



Exploring Vegan Mothers' Experiences of Making Food Choices for Infants and Young Children

Eliza Jones, MSc; Amy E. Burton, PhD

ABSTRACT

Objective: Our study aimed to explore vegan mothers' experiences and decision-making processes when feeding their children (up to 3 years old).

Methods: We conducted a qualitative photo-elicitation interview study in the United Kingdom. Eight vegan mothers provided 5 photographs of food choices they had made for their children and completed online photo-elicitation interviews to discuss these images. Data were transcribed verbatim and analyzed using reflexive thematic analysis.

Results: Five themes were developed: role modeling eating behavior, shared decision-making, nutritional guidance for vegan parents, fear of judgment for being vegan, and desire for convenience.

Conclusions and Implications: Findings illustrate the complexity of the decision-making process and highlight the need for targeted resources for vegan parents. There is a need for awareness raising and training for health care professionals and the development of vegan-specific child-feeding resources to facilitate the provision of evidence-based nutritional guidance for vegan parents.

Key Words: vegan, diet, infant-feeding, decision-making, parenting (*J Nutr Educ Behav.* 2023;55:624–633.)

Accepted June 15, 2023. Published online August 4, 2023.

INTRODUCTION

A vegan diet contains only plant-based foods and excludes food derived from animals.¹ The number of people following a vegan diet is increasing, particularly in European countries.² Although no formal statistics are available in the United Kingdom, YouGov tracker data suggest that around 2% to 3% of the UK population are vegan.³ Three main motives for choosing a vegan diet are ethical, health, and environmental.⁴ Implementation of a vegan diet during infancy, childhood and adolescence is on the rise,⁵ and it is likely that the principles and beliefs held by vegan individuals may influence decisions as to what they feed their children.⁶

Although there is debate about the suitability of the vegan diet for

infants and young children,⁷ there is general agreement that a vegan diet is adequate when supported by appropriate supplementation.^{8–11} Potentially reduced food variety means that poorly managed vegan diets for infants and children could result in nutritional deficiencies⁷ with greater risk than that posed by offering a vegetarian diet.¹² Furthermore, it has been argued that children should not follow vegan diets without expert guidance, planning, and supplementation support.¹² Therefore, the diets of young children need to be well-planned by parents to guarantee the intake of adequate nutrients for optimal growth and development.¹³

Parents choosing to feed their children a vegan diet need to be well-informed about food choices and supplementation requirements.^{8,9} Health care professionals (HCPs) are well

placed to deliver advice to implement a well-planned diet, but researchers have found that this may not occur for vegan parents.¹¹ Italian parents report that pediatricians do not provide sufficient advice regarding vegan or vegetarian feeding practices and may display opposing views toward these dietary choices.^{7,14} Alternative sources of information for parents include internet resources; however, the quality of these for vegan diets can be poor and sometimes misleading.¹⁵ To ensure parents can access the best available evidence and support regarding feeding choices, it is important to understand how vegan parents decide what to feed their children.

The World Health Organization recommends commencing complementary feeding when children are aged 6 months.¹⁶ The complementary feeding stage is a window of opportunity for caregivers to introduce various healthy foods.¹⁷ Food preferences acquired through early experiences often remain throughout childhood,¹⁸ with important implications for growth and health outcomes.¹⁹ Children aged 3 years are most likely to display picky eating behaviors, such as refusing to try new foods.²⁰ Consequently, when children are 3 years old, parents may still offer the

Centre for Psychological Research, School of Health, Science and Wellbeing, Staffordshire University, Staffordshire, United Kingdom

Conflict of Interest Disclosure: The authors have not stated any conflicts of interest.

Address for correspondence: Amy E. Burton, PhD, Psychology Department, School of Health, Science and Wellbeing, Staffordshire University, Leek Rd, ST4 2DF, Staffordshire, United Kingdom; E-mail: amy.burton@staffs.ac.uk

© 2023 The Authors. Published by Elsevier Inc. on behalf of Society for Nutrition Education and Behavior. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>)

<https://doi.org/10.1016/j.jneb.2023.06.003>

same foods but have less control over the food consumed by their child as their autonomy increases. In addition, the preferences expressed by children at this age can influence the foods selected by parents through a bidirectional relationship with parents offering the foods they think a child will eat, potentially reducing the variability of foods offered.^{21,22} Therefore, it is important to understand the factors influencing food provisioning by parents of children aged between 6 months and 3 years.

Although greater importance is placed on equality in food provisioning in heterosexual relationships, socialization of culture and gender continue to be barriers to fathers taking an equal role in practice.²³ As a result, mothers generally have the greatest influence regarding dietary decision-making for their infant or child.^{24,25} This is also the case when children wean to a vegetarian or vegan diet; therefore, it is an area in need of further research.⁷

Previously, researchers have used photo-elicitation to explore mothers' experiences of making food choices for their children,²⁶ illustrating how choices can be influenced by mothers' level of identification with a healthy identity. In addition, researchers using semistructured interviews have highlighted that child food provisioning decisions are a complex social practice. Various environmental and individual circumstances contribute to this, including beliefs and values, cost and time restrictions, food availability, perishability, and infant acceptability.²⁷

However, researchers working in this area have not explored the thoughts and experiences of vegan mothers in these studies. Therefore, it is important to explore vegan mothers' experiences of infant food choices before 3 years old; at this point, children may have more autonomy over their food consumption. Better understanding can then be used to improve vegan mothers' experiences of feeding their young children and ensure well-planned diets. Our study aimed to address the gap in the literature by answering the following research question: How do vegan mothers experience and make

decisions about feeding their infants and young children?

