

“Not just students in need”: Findings from a nominal group technique study of what parents want in an Australian school-provided meal system

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Abstract

Objective: Interest in national adoption of school-provided meals is growing across Australia; however, parent perspectives are not well understood. This study aimed to understand the most important features of a potential school-provided meal system to parents of primary school children in Australia.

Methods: Virtual Nominal Group Technique workshops with Australian caregivers of primary school-aged children were held to identify, discuss and prioritise features. Discussions were noted and collated collaboratively with participants, with quotes collected. Top voted features were scored using relative importance.

Results: Five workshops with 25 total participants identified 28 diverse features, with interest in a comprehensive, well-designed system. Priority features were nutrition (importance score 0.46), cost (0.42), stigma considerations (0.32), catering to dietary requirements (0.29) and sustainability and waste (0.25).

Conclusions: Findings demonstrated the diverse considerations for a parent-accepted school-provided meal. Prioritised features align with initiatives internationally and locally, indicating feasible strategies to inform an acceptable Australian school food transformation.

Implications for public health: Provision of universally available, accessible and nutritious meals aligns with parent values and creates opportunity for public health impact. Findings can be used to inform the design of school food programs, supported by implementation strategies used internationally and locally, conducive to optimum child and parent health outcomes.

Key words: health promotion, childhood nutrition, parent/caregiver, perspectives, school meal, food provision

Introduction

Children will consume over 2000 lunches at school across their years of schooling.¹ This means that schools, and particularly school lunches, provide a unique health promotion opportunity with reach to all children, regardless of socio-economic circumstance and cultural background.² Internationally, children access lunch at school via many different models, including lunches packed at home (i.e. lunchboxes, packed lunch) and school-provided lunch or meal(s).^{3,4} Additional models include food relief provision, and commercial food offerings, e.g. canteens, vending machines and local businesses.⁴ The model of school food influences the food environment and health promotion opportunities, while placing

responsibility on various key stakeholders, including parents/caregivers (i.e. those responsible for the care of children, hereon referred to as parents), schools, government and non-government organisations.

Universal school-provided meals, where all children in a school are provided a school lunch, can deliver benefits in children's health, development, wellbeing, education and equity.⁵ School-provided meals are associated with better diet quality compared to a packed lunch.⁶ School-provided meals reduce parent burden in purchasing and packing lunches, reduce the complexity of school nutrition promotion activity, and are a social safety net for all children, with approximately 50% of children globally receiving school-provided

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meals.⁷ Countries including Australia, Canada and New Zealand that historically follow a predominantly home-packed lunch model are increasingly exploring the potential of transforming to a school-provided meal model, with various meal programs emerging over recent years.^{1,3,8–10}

Previous research has explored the perspectives of Australian stakeholders, including primary school students, education staff, health promotion staff and food industry staff, finding support and identifying key considerations for school-provided meals.^{11,12} However, a system transformation would require a shift in the social norms of food provision, from solely a parent responsibility towards a shared community responsibility, with potential to relinquish parent responsibility in feeding their child.^{13,14} As parents are a large stakeholder group and primary food providers,¹⁵ including financially, consultation is required to ensure a potential school-provided meal system would be acceptable to parents and maintain their autonomy in their child's food provision. While emerging evidence indicates parent interest in a school-provided meal offering,^{16–18} there is limited understanding of the system components parents would be most interested in, hereon referred to as the features. Understanding what features are a priority to parents can inform policymakers of what school meals need to look like and why, enabling the tailoring of new school-provided meal systems to meet families' needs and paving the next steps for school food transformation. Therefore, this study aimed to understand the most important features of a potential school-provided meal system to parents of primary school children in Australia.

