability. These considerations are also indicative of the conflation of, for example, organic with ‘healthy’, which is not always straightforward and may further confuse people’s understanding of dietary information.

Conclusion

This report has provided an overview of what some Scottish households know about dietary information and where they acquired this information; what participants said about how they use dietary information; and how they used dietary information in practice. Whilst most participants reported having a general understanding of the dietary information that is useful to them, this knowledge was often inconsistently or vaguely applied in practice when purchasing food, cooking at home and eating at home or out of the home. This was due to a combination of factors, including: difficulty in locating, interpreting and/or understanding dietary information; trusting one's experiential, or 'common sense', knowledge over 'expert' dietary information; and valuing factors such as price, ethics/sustainability, and the pleasurable/social qualities of food over following dietary information. Across households, price was the most important factor informing households' food purchasing practices.

Participants often reported what food groups or nutrients they thought they should eat more or less of (e.g. carbohydrates, salt, sugar etc). However, few (if any) were able to define what 'less', 'more', 'balanced' or 'moderate' meant in terms of portion sizes. This often led to a balancing act between eating healthily and other priorities such as pleasure, socialising and price. This balancing act meant households relied on experiential knowledge or general rules of thumb when deciding what to eat or purchase. For example, making compensations based on generalisations such as 'only' drinking tea with cake, rather than hot chocolate, to compensate for the sugar in the cake. However, it is not feasible to make these compensations consistently throughout the day, leading to contradictions between knowledge and practice. This highlights the complexities and difficulties people face when trying to navigate dietary information and/or balancing the types of foods, nutrients and portion sizes, alongside other competing priorities. This was particularly the case for those with smaller food budgets, dietary intolerances/allergies or long-term health conditions.

COVID-19 has impacted on many aspects of food and eating for people in Scotland, perhaps especially so for those whose income, health or vulnerability has been affected in some way. Whilst practical support can ensure that vulnerable and/or shielding households are able to access the food they need, some households may also require additional emotional support. Feeling socially isolated can lead to low mood, for example, which can affect appetite. Again, this highlights the complexities people face with regards to consistently trying to eat a healthy diet. Finding ways to support households to manage their physical and mental health as well as food and dietary preferences, despite these ongoing challenges therefore continues to be important.

In terms of how these findings might inform the development of dietary guidance by FSS, it is clear that clarity of information about traffic light labelling and how to interpret this within a healthy diet is important. In particular, households found it difficult to interpret the front-of-pack labelling with regards to portion size. There is inconsistency as to how a portion is defined and this is dependent on the product size. However, it should be noted that work is being undertaken by FSS to update nutritional labelling on pre-packaged food⁴ and this also forms a recommendation in the new UK Food Strategy.⁵ Being clear about how to use dietary information when also living with/shopping for health conditions, allergies, intolerances or dietary preferences is also essential. It might be useful for FSS to consider how to use food pricing and 'value for money' as a lever for dietary change. Whilst it is challenging to incorporate experiential knowledge within official guidance, understanding and acknowledging that most households will draw on these forms of knowledge, alongside more formal information is vital to increase the effectiveness of FSS guidance. This is particularly pertinent for health care professionals who might be working with patients or communities.

⁴ Further details can be found at this link: <https://www.foodstandards.gov.scot/consumers/food-labelling>

⁵ See <https://www.nationalfoodstrategy.org/>

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Appendices

Appendix A: Household Screening Questionnaire

Scottish Food Practices - Food & Public Health Policy Project Participant questionnaire

Household ID NO: _____

Thank you for indicating your interest to take part in this study. Please help answer the following questions.

Your Name: _____

House number /street: _____

Town/city: _____

County: _____

Post code: _____

Email Address (if you have one): _____

Telephone number (Please indicate your preferred contact number)

..... Preferred

.....

Best time to telephone you:

Gender: Female/Male (please circle one)

Working status:	<input type="checkbox"/> Attends school or college	<input type="checkbox"/> Unemployed
	<input type="checkbox"/> In Work	<input type="checkbox"/> Other
	<input type="checkbox"/> Retired	
Are you currently receiving any form of benefits?		
Do you have any qualifications?		
Age group:	<input type="checkbox"/> 11-18	<input type="checkbox"/> 60-69
	<input type="checkbox"/> 19-24	<input type="checkbox"/> 70-79
	<input type="checkbox"/> 25-44	<input type="checkbox"/> 80-89
	<input type="checkbox"/> 45-59	<input type="checkbox"/> 90+
	Housing tenure:	<input type="checkbox"/> Social rented housing
	<input type="checkbox"/> Private rented housing	

	<input type="checkbox"/> Owner (including outright and mortgaged) <input type="checkbox"/> Supported or Sheltered housing scheme/retirement home <input type="checkbox"/> Other
--	---

1. Who else lives in your home? Tick all that apply

- | | |
|--|--|
| <input type="checkbox"/> No one | <input type="checkbox"/> Adult relatives |
| <input type="checkbox"/> partner/spouse | <input type="checkbox"/> Adults not related to you |
| <input type="checkbox"/> children under 18 (how many children?) | <input type="checkbox"/> Pets |
| | <input type="checkbox"/> Other - please specify |
-