METHODS

Study Design

We collected data using a qualitative semistructured photo-elicitation interview design and analyzed this using reflexive thematic analysis.²⁸

Participants

Mothers from the United Kingdom aged >18 years with a child aged between 6 and 35 months were eligible to participate. We recruited a convenience sample via social media platforms to complete a survey about infant-feeding choices as part of a broader study comparing the food knowledge of mothers with different diet types (Jones and Burton, Unpublished data, 2021). Respondents who self-identified as vegan in the initial study ($n = 24$) could choose to share contact details regarding follow-up photo-elicitation interviews. Fifteen expressed an interest in further information and were sent an information sheet explaining the need to collect photographs for the follow-up interview study. Of these, 8 agreed to complete an interview. Six participants chose to feed their infants a vegan diet, 1 a vegetable-based diet, and 1 an omnivorous diet (participant demographic characteristics by pseudonym can be seen in Table 1).²⁹

Our final sample size was not guided by the concept of saturation as this is not theoretically coherent with reflexive thematic analysis.²⁹ Instead, we concur that judgments on sample size to meet study aims are necessarily informed by the ongoing interpretation of the researcher during the process of data collection and analysis.³⁰ Therefore, we pragmatically applied the guide of 6–10 participants for a study using reflexive thematic analysis²⁸ alongside the concept of information power, which argues that sample size should be determined by the study aim, sample specificity, existence of established theory, quality of the dialogue and analysis approach employed.³¹

Procedure

Ethical approval was granted for this study by Staffordshire University Psychology Ethics Committee after a full ethical review process. We collected data between January 2021 and April 2021 during the coronavirus disease 2019 pandemic. We shared a Qualtrics (Qualtrics, January 2021) link with interested participants directing them to an information sheet detailing the aims of the study and an online consent form to provide written consent. During the initial survey, we collected demographic information relating to age, child's age, relationship status, and ethnicity (Table 1).

We asked consenting participants to take 5 photographs of foods they chose to feed their infants on a given day and instructed them to email these to us before the interview (Table 2). We had the participant's submitted photographs present and discussed these with them during the interviews. The photo-elicitation method and quantity of photographs were informed by a similar study that aimed to explore mothers' food choices.³² This ensured a manageable number of photographs to discuss during the interview without overburdening the participant.

Interviews were conducted using Microsoft Teams (Microsoft, 2021).³³ The duration of the interviews was 25–40 minutes. The first interview was a pilot enabling us to test the process and interview guide. We made no changes to the procedure following this first interview. The interviews followed a semistructured interview guide and consisted of open-ended questions (eg, Does the reasoning behind your choice to follow a vegan diet influence your food choices for your infant and why?) (Table 3). We used photo-elicitation as a participant-led approach to generate data by using visual images to prompt an in-depth response from participants.³⁴ We transcribed the interview verbatim and anonymized any identifying information. After the interview, we emailed the participants a debrief form to thank them for their involvement, remind them of the study aims, and provide sources of support and further information.

Table 1. Demographic Information for Participants

Pseudonym	Age, y	Ethnicity	Education	Relationship status	Partners' diet preference	No. of children	Youngest child eating solids age (mo)	Oldest child age (y)	Diet choice for child
Sophie	31	Mixed ^a	HE	Partner	Omnivore	3	—	—	Vegan
Jaz	31	WB	HE	Partner	Vegan	1	19	—	Vegan
Mia	42	WB	HE	Single	—	1	31	—	Vegan
Mary	31	WB	PG	Partner	Omnivore ^b	2	19 ^c	—	Vegan
Nina	31	WB	HE	Partner	Vegan	2	22	5	Vegan
Claire	32	WB	HE	Partner	Vegan	2	17	12	Vegan ^d
Sue	34	WB	PG	Partner	Omnivore	2	15	4	Vegetarian
Lucy	34	WB	PG	Partner	Omnivore	1	27	—	Omnivore

HE indicates higher education (degree or equivalent); PG, postgraduate education (master's degree [or equivalent] and above); WB, White British.
^aMixed ethnicity: White and Black African; ^bPartner eats a vegan diet when with children; ^cHas a 4-month-old; ^dCow's milk formula. Note: All participants lived in the United Kingdom. Dashes indicate data were not reported or not applicable.

No incentive was offered for participation.

Data Analysis

We analyzed the data using reflexive thematic analysis.²⁸ We took a critical realist perspective³⁵ to explore vegan mothers' realities, truth of experience, and decision-making process regarding food choices for their infants. The first author annotated the transcripts manually, with initial coding ideas focused on the research aims. The first author derived the coding from reading and re-reading the data as part of an inductive, data-driven process.³⁵ The first author used semantic coding to describe the participants' experiences and thoughts.²⁸ The first author collated codes into themes and checked these for coherence through discussion with the second author as part of an iterative and recursive process. The first and second authors co-created the narrative account of the themes.