Methods

Study design and methodology

To understand Australian parent perspectives, this study used the nominal group technique (NGT) design to collect cross-sectional quantitative and qualitative data. The NGT process is a structured variation of small-group discussions or focus groups.¹⁹ It is a collaborative consensus process designed to prioritise ideas amongst a small group. The NGT process is a resource-efficient method, allowing for the inclusion of a diverse range of participants in a low-burden workshop that is short in duration, in comparison to interviews and surveys.^{20,21}

The NGT workshops sought to explore, contextualise and reach consensus on findings to the Australian parent population and school food transformation environment from an international literature review.²² The review synthesised globally what parents/caregivers identify as the key features of school food models, including 26 studies from 11 countries.²² The features identified in the review are indicated in Table 1.

The present manuscript is reported according to the requirements of the strengthening the reporting of observational studies in epidemiology statement for cross-sectional studies.²³ This study was approved by the Human Research Ethics Committee of Flinders University (5812). All participants provided informed consent prior to participating.

Participants

Eligible workshop participants were Australian parents of primary school-aged children (aged between 4–12 years) who were fluent in written English. The workshops were advertised using targeted, paid

Meta adverts and flyers distributed through several organisations, community groups and schools. Participants expressed their interest using a brief online survey via Qualtrics, which confirmed eligibility, collected socio-demographics and availability. Postcode was used to determine participant state/territory, remoteness and Index of Relative Socio-economic Advantage and Disadvantage 2021 (SEIFA) (an Australian index considering income, education and employment in specific living areas, therefore indicating the social and economic well-being in that region) using Australian Bureau of Statistics data.^{24,25} Participants were then contacted via email and/or phone to schedule workshops. Participants were provided an AUD\$10 Prezzy voucher to reimburse internet expenses following workshop completion.

Positionality statement

The research team brings together expertise in public health (ACM, DCD, BJJ, RKG), school food (ACM, BJJ, RKG), and experience in the Australian primary school system as a parent (RKG). The data collection team consisted of white females with no children, therefore, did not approach this research with personal experience of parenting or cultural adversity. All research is also conducted in consultation with an advisory group of school stakeholders, including parents and educators, to ensure the research methods are appropriate and inclusive for participants, while enabling transparency in analyses. Careful consideration was taken to mitigate the influence of the researchers on parent participants during the workshops, through neutral positioning and reflexive meetings held between the research team to bracket assumptions, reflect on findings and reduce the influence of bias during data analysis.

Instrumentation

The NGT process was conducted within virtual 1.5-hour workshops using Microsoft Teams (Version 1.0; Microsoft). The workshop was held by two researchers, one who facilitated (ACM) and the other who scribed notes and provided attendees with any technical support (DCD). Workshops were audio-recorded, which was later transcribed using Fireflies AI transcription service (Fireflies) and checked by a researcher for accuracy (ACM).

Participants were provided context of the current school food system in Australia, a summary of school-provided meal systems internationally and introduced to a potential school-provided meal system in Australia at the beginning of the workshops. The research aim and findings of the previous review, including the 15 parent-identified features of school food systems internationally and their definitions were described by the facilitator. Presentation of the existing features at the beginning of the NGT process provided participants further relevant context, examples of 'features' of school food to assist with participant understanding and was time efficient to reduce participant burden. Participants were prompted to consider if there were 'any other important features of an Australian school-provided meal system that aren't included?'. Participants then completed the four NGT stages: brainstorming additional features; recording features; discussing features; voting on ideas,^{20,26} further described in Supplementary file 1.

Following the discussion phase, the final list of features was collated and transferred to a Qualtrics questionnaire and shared with participants for voting. Participants voted on the most important features to make a school-provided meal system acceptable to them

as a parent/caregiver. Participants voted for a total of five features, selecting one feature per rank position. Votes were scored, with the top-voted item from each participant receiving a score of 5 points, the second voted item receiving 4 points, etc.²⁰ The total scores for each feature were summed, and the top five scored features were shared with participants, providing an opportunity for further comment. Data captured from each workshop included a list of features, definitions and discussion points, audio and chat transcripts, and voting scores on features.

Sample size

Best practice guidelines for NGT studies recommend aiming for 6-8 participants per workshop.^{11,20,21} The number of workshops is based on the principle of data saturation, the point at which additional workshops do not provide new insights, themes or information related to the phenomena of interest.²⁷ The aim was to conduct a minimum of three workshops, with 7-10 participants scheduled per workshop, to account for non-attendance.