2. Who does the food shopping for your household? Tick all that apply.

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> Yourself | <input type="checkbox"/> Relative |
| <input type="checkbox"/> Spouse | <input type="checkbox"/> Neighbour |
| <input type="checkbox"/> Parent | <input type="checkbox"/> Carer |
| <input type="checkbox"/> Child | <input type="checkbox"/> Other - please specify |
-

3. What is your primary mode of transport (Tick all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Walk on foot | <input type="checkbox"/> Car/van |
| <input type="checkbox"/> Cycle | <input type="checkbox"/> Taxi |
| <input type="checkbox"/> Mobility scooter | <input type="checkbox"/> Motorbike |
| <input type="checkbox"/> Public transport (bus, train etc) | <input type="checkbox"/> Other - please specify |
-

4. Do you have food delivered from any of the following? Tick all that apply

- | | |
|--|---|
| <input type="checkbox"/> Supermarket | <input type="checkbox"/> Vegetable box scheme |
| <input type="checkbox"/> Meals on wheels | <input type="checkbox"/> Milk delivery |
| <input type="checkbox"/> Takeaways | <input type="checkbox"/> Relatives or friends |
| <input type="checkbox"/> Local shops | <input type="checkbox"/> Other – please specify |
-

5. Do you eat outside of the house in any of the following at least monthly? Tick all that apply

- | | |
|---|---|
| <input type="checkbox"/> Work or school canteen/cafeteria | <input type="checkbox"/> Supermarket Café |
| <input type="checkbox"/> Independent or family run restaurant | <input type="checkbox"/> Take-away |
| <input type="checkbox"/> Chain or high street restaurant | <input type="checkbox"/> Street-food vendor |
| <input type="checkbox"/> Local cafe | <input type="checkbox"/> Other – please specify |
-

6. What part of the study are you interested in being involved in? Tick one or both options

- | |
|---|
| <input type="checkbox"/> Interviews and a researcher visiting your home |
| <input type="checkbox"/> Focus group discussion about how people acquire food |

7. From which supermarket would you like to receive a £50 voucher at the end of the study?

Exploring the household context and food use

How long you have lived here and who lives with you?

Can you talk me through your typical week in terms of buying food, who eats together/when/where etc. (Prompt to probe deeper to get the general patterns)

Who is typically responsible for shopping, cooking, ordering food or deciding to eat out?

- Is it the same person who does everything? Does that ever change?
- Do you have any 'help' in any of the activities mentioned? Expand on this depending on answers

Explore where food is kept and used in the house

- Use a tour of the kitchen/dining room etc. to see what food they acquire and how it is used and what object/equipment used to aid use (if possible video this tour).
- Is there a freezer/larder, do they compost/freeze/save any food leftovers?

Has anything you've talked about changed in recent years?

How and why people and households get their food

Food Shopping

How often do you buy or get food, and where do you get food from?

If it is mainly from supermarkets;

- Have you always got your food from there or has something changed recently?
- How do you get there? When do you go?
- Can you tell me about the supermarket? (prompt to ask about likes, dislikes, specifics about the store etc)
- How do you go about making your list and deciding what to buy, or not to buy when you are in the supermarket?
- Do you have a set budget for food?
- What about shop vouchers, store cards or other food store loyalty schemes –explore how they use this

(Use prompts such as ingredient list, food labelling, information on origin of food, allergies, vegetarian /diabetic /vegan, food intolerances etc. to explore what proxies use to judge food as something they want to buy/eat)

If local shops are mentioned;

- Can you tell me about the places you buy food locally?
- Are there particular reasons you shop there?

Over the years, has anything prompted you to change your food habits?

- e.g. marriage, moving, children, price, health

Online shopping

Have you shopped online for food before?

- Has someone else ordered food online for you before?
- If they do not shop online, ask why they don't shop for food online?
- If they do, why do they like about shopping online?
- Do you take notice of dietary guidance information when ordering? E.g. calorie information or labelling?

Take-away

Have you ordered take-away food before?

- How often might you order take-away food for yourself? For others in your household?
- Do you order on-line? By telephone? Collect in person?
- How do you decide what to order? Do you have a menu in the house? Do you check on-line? Or do you already know what you like?
- Are there any particular food-delivery services that you prefer using? e.g. Deliveroo, JustEat, UberEats, etc.
- Do you take notice of dietary guidance information when ordering? e.g. calorie information or labels?

Eating out of the home

- How often do you eat outside the home yourself? Can you tell me about them? (prompt – who with, where, how regularly?) Who decides where you go to eat? Do you check on-line? Do others recommend places?
- What is it you like about the place(s) you go?
- Do you take notice of dietary guidance information when ordering? Calorie information or labels?
- Do you ever purchase food/meal deals from supermarkets or other outlets? (e.g. if buying lunch on a workday)

Exploring perceptions closely

- Do you ever pay attention to dietary guidance information? Can you tell me more about it?

The bigger picture (prompts)

- Do you ever question the nutritional information of your pre-prepared/home-cooked food?
- Do you ever question the nutritional information of your take-away food?
- Do you ever question the nutritional information of your food when eating out?
- Do you ever question the safety of your food?
- Are questions about the sustainability, environment, or the origin of the food you that purchase and eat important to you?

Are you aware of media reports about information about food in general?

- what has caught your attention recently?
- Has this type of information influenced your decision on what to buy?

Has there been a time when dietary guidance information has influenced what you have bought, either in a good or a bad way?

- What happened and what did you do?