The first author has Master of Sciences level training in the conduct of qualitative research. The second author is a qualified health psychologist with a Doctor of Philosophy and >10 years of experience in using qualitative methods. As a vegan, the first author and interviewer could be considered to have insider status. Therefore, it is possible that when conducting the semistructured interviews, the questions may have been informed by the researcher's investment. To address this, the lead researcher used a reflective diary to engage in reflective practices following each interview and during the analysis.²⁸ In addition, themes were interrogated through regular meetings and discussions with the second author, a nonvegan, to ensure they captured and represented the participant's accounts.

RESULTS

We developed 5 themes from the data: being a role model for vegan values, shared decision-making, nutritional guidance for vegan parents, fear of judgment for being vegan, and desire for convenience.

Being a Role Model for Vegan Values: "Do What Mummy Does, Eat What Mummy Eats"

The participants' decisions for their vegan diet were grounded in moral, environmental, health, and preference-based reasoning. For example:

I was just doing [Veganuary] to try and be a bit healthier [...] I ended up doing a lot more reading during that month about how the wider aspects of veganism and like you know? The animals and environmental impacts of meat and so after that month morally I found it difficult to go back. (Mary)

Those who chose a vegan diet for their child (n = 6) applied this framework to their decision-making. However, regardless of the diet choice for their child, the participants saw themselves as role models. Through this role modeling, they hoped to set a lifestyle example their child would ultimately choose for themselves. One participant, who fed her child an omnivorous diet, explained:

I would like him to think that he wants to do what mummy does and eat what mummy eats, but if he doesn't then that's fine, because I didn't, you know? I didn't, wasn't a vegan when I was a child, so I can't really expect him to be. (Lucy)

This participant did not want to ask anything of her child that had not been applied to herself and perhaps felt that being open to an omnivorous diet in childhood enabled her child to make their own choice later in life:

He's got a kind of a strong lead to it [veganism], but it would be better for him to come to himself rather than it being forced on him. Because you know he will eat other food, I will not be controlling everything he eats, and I don't want to. (Lucy)

In comparison, for another participant, a vegan diet in childhood meant that her son could choose whether to eat animal products when he was older without unknowingly compromising his future values:

He might when he's older, when he's a teenager or whatever, decide to say, "actually no [veganism] isn't for me," that's you know his choice. But I want him to have that option [...] You know? To be to be able to say "actually yeah, I've, I've never eaten an animal I've never eaten animal products." (Mia)

Children were described as eating meals with their families and were exposed to the same foods as their parents, often resulting in vegan meals being offered regardless of the overall diet choice that had been made. For example, in response to an image of a meal containing pesto pasta, Jaz commented, "that's what I ate so it's what he would normally have." This is another example of role modeling as the mothers saw no reason to proactively offer their children animal-based products; they were offered the food they ate.

Shared Decision-Making: "What We Feel Is Best"

Despite all participants eating a vegan diet, not all family members were vegan. Therefore, decisions regarding children's diets were depicted as shared within and influenced by the family unit. When parental dyads were both vegan, the decision-making process was straightforward. For example:

I'm not going to go out and buy nonvegan products just so my children can try them, that's, you know? Until they're old enough to make their own decisions they'll eat what we have [...] because we're vegan they are vegan too. (Nina)

As exhibited in the previous theme, this feeding stage was seen as a window of opportunity for children to develop the same food-related values held by the family unit. Similarly, when asked about the greatest influences on decision-making, another participant explained:

Just my and my husband's personal choices really and what we feel is best. We don't really take any advice from other people and things that we read about, we always talk about this, so it's

mainly just our own, our own, opinions and our own morals really. (Mary)

This again demonstrates the process of food-related decision-making within a vegan family unit. The extract evokes the idea that parents know best and that their preexisting beliefs influence their decisions regarding what to feed their infant.

When others in the household ate omnivorous diets, this could alter the choice and availability of animal-based foods for their child. This could be potentially challenging:

For my son, I did initially really want him just to follow a vegan diet, but I then thought my husband's not vegan and, he wasn't like against it completely, but he did worry that if my son was, if our son was a full vegan, it would be a bit difficult for [our son]. (Lucy)

This participant touched on the potential for conflict if the participant chose to inflexibly enforce a diet incompatible with that of her partner. Lucy seems to rationalize this by considering the added complications of veganism for an older child, possibly alluding to the lack of availability of vegan foods in some environments and the negative views of veganism that might be held by others. For another participant, her partner's choice to eat a more vegan-based diet meant that decision-making was simpler:

[My partner eating more vegan foods] definitely makes it like easier [...] it's not like a battle at all to, to, have understanding of why we would, you know? Feed the children a largely plant-based diet [...] there's never like arguments or anything like that about it. It's just it makes it a lot easier to be in a relationship with somebody who's who understands and sort of shares or is at least starting to share those values and beliefs. (Sue)

Nutritional Guidance For Vegan

Parents: "A Bit of an Afterthought"

For all participants ensuring a healthy diet was an important influence on

the diet choices made for their child (eg, "I want him to be as healthy as he possibly can." [Mia]). The nutritional value of food was an important motivator underpinning the decision-making process; however, access to information to make the best choices when offering a vegan diet was limited.