Data analysis

Analysis of qualitative data

Qualitative data consisted of feature lists, definitions and workshop discussion points, and workshop transcripts. Discussion points were summarised within workshops by the scribe and therefore checked by participants live in workshops, ensuring qualitative summaries accurately reflected the discussion. Data checking by ACM was conducted at the end of each workshop to understand data saturation. Data saturation was defined as no new features identified and consistency in the discussion of the features for at least two sequential workshops. Identical features identified in multiple workshops were collated following each workshop. Collation of newly identified identical features across different workshops was aided by the cross-checking of features between workshops with participants to confirm if features and definitions were identical, followed by discussion between ACM and DCD. All features were then collated to form a comprehensive list of all features and definitions, from all workshops.

Following completion of all workshops, transcripts were reviewed by ACM to confirm the workshop discussion notes and identify key quotes. Quotes capturing the workshop discussion points were extracted to ensure the parent voice is accurately presented.²⁸

Analysis of quantitative data

Quantitative data consisted of the voting scores used to determine the overall importance score and therefore identify the priority features. Voting scores included the 1) total votes across all workshops and 2) top five ranked features clustered by workshops and scored, which were combined to form 3) overall importance. This allowed consideration of the influence of workshops on conversation clustering and individual perspectives.²⁰ As informed by the qualitative data, scored votes for collated, identical features were combined.

- 1) The total score across all workshops was used to calculate the importance score for participants.

Importance score by participants = total score from individual votes / (total participants (24) x maximum score per person (5))

- 2) Total scores from workshop rankings were used to determine the importance score, relative to the number of workshops it was raised in.

Relative importance score clustered by workshops = total score from workshop ranking / (number of workshops feature was discussed in x maximum score per workshop (5))

- 3) Overall importance considered both the individual and workshop-clustered importance scores, used to determine the overall rankings of the items, out of a maximum value of one.

Overall importance = (Importance score by participants x 0.5) + (Relative importance score clustered by workshop x 0.5)

Results

Sample characteristics

Eighty-eight participants completed the expression of interest survey. While 48 eligible participants stated they were available at the workshop day/times and scheduled into a workshop, 40 participants did not respond to communication or were unavailable to participate in a workshop and therefore were lost to follow-up. Five workshops were held, with a total of 25 participants attending (4-9 participants per workshop). No new features or unique information was identified following analysis of the transcripts 4 and 5 when compared to the initial three transcripts. While all participants contributed to the feature identification and discussion, captured in the qualitative data, 24 contributed to the quantitative voting, due to technology challenges for one participant.

Most participants (n=19/25) identified as women and were married/de facto/partnered (n=19/25), living in major cities (n=21/23) across five Australian states. Nine participants were born outside of Australia or self-identified as culturally diverse. Most participants worked part-time (n=14/25) and were highly educated, with the majority having completed tertiary education (n=15/25) or a postgraduate degree (n=6/25). Participants lived across areas of varying levels of socio-economic advantage, with participants from each quintile of socio-economic advantage (SEIFA). Household income ranged, with seven participants with a household income between \$20,800-\$90,999 and 11 with an income of \$91,000+-. Further participant characteristics are available in [Supplementary file 2](#).

Features

Participants were presented with 15 pre-identified features and definitions from the literature. Participants discussed existing features and identified new features, resulting in 28 total features. [Table 1](#) describes the 16 most important features, definitions and importance rankings. Top-ranking features and related items are discussed in text with key quotes, with all other features and additional quotes summarised in [Supplementary file 3](#).

When voting, participants prioritised the non-negotiable features required for a school-provided meal system to function, in addition to a range of features they view as important in their acceptability. The top five features of highest importance were nutrition, cost, stigma considerations, catering to dietary requirements, and sustainability and waste. Features that were commonly voted on included a range of new features such as stigma considerations, catering to dietary

requirements and sustainability and waste, as well as features from the literature review. Parents discussed a wide range of features and concepts they would be interested in seeing within a school-provided meal model. While not top priorities, all features identified can be considered important to parents and parents acknowledged features were often interrelated and relied on one another.

Top 5 ranked features

Nutrition

Nutrition was the top-ranked feature, with an overall importance score of 0.46. Nutrition was consistently discussed as an important feature, ranking within the top five features in four of the workshops. Nutrition was consistently described as needing to be a focus of the program and was required to make school-provided meals acceptable.

Nutrition was often discussed by parents alongside quality, which was a top ten ranking priority. Parents desired food that was both nutritious and of good quality, with some noting the differences in the definitions of these features.

Nutrition was framed as food that supported a 'mind-body connection', meaning it supported concentration and learning for the classroom. Parents described the importance of consuming nutritious food on educational outcomes. This was discussed as contrasting with current food relief or canteen programs, which parents discussed as being focused on quantity and using donated foods and not focused on nutrition or quality.

"...one of the struggles I have ... the ways that food relief is provided is that it's often just getting carbohydrates because it's cheap and ... available. But what we actually need in bellies for brains is a wide range of quality fresh fruit, vegetables, protein..."
– #15, Mother, workshop 3

The Australian dietary guidelines and the creation of new nutrition guidelines for school-provided meals with dietitians were discussed.

"I guess it would be good to have nutrition profile be matched to the growth stage of the child/their needs.. eg protein and calcium etc" – #9, Mother, workshop 1, message in meeting chat

Parents noted their interest in having balance when it came to the nutrition of food, including items on the menu that aren't nutritious but contribute to the enjoyment of the meal, such as cake. This relates to creating positive food relationships and not restricting children or teaching them that foods are 'bad'.

Cost

The cost of meals was of high importance to parents, with an overall ranking of 2 and a score of 0.42, consistently discussed across all workshops, and ranked as a top priority for three of the five workshops. Many parents discussed the need for such a system to be affordable for all families. Parents identified their need for the price of food to be aligned with a measure such as household income. Government contribution or subsidies were positioned as a key enabler for this. Achieving equity across different schools and within each school was a key consideration.

"With funding I think if it is part or wholly 'parents pay' I think it should be like CCS [Child Care Subsidy] - parents pay based on income" – #8, Mother, workshop 1, message in meeting chat

Concerns were also raised by some parents about making sure all those in need are captured by the income measure used and how you

can ethically distinguish need, noting eligibility challenges in existing systems. Other parents posed the potential for voluntary contribution, paid alongside school fees. Cost was also discussed in relation to the potential benefits that can be achieved through a school food provision system being available at a lower cost than lunchboxes.

"If you've got four kids and all four kids need lunches ... then that's a lot of money. If a school can provide that and take that off of a parent who is financially struggling, then that could mean a world of difference ... for them." – #24, Mother, workshop 5

Funding for schools and the need for additional budgets to allow for such a system to be implemented was acknowledged by parents, including staffing costs. However, parents acknowledged that investing in a school-provided meal system would be money well spent.

Stigma considerations

Stigma considerations was a new feature identified, ranked third on importance, with an overall score of 0.32, and identified in three workshops. This included considerations centred around preventing emotional harm and supporting positive food relationships. It was defined as the provision of food that doesn't influence shame, dignity and agency. One parent described this as *"increasing equity and removing shame"* (#25, Mother, workshop 5).

School-provided meals were posed as a potential way to achieve greater equity across society. However, parents also considered the risks associated with school-provided meals, including for eating disorders or judgement of quantities consumed.

Concerns were linked to the school food policy and messaging, which was ranked 9 and scored 0.20. These concerns centred around nutrition messaging, including monitoring of children's intake, staff imposing right or wrong quantities, or providing nutrition opinions and categorising food as good and bad. Parents noted a system would need to address these aspects to prevent stigma.