When information was lacking, this could lead to individuals making choices they believed were in the interests of their child's health but at the expense of their morals or preferences. For example, 2 participants had chosen to give their child formula containing cow's milk protein. One participant did not perceive there to be a choice regarding this, having only been able to identify a single vegetarian brand of the formula: "He is entirely sort of vegan food based, with the exception of his formula that is a bit of a bugbear, but it is what there is." (Claire).

Although another offered cow's milk formula because of a perceived lack of research into vegan alternatives:

I couldn't breastfeed fully like I didn't have enough supply. So early on he had to go on formula, you know? We sort of combi fed and, you know that formula wasn't vegan [...] I think you know? You could get soya formula if they if, you know? If infants have a cow milk protein allergy, you can get soya pro-soy formula but he didn't have a cow milk allergy so, and again, it's not as well researched. (Lucy)

The participants showed awareness of sources by which they could gain knowledge about infant diets; however, they suggested that these resources were not tailored to their needs. Jaz explained that these sources had come from an HCP "the health visitor sent me some National Health Service (NHS) resources." Another participant talked about online NHS resources:

Guidance for vegetarian and vegan parents is a bit of an afterthought. [...] it kind of feels like a bit of an invalid choice or lifestyle when it just is sort of like, here's all the information, "oh and by

Table 2. Description of Images Submitted by Participants Representing Foods Offered to Their Child

Image No.	Image Description
Sophie	
1	Warm oats topped with seeds, nuts and fruit
2	Three vegan brioche bun slices (toppings: butter, avocado and marmite, sprinkled yeast), walnuts, dried apricots, and fruit juice
3	Vegetables and rice
4	Grapes and half a packet of crispy seaweed
5	Homemade shortbread biscuits
Lucy	
1	Overnight oats with berries
2	Cereal
3	Peanut butter sandwich and banana
4	Raisins and apples
5	Lentil bolognese and green beans
Jaz	
1	Oats with blueberries and a peach
2	Pasta and vegetables
3	Pomegranate seeds
4	Sandwich, butternut squash, and tomatoes
5	Crisps (Veggie Straws)
Mia	
1	Pancakes, chia pudding and berries
2	Lentil bolognese and strawberries with peanut butter
3	Vegan beef strips, black beans, rice, peppers and guacamole
4	Crispy seaweed thins and strawberry fruity bakes
5	Orange
Mary	
1	Overnight oats with seeds and fruit
2	Chili bean rice, vegetables, avocado and berries
3	Chickpea stew and vegetables
4	Banana and Satsuma
5	Bread, dried fruit and a power ball
Nina	
1	Porridge, berries, banana, and jam
2	Picnic food: sandwiches, pastries, salad, potato salad, crackers, fruit and biscuits
3	Picnic plate: sandwiches, pastries, salad, potato salad, crackers houmous
4	Oat bar (prepacked) and bacon rasher
5	Couscous, vegetables and vegan cheese
Claire	
1	Cereal
2	Pasta and vegetables in a tomato sauce
3	Oat bar (prepacked)
4	Crispy seaweed thins
5	Tofu, edamame beans and rice
Sue	
1	Peanut butter on toast with fruit
2	Crackers, salad and fruit
3	Haricot bean and sweet potato cassoulet pouch
4	Vegan meat, mash and vegetables
5	Crisps: Veggie straws

Note: Participants were all vegan mothers living in the United Kingdom.

the way, if you're vegan, then you might want to think about this" [...] Even if they had like 1 [leaflet] for Omni diets and 1 for vegetarian and vegan, so you didn't have to like wade through all of the stuff that was like "oh and make sure they eat yogurt and make sure they have some cubes of chicken, they are really easy for them to eat" and stuff like that. (Sue)

This lack of formal guidance resulted in many conducting research to access resources. For example, one participant accessed an online resource giving guidance on information such as portion size for 0–5 years. She had based many feeding decisions on this resource and explained: "a lot of what we feed are based off that." (Sophie).

In contrast, another participant had gone a step further to seek out specialist 1–2–1 advice on feeding her child a vegan diet:

We got [a dietitian or nutritionist that] specialized in veganism for children and had a few sessions with her to kind of make sure that we were on the right track [...] she gave us quite a lot of information that we didn't have previous, just that like kind of hammered home the importance of iron and vitamin C, kind of combining those as much as you can and she just said "put seeds on everything" but absolutely everything so we do [laughs] and Iodine that's the one that I didn't really know much about so he has Iodine and 'cause some of the some of the plant milk is fortified with it, some of it isn't, so we try getting the one that is. (Jaz)

Fear of Judgment For Being Vegan: "Being Labeled a Bad Parent"

Although participants were clear in their reasons for eating a vegan diet, they displayed concerns about how applying this decision-making to their child's diet might be viewed by others. This had implications for those who disclosed these dietary choices:

Table 3. Interview Guide Used to Explore Vegan Mothers' Decision-Making Regarding Food Choices For Their Young Child**Question**

Tell me about yourself and your family.
 What are the main reasons that you follow a vegan diet?
 Does the reasoning behind your choice to follow a vegan diet influence your food choices for your infant, and why?
 (For each image discussed) Do you feel this image is an accurate representation of a typical meal you would feed your infant, and why?
 (For each image discussed) Why did you choose the foods in the image?
 What made you choose X item?
 For future meals, would you change any of the food in this image and why?
 What influences your food choices for your infant?
 Do any of your family or friends follow a vegan diet?
 What access do you have to nutritional guidelines for feeding your infant?
 What would you identify as the greatest influence when making decisions as to what to feed your infant and why?
 Is there anything else you think is important that you would like to tell me about how you feed your infant?