"... having teachers come and say you have to eat the healthy food before the unhealthy food is really unhelpful... So my concerns are ... around ... the policy and messaging..." – #19, Mother, workshop 4

Bullying was described by parents as being prevalent in current lunchbox systems, with shaming of lunchbox contents. School-provided meals were posed as a potential way to reduce feelings of shame and support positive food relationships, if delivered correctly.

"... having [school-provided meals] ... so that then children aren't being shamed for what's in their lunchbox, shaming the children, shaming the parents ... That'll create a healthier relationship with food that will reduce the risks of eating disorders and risk of bullying, risk of ... rejection from peers and things like that." – #24, Mother, workshop 5

Concerns were raised surrounding current food relief practices in Australia and New Zealand and the association with shame, resulting in reduced uptake. Parents noted the importance of ensuring no one is aware who receives free meals to address potential shame if using a subsidised pricing model, with any potential payments occurring behind the scenes.

Catering to dietary requirements

Dietary requirements were ranked fourth, with an overall importance score of 0.29. Dietary requirements were originally captured as a

Table 1: Summary of parent prioritised features of a potential school-provided-meal system in Australian primary schools.

Feature	Definition	Number of workshops feature was discussed in	Priority ranking per workshop					Total number of participants voting on feature	Total score from individual votes	Importance score by participants	Total score from workshop ranking	Importance score clustered by workshop	Overall importance	Overall ranking
			1	2	3	4	5							
Nutrition of food	The perceived nutritional quality of food (based on the Australian dietary guidelines)	5	3	1	2		4	24	43	0.36	14	0.56	0.46	1
Cost of food	Financial costs of providing food	5	2		1		3	24	43	0.36	12	0.48	0.42	2
<i>Stigma considerations</i>	Provision of food doesn't influence shame, dignity and agency	3	-	-		2	3	12	20	0.17	7	0.47	0.32	3
<i>Catering to dietary requirements</i>	Requirements related to child health, i.e. allergies or intolerances, related to the child's medical history	3		-	3	3	-	16	21	0.18	6	0.40	0.29	4
<i>Sustainability and waste</i>	Procurement considerations and management of food waste in the food environment	3	-	4		-	2	12	12	0.10	6	0.40	0.25	5
Food access/availability	Reliable access to food and food readily available when needed	5		3		5	2	24	17	0.14	8	0.32	0.23	6
Quality	Quality of food items, including freshness	5	1					24	25	0.21	5	0.2	0.20	7
Time, effort and convenience	Non-financial resources required for food procurement, preparation and provision	5	4	2				24	20	0.17	6	0.24	0.20	8
School food policy and messaging	School food policy, including healthy eating and packaging policy, teacher monitoring and school food rules	5		2		4		24	18	0.15	6	0.24	0.20	9
Food safety	Handling, preparing and storing food to reduce the risk of foodborne illnesses	5				1		24	20	0.17	5	0.20	0.18	10
Variety	Having a range of different food items, rather than repeated items each school day	5			4		3	24	15	0.13	5	0.20	0.16	11
Food classroom education	Education for students surrounding nutrition and food in school curriculum	5		4			4	24	13	0.11	4	0.16	0.13	12
Catering to child preferences	Child food preferences, enjoyment and restricted/selective eating	5	4				5	24	17	0.14	3	0.12	0.13	13
Eating environment	The school food eating environment, including room setup and area as a social setting	5		5	5			24	15	0.13	2	0.08	0.10	14
Parent/caregiver engagement	Parent involvement in food provision and monitoring of child intake	5		4				24	10	0.08	2	0.08	0.08	15
Eating time	Time allocated specifically for eating in school breaktimes	5	5					24	13	0.11	1	0.04	0.07	16

New features indicated in *italics*.

In addition to these features, *Mind-Body connection*, *Cooking/preparation facilities*, *Child input – preparation or dining*, *Quantity*, *Community engagement*, *Flexibility*, *Cultural considerations*, *Employment opportunities*, *Resourcing arrangements*, *Government school meal program policy*, *Food sourcing*, and *Champion/Advocate* were raised in a single workshop or received a score of <5.

component of child preferences, with limited findings from the literature review on dietary requirements.²² However, parents recognised this as a separate feature across three workshops and noted the importance in the Australian context. Dietary requirements were defined as requirements related to child health, i.e. allergies or intolerances, related to the child's medical history, which parents discussed as being a safety issue and posed as a non-negotiable, but challenging consideration.

One parent described how dietary requirements were addressed at their previous hospital workplace and the challenging feasibility of catering to all requirements. Dietary requirement discussion was followed up with discussion of cultural considerations, including kosher and halal diets. These features were all discussed as necessary considerations in designing an inclusive and appropriate menu.

"We're really lucky in this country that we have such a social and culturally diverse country that there would be so many options that would have to be available ... you'd have to cater for so many allergies and medical conditions and preferences..." - #18, Mother, workshop 4

Parents discussed that the menu should be diverse and include a range of different food items, including different cultural foods, also relating to the variety and cultural considerations features. International examples were referenced, including the United Kingdom, where a menu was offered that addressed dietary requirements and catered to child preferences with offering a large number of options. However, catering to preferences of children was a lower-ranked feature (13th), with parents conscious of the value of exposure and learning around different foods, providing a beneficial learning experience in the school setting.

"... I'm a little bit wary of too much catering to preferences because I think it's been really good for my children to be exposed to new foods, and if you ask them what they want to have for lunch they will tell you the same thing all the time because they know they like it and it's a safe food..." #8, Mother, workshop 1

Sustainability and waste

Sustainability and waste was a new feature identified, ranked 5th with a score of 0.25, raised in three workshops. It was defined across workshops as procurement considerations and management of food waste in the food environment.

School meals were recognised as having the potential to be more environmentally friendly through reducing individual food packaging, commonly used in lunchboxes. Parents discussed the ways a school-provided meal program could be sustainable, such as using locally sourced food and 'seconds' of food products, including imperfect vegetables.

"... the supermarkets reject a whole heap of food because, like, it's too big or too small or wrong colour or whatever ... they're still perfectly fine to eat, but maybe they could use that because it's preventing food wastage" - #14, Father, workshop 3

Discussions for addressing food waste included the potential to repurpose food for those in need through charitable donations, composting organics or making leftovers available for families to purchase.

"I would love to be able to ... do something with the leftovers or buy leftovers and take them home as a family meal or something like that ... because I think that would sort of a) alleviate wastage or b) if your kids liked something..." - #2, Mother, workshop 1

Discussion

This study identified and prioritised the features that parents of primary school-aged children consider important for a school-provided meal system. Prioritisation indicated nutrition, cost, stigma, dietary requirements and sustainability and waste were of highest priority for Australian parents, being critical in forming an acceptable school-provided lunch offering. The features can be contextualised against existing international school-provided meal programs and emerging movements, internationally and locally. These findings can inform innovation efforts in Australia to provide school-provided meals, ensuring the system is available and accessible for all students and food provided is conducive to student's health, growth and development.

Priority features align with recently growing considerations in school-provided meal programs internationally. Particularly modern transitions of school food programs, integrating health and sustainability, considering community and societal impacts, with programs optimised to increase potential benefits.²⁹ Internationally, increasing recognition of stigma and sustainability over the previous decade has resulted in implementation of universal free meals in California and Maine³⁰ and increasing recommendations for cashless systems in the United Kingdom to limit subsidised meal stigma.³¹ These actions address similar stigma and cost concerns described by parent participants in the present study. International sustainability actions include sourcing local food and limiting waste production in Sweden and France to reduce the environmental impact,^{29,32,33} and policy alignment with the Sustainable Development Goals in Canada.³⁴ Such successes indicate aligned priorities of the present findings with actions in existing school-provided meal systems, providing strategies that can feasibly be implemented in newly adopted systems transforming from packed lunch provision.