Note: The semistructured interview explored the family context and decision-making experience regarding feeding a child aged < 36 mo. Image-related questions referred to photographs of meals given to the child and supplied to the researcher by the participant before the interview.

I don't tend to talk about it with a lot of people so a lot of the mums, like a lot of my friends will know, but like my just mum friends will maybe not know that she follows a vegan diet. But, like, when you read about some of the experiences of the other vegan mums have, a lot of the concerns [other] people have is nutrients. (Mary)

This extract expresses a sense of secrecy that this participant has created around food choices for their child. It appears some vegan mothers worry about the repercussions of revealing that they feed their infants a vegan diet and actively try to avoid feelings of being judged by others, including HCPs. For example:

I was quite worried about bringing [my veganism] up with anyone, so like the health visitor or a midwife [...] I didn't want people to think that I was then going to just feed my child oat milk [...] I went to a feeding group [...] at the Children's Centre and we were given books on things that we could feed our children and they talked about meat and stuff and I just I didn't feel comfortable to sort of raise my

hand and say, "or what if you're not feeding your child meats?" [...] because I didn't want, I just didn't want everyone to look at me and go like "what a weirdo why wouldn't you?" (laughs) (Lucy)

This participant illustrated an internal battle regarding the desire to feed her child a diet in line with her morals and a fear of being labeled as a bad parent for choosing to restrict meat in her child's diet.

Some anticipated judgment when making food choices for their infants that opposed societal norms: "I think to begin with they were quite worried about how we'd bring up a child vegan in the current world, so you know with people questioning everything." (Nina).

However, when social networks also follow a vegan diet, this could positively influence a mother's outlook on their decisions:

[Having vegan friends and family members] certainly makes me feel more confident and validated that it's you know a valid, healthy, and appropriate choice to feed them mostly vegan diets. (Sue)

Participants felt empowered in their decisions when those surrounding them implemented a similar lifestyle. However, for some vegan mothers, following a vegan diet is not the 'norm' for those around them. Lucy and Claire responded no to the question asking if any of their family or friends follow a vegan diet, and Jaz commented, "I think I've only ever known 1 person in the flesh like you know to be vegan." To compensate, some were drawn to online social networks for comfort and to feel more confident in their food-related decisions for their children. Claire explained: "in some sort of weird way it maybe does help to know that you're not the only ones doing it," and Mary commented, "I follow a few vegan mums on Instagram so follow some vegan subs on Reddit so I can kind of get information from all those different places."

Desire For Convenience: "Something Quick and Easy"

Because of the fast-paced life often experienced by families, the convenience of food influenced the participants' food choices. This was displayed by a participant's response to an image of a meal of couscous with vegetables:

[The convenience of foods] definitely influences my decisions. If I've got something quick and easy that I can just pop in front of the children, or that has minimal prep time, then that works really well for us. It might be that we get, we may come back late from activity, or that we've just got to the evening, and, you know, completely forgotten about dinner, or it might be that we get to the evening, and I don't want to cook what I plan to cook for dinner because I'm fed up by that point. (Nina)

The multiple benefits of quick and easy food highlight the role of practicality when making food choices, particularly when the mother is feeling exhausted or stressed. However, convenience food is not always easy to source when feeding a vegetarian or vegan diet. For example, one participant explained in reference to an

image of a baby food pouch meal, “there aren’t a huge amount of vegetarian and vegan pouch options.” (Claire).

However, there was also an acknowledgment that access to such convenience foods for a vegan diet was improving:

When I first went vegan, I could only get like maybe 2 sorts of sausages, whereas now I go to the supermarket, and I probably got a choice of about 10 or 15 different sorts of sausages and then of course you got all the different vegan bacons and meals and stuff. (Nina)

To balance family life and child feeding, most participants discussed their use of meal-prepping, allowing them to conveniently prepare food throughout the day. For example, in response to an image of a meal containing spaghetti bolognese, a participant explained: “‘cause we like that meal it’s quite easy, we batch cook it and freeze the sauce so quite easy after my husband’s come back from work to just heat up really quickly.” (Lucy).

Similarly, Jaz meal-prepped snacks for the week, such as lentil muffins and porridge bars, and Lucy and Mary meal-prepped overnight oats. Aiming to balance nutrition and convenience, this allowed the mothers to feel more confident in their decisions: “I always feel a bit better about what I’m giving him when I’ve had a chance to do the meal prep, but I wouldn’t say I feel bad about what I give him the rest of the time.” (Jaz).

This comment indicates that to access the same experience of convenience foods as nonvegan families, Jaz felt she needed to be proactive in organizing time to prepare and batch-cook convenient homemade alternatives.

DISCUSSION

This study explored vegan mothers’ experiences feeding their young children in the United Kingdom. The participants expressed wanting to feed their children in line with their

ethical, moral, and environmental principles. Such beliefs, values, norms, and knowledge also influence food choices made by parents who were nonvegan.²⁷ Furthermore, in accordance with previous literature,³⁶ of our participants portrayed vegan mothers as wishing to be role models for the development of desired eating behaviors. Through purchasing decisions that control availability and modeling, parents can expose their children to foods more likely to be accepted by the child.³⁷ This role modeling approach is argued to be a more effective strategy for encouraging a healthy diet in young children than forced dietary control.³⁸

In our study, many participants chose to offer their child a vegan diet; however, they highlighted challenges around access to the evidence-based knowledge required to ensure that this diet was healthy. Information made available by health care contacts was not well suited to vegan parents’ needs. This mirrors findings reported in research in other countries,⁷ reaffirming an area for intervention.^{10,11,37}

A lack of health care–provided information meant that participants relied on their motivation to self-educate by accessing online resources, books, or social media groups to research how to feed their child a healthy diet. This is not unique to vegan parents as nonvegan parents of young children also report poor information on healthy eating, leading to their search for information.³⁹ However, online resources for vegan diets can be of particularly poor quality and sometimes misleading.¹⁵ Therefore, it is harder for vegan mothers to access evidence-based nutrition information for their infants than nonvegan mothers, despite the greater need for nutritional guidance to ensure that vegan diets are appropriate.¹²

We found participants’ fear of judgment was an additional barrier to accessing nutritional guidance. This type of judgment is unique to those who do not eat meat, particularly vegans, who are stigmatized for disrupting social conventions

related to food.^{33,40} Fear of judgment made decisions not to disclose their dietary choices to HCPs. This could create an added risk whereby any available guidance on nutritionally appropriate vegan diets for children may not be communicated to parents as HCPs are unaware of their needs. This experience can be compared with the challenges of accessing weaning advice, in which HCPs are an important source of information; however, the quality of advice given can be variable, and many parents are also influenced by informal advice, which can result in earlier weaning against evidence-based guidelines.⁴¹

Several participants highlighted how decisions to feed a vegan diet were also compromised when choosing infant formula. Vegan infant formula is not widely available in many countries, including the United Kingdom, in which this research was conducted, and participants in this study talked about using cow’s milk formula against their preferences. Although there is increasing demand for plant-based formulas, the quality of these varies, and such formulas may not meet nutritional requirements and could be a health risk, potentially resulting in severe malnutrition in young infants.⁴² Soy-based formulas are not suitable for infants aged < 6 months but may be suitable for some children aged > 6 months once soy allergy is absent.⁴³ Although hydrolyzed rice protein milk is used as an alternative formula for young children with cow’s milk protein allergy, these formulas have the addition of animal-derived Vitamin D3.⁴³ Given the lack of nutritionally appropriate vegan alternatives to breastmilk, this issue highlights the importance of breastfeeding support for vegan mothers to enable them to feed their child in a way that fits with their values and preferences.

Partners and other family members’ dietary choices influenced the child’s diet. Researchers exploring food provisioning by nonvegan parents have illustrated that co-parent support plays an important role in food-based decision-

making⁴⁴ and that food decision-making can be a source of conflict within parental dyads.⁴⁵ Our study has illustrated how these issues occur within vegan family units.

The need for convenience also influences food-based decision-making parents who are nonvegan.^{27,46} Researchers exploring the experiences of nonvegan parents have illustrated a parental desire to offer healthy foods, but those time restraints can act as a barrier⁴⁷ leading to the use of prepackaged meal options.⁴⁸ However, shop-bought vegan convenience foods were difficult to source for our participants. As a result, many described planning and preparing their convenience foods and snacks. This may be beneficial, as commercially sourced convenience foods are often not formulated in line with national infant and young child-feeding advice; for example, snacks marketed as healthy often have high sugar content, product names sometimes do not reflect the balance of ingredients, and many do not provide clear feeding instructions.⁴⁹ However, without appropriate awareness and education, alternative homemade snacks and convenience foods may also be at risk of containing excess salt or lack of appropriate nutritional balance.⁵⁰

Notably, most mothers in our study identified as White, and 75% had achieved higher education or above. Although this reflects demographic trends in those following a vegan diet,⁵¹ the transferability of our findings to the wider population is limited. The coronavirus disease 2019 pandemic and lockdowns were ongoing during data collection and may have restricted infant and child feeding at home; therefore, food choices outside the lockdown restrictions may differ. Although the first author who interviewed the participants had an insider status, engagement in reflective practices throughout the research process helped to understand the impact of personal experiences on the research and interpretation of the data. These data only present the perspectives of mothers; further research with other

primary caregivers, such as fathers and broader family members, would enhance our understanding of this topic.

IMPLICATIONS FOR RESEARCH AND PRACTICE

This is an exploratory study; further research with a larger and more diverse sample would be beneficial to assess and enhance the transferability of the findings. However, the findings indicate a need for high-quality resources for parents to be developed and evaluated to support those offering children a vegan diet to meet nutritional requirements. Furthermore, as vegan parents may be more likely to make their snack foods because of the limited vegan options available in stores, targeted educational resources for both parents and HCPs are needed to support vegan parents in making nutritionally balanced choices.