Findings can also be positioned within the Australian literature exploring the views of other stakeholders and parent populations. Results align with previous workshops with Australian stakeholders, including education staff, health promotion staff and food industry staff,¹¹ identifying school lunch prepared onsite using a rotating menu of seasonal produce, minimally processed food, and a range of cultural foods, offering social pricing, as having the highest potential impact and achievability.¹¹ This aligns with the discussions in the present study, with parents recognising the diversity of the population³⁵ and the need for an inclusive meal system. Research exploring the Australian child perspective on a hypothetical school-provided meal¹² found children described a menu with variation and choice, noting the need for catering to diverse dietary requirements.¹² Students described the eating environment, including space to eat the food and social interactions about the meal experience they were sharing,¹² closely aligning to the features discussed in our study. Additionally, majority of Australian parents would be interested in a school-provided meal offering, according to survey findings,^{17,18} with comparable barriers discussed in one study, including cost, equity, health, preferences and conditions and responsibility.¹⁷ This alignment of the consistent parent perspective with other stakeholders indicates some key considerations to meet population needs in Australia, critical in informing the transformation of the school food system.

Implications for public health

Findings indicate the importance of involving parents to ensure their needs as key stakeholders are met, holding a central role in children's diets as the primary food providers. Transitioning to a school-provided meal model in current parent-provided systems would shift responsibility and can reduce parent autonomy. As with many public health initiatives, parents, students and other stakeholders must feel the system aligns with their priorities and therefore are more likely to invest and participate. Creating a system, underpinned by policy, which integrates stakeholder perspectives and aligns with their needs can enable the success of a potential school-provided meal, gaining buy-in and increasing uptake from families, described in the Needs Assessment & Engagement Guide for school food programs in Canada.³⁶ Future research should continue to explore parent interest and engage students to ensure their voices are heard, particularly across population groups and on various socio-ecological levels (i.e. considerations on the individual, school, state and national levels), to create a system suitable for all families.

The present study has demonstrated the considerations in developing a parent-accepted transformation to existing school food systems. These findings can be used by policymakers, schools and health professionals as an initial roadmap to the design of school food programs that centre the needs of parents. Particularly ensuring systems consider providing universally available and accessible, nutritious meals that meet the needs of parents as key stakeholders and strive for improving equity in food provision. The results emphasise the potential of using existing international examples as an initial framework and tailoring appropriate to the parent needs, ensuring learnings are taken from successful tried and tested models that are successful in health promotion wherever possible to increase feasibility, acceptability and impact on public health.

Strengths and limitations

A strength was the NGT method, informed by literature, allowing all participants to contribute and results collating all participant views.^{19–21} Collation of findings on a shared document during workshops allowed participants to participate in the analysis, reducing researcher bias on interpretation. Data saturation demonstrates that adequate data were collected to support interpretations. Limitations included that parent participants represent a slightly higher level of advantage and education than the general parent population, so views may vary with alternate population groups. Therefore, it is recommended that future research of school food initiatives should continue to engage parents, using co-design to ensure appropriateness, particularly for diverse populations. Additionally, while the grouping of ideas into features enables identification of focus areas for future research, parents found features were not unique and many features were associated with one another, noting challenges with prioritisation.

Conclusion

This study demonstrated the potential of school-provided meal programs for parents, including the priority areas of nutrition, cost, stigma, dietary requirements and sustainability and waste. Findings align with previous research on school-provided meals and growing Australian stakeholder perspectives, indicating the potential for using learnings from existing programs. Further research to understand

priorities across different population groups is needed to design a school-provided meal program that is tailored and meets the needs of each family.

Conflicts of interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Ethical approval

This project was performed in accordance with the ethical standards laid down in the Declaration of Helsinki and was approved by the Human Research Ethics Committee of Flinders University (5812).

Author contributions

All authors were involved project conceptualisation and research design. ACM and DCD conducted the workshops. ACM analysed the data and all authors contributed to the analysis and interpretation of the findings. The manuscript was drafted by ACM, who has responsibility for final content, and all authors critically reviewed and approved the final manuscript.

Data sharing

Data described in the manuscript, code book, and analytic code will be made available upon request pending ethical approval.

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Appendix A Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.anzjph.2025.100221>.