Health care professionals with the most contact with new parents need awareness regarding the spectrum of dietary choices and resources and training to deliver nonjudgmental educational support regarding the best plant-based sources of nutrients for children. Further research is needed to develop interventions to improve communication about child-feeding decisions between vegan parents and HCPs.

More research is needed to explore the types of conflict that might occur when parent dyads have different dietary preferences and how these may impact food choices offered to children. As a starting point, some vegan parents may benefit from additional family-level support, rather than just interventions directed at the mother, when negotiating decision-making within these circumstances.

REFERENCES

1. National Health Service. The vegan diet. <https://www.nhs.uk/live-well/>

- eat-well/the-vegan-diet/. Accessed March 3, 2023.
2. Müller P. Vegan diet in young children. *Nestlé Nutr Inst Workshop Ser.* 2020;93:103–110.
3. YouGov. Dietary choices of Brits (e.g. vegetarian, flexitarian, meat-eater etc)? <https://yougov.co.uk/topics/lifestyle/trackers/dietary-choices-of-brits-eg-vegetarian-flexitarian-meat-eater-etc>. Accessed March 3, 2023.
4. Janssen M, Busch C, Rödiger M, Hamm U. Motives of consumers following a vegan diet and their attitudes towards animal agriculture. *Appetite.* 2016;105:643–651.
5. Schürmann S, Kersting M, Alexy U. Vegetarian diets in children: a systematic review. *Eur J Nutr.* 2017;56:1797–1817.
6. Van Winckel M, Vande Velde S, De Bruyne R, Van Biervliet S. Clinical practice: vegetarian infant and child nutrition. *Eur J Pediatr.* 2011;170:1489–1494.
7. Baldassarre ME, Panza R, Farella I, et al. Vegetarian and vegan weaning of the infant: how common and how evidence-based? A population-based survey and narrative review. *Int J Environ Res Public Health.* 2020;17:4835.
8. Richter M, Boeing H, Grünewald-Funk D, et al. Vegan diet. Position of the German nutrition society (DGE). *Ernahr Umsch.* 2016;63:92–102.
9. Baroni L, Goggi S, Battaglini R, et al. Vegan nutrition for mothers and children: practical tools for healthcare providers. 2018;11:5.
10. Agnoli C, Baroni L, Bertini I, et al. Position paper on vegetarian diets from the working group of the Italian Society of Human Nutrition. *Nutr Metab Cardiovasc Dis.* 2017;27:1037–1052.
11. Fewtrell M, Bronsky J, Campoy C, et al. Complementary feeding: A position paper by the European Society for Paediatric Gastroenterology, Hepatology, and Nutrition (ESPGHAN) committee on nutrition. *J Pediatr Gastroenterol Nutr.* 2017;64:119–132.
12. Kiely ME. Risks and benefits of vegan and vegetarian diets in children. *Proc Nutr Soc.* 2021;80:159–164.
13. Menal-Puey S, Martínez-Biarge M, Marques-Lopes I. Developing a food exchange system for meal planning in

- vegan children and adolescents. *Nutrients*. 2018;11:43.
14. Bivi D, Di Chio T, Geri F, et al. Raising children on a vegan diet: parents' opinion on problems in everyday life. *Nutrients*. 2021;13:1796.
 15. El Jassar OG, El Jassar IN, Kritsotakis EI. Assessment of quality of information available over the internet about vegan diet. *Nutr Food Sci*. 2019;49:1142–1152.
 16. World Health Organization. Infant and young child feeding. <https://www.who.int/news-room/fact-sheets/detail/infant-and-young-child-feeding>. Accessed March 3, 2023.
 17. Chambers L, Hetherington M, Cooke L, et al. Reaching consensus on a 'vegetables first' approach to complementary feeding. *Nutr Bull*. 2016;41:270–276.
 18. Grimm KA, Kim SA, Yaroch AL, Scanlon KS. Fruit and vegetable intake during infancy and early childhood. *Pediatrics*. 2014;134(suppl 1):S63–S69.
 19. Birch LL, Doub AE. Learning to eat: birth to age 2 y. *Am J Clin Nutr*. 2014;99:723S–728S.
 20. Taylor CM, Wernimont SM, Northstone K, Emmett PM. Picky/fussy eating in children: review of definitions, assessment, prevalence and dietary intakes. *Appetite*. 2015;95:349–359.
 21. Wolstenholme H, Kelly C, Hennessy M, Heary C. Childhood fussy/picky eating behaviours: A systematic review and synthesis of qualitative studies. *Int J Behav Nutr Phys Act*. 2020;17:2.
 22. Walton K, Kuczynski L, Haycraft E, et al. Time to re-think picky eating?: a relational approach to understanding picky eating. *Int J Behav Nutr Phys Act*. 2017;14:62.
 23. Burnod L, Patterson K, Dickinson K, Coveney J. Sharing the load: A qualitative exploration of what mothers and fathers believe the father's role should be in food provisioning. *Appetite*. 2022;176:106101.
 24. Damen FWM, Luning PA, Fogliano V, Steenbekkers BLPA. What influences mothers' snack choices for their children aged 2–7? *Food Qual Preference*. 2019;74:10–20.
 25. Holsten JE, Deatrick JA, Kumanyika S, et al. Children's food choice process in the home environment. A qualitative descriptive study. *Appetite*. 2012;58:64–73.
 26. Johnson CM, Sharkey JR, Dean WR, et al. It's who I am and what we eat. Mothers' food-related identities in family food choice. *Appetite*. 2011;57:220–228.
 27. Boak R, Virgo-Milton M, Hoare A, et al. Choosing foods for infants: a qualitative study of the factors that influence mothers. *Child Care Health Dev*. 2016;42:359–369.
 28. Braun V, Clarke V. *Thematic Analysis: A Practical Guide*. SAGE; 2022.
 29. Braun V, Clarke V. To saturate or not to saturate? Questioning data saturation as a useful concept for thematic analysis and sample-size rationales. *Qual Res Sport Exer Health*. 2021;13:201–216.
 30. Sim J, Saunders B, Waterfield J, Kingstone T. Can sample size in qualitative research be determined a priori? *Int J Soc Res Methodol*. 2018;21:619–634.
 31. Malterud K, Siersma VD, Guassora AD. Sample size in qualitative interview studies: guided by information power. *Qual Health Res*. 2016;26:1753–1760.
 32. Johnson CM, Sharkey JR, McIntosh AW, Dean WR. "I'm the momma": using photo-elicitation to understand matrilineal influence on family food choice. *BMC Womens Health*. 2010;10:21.
 33. Bresnahan M, Zhuang J, Zhu X. Why is the vegan line in the dining hall always the shortest? Understanding vegan stigma. *Stigma Health*. 2016;1:3–15.
 34. Burton A, Hughes M, Dempsey RC. Quality of life research: a case for combining photo-elicitation with interpretative phenomenological analysis. *Qual Res Psychol*. 2017;14:375–393.
 35. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. 2006;3:77–101.
 36. Vollmer RL, Mobley AR. Parenting styles, feeding styles, and their influence on child obesogenic behaviors and body weight. A review. *Appetite*. 2013;71:232–241.
 37. Schwartz C, Scholtens PAMJ, Lalanne A, et al. Development of healthy eating habits early in life. Review of recent evidence and selected guidelines. *Appetite*. 2011;57:796–807.
 38. Scaglioni S, Salvioni M, Galimberti C. Influence of parental attitudes in the development of children eating behaviour. *Br J Nutr*. 2008;99(suppl 1):S22–S25.
 39. Mitchell GL, Farrow C, Haycraft E, Meyer C. Parental influences on children's eating behaviour and characteristics of successful parent-focussed interventions. *Appetite*. 2013;60:85–94.
 40. Cole M, Morgan K. Vegaphobia: derogatory discourses of veganism and the reproduction of speciesism in UK national newspapers. *Br J Sociol*. 2011;62:134–153.
 41. Moore AP, Milligan P, Rivas C, Goff LM. Sources of weaning advice, comparisons between formal and informal advice, and associations with weaning timing in a survey of UK first-time mothers. *Public Health Nutr*. 2012;15:1661–1669.
 42. Maryniak NZ, Sancho AI, Hansen EB, Bøgh KL. Alternatives to cow's milk-based infant formulas in the prevention and management of cow's milk allergy. *Foods*. 2022;11:926.
 43. Bocquet A, Dupont C, Chouraqui JP, et al. Efficacy and safety of hydrolyzed rice-protein formulas for the treatment of cow's milk protein allergy. *Arch Pediatr*. 2019;26:238–246.
 44. Johnson BJ, Golley RK, Zarnowiecki D, et al. Understanding the influence of physical resources and social supports on primary food providers' snack food provision: a discrete choice experiment. *Int J Behav Nutr Phys Act*. 2020;17:155.
 45. Thullen M, Majee W, Davis AN. Co-parenting and feeding in early childhood: reflections of parent dyads on how they manage the developmental stages of feeding over the first three years. *Appetite*. 2016;105:334–343.
 46. Petrunoff NA, Wilkenfeld RL, King LA, Flood VM. 'Treats', 'sometimes foods', 'junk': a qualitative study exploring 'extra foods' with parents of young children. *Public Health Nutr*. 2014;17:979–986.
 47. Wild CE, Rawiri NT, Willing EJ, et al. Challenges of making healthy lifestyle changes for families in Aotearoa/New Zealand. *Public Health Nutr*. 2021;24:1906–1915.
 48. Jones BL. Making time for family meals: parental influences, home eating environments, barriers and protective factors. *Physiol Behav*. 2018;193:248–251.
 49. Tedstone A, Nicholas J, MacKinlay B, et al. Foods and drinks aimed at infants and young children: evidence and opportunities for action. Public Health England. <https://www.gov.uk/government/publications/commercial->

- infant-and-baby-food-and-drink-evidence-review. Accessed March 3, 2023.
50. Stordy BJ, Redfern AM, Morgan JB. Healthy eating for infants—mothers' actions. *Acta Paediatr*. 1995;84:733–741.
51. Allès B, Baudry J, Méjean C, et al. Comparison of sociodemographic and nutritional characteristics between self-reported vegetarians, vegans, and meat-eaters from the NutriNet-santé study. *Nutrients*. 2017;9:1023.

ORCIDs

Eliza Jones: <http://orcid.org/0000-0001-7906-5314>

Amy E. Burton: <http://orcid.org/0000-0002-3698-0712>