Research Article

Determinants of Parental Perception and Adherence to Food-Based Dietary Guidelines in Sri Lanka: Challenges and Policy Implications

R.M.K.G.U. Rathnayaka[1*], H.P.T.N. Silva[2], M. A. Jayasinghe[3] and D. Kuruppuarachchi[4]

geethika@sjp.ac.lk

[1]Faculty of Graduate Studies, University of Sri Jayewardenepura, Sri Lanka

[2]Department of Social Statistics, Faculty of Humanities and Social Sciences, University of Sri Jayewardenepura, Sri Lanka

[3]Department of Food Science and Technology, Faculty of Applied Sciences, University of Sri Jayewardenepura, Sri Lanka

[4]Department of Accountancy and Finance, University of Otago, New Zealand

Abstract

Understanding the factors influencing parental perceptions and adherence to Food-Based Dietary Guidelines (FBDGs) is essential for improving nutrition and health awareness in Sri Lanka. This study examines these factors within the Colombo district, revealing that adherence remains low despite the Ministry of Health's introduction of FBDGs in 2021. Data was collected from 252 participants through a self-administered questionnaire assessing perceptions of FBDGs, awareness programs, social support, and family involvement. Reliability analysis showed a high internal consistency (Cronbach's Alpha = 0.849), and sample adequacy was confirmed (KMO = 0.752). Factor analysis identified four key latent factors: Family Support and Social Participation (FSSP), Community Awareness and Social Participation (CASP), Parental Encouragement and Social Promotion (PESP), and Perceived Ease and Utility (PEPU). FSSP had the highest mean score (4.20), highlighting the crucial role of family support, while CASP had the lowest (3.02), reflecting the limited effectiveness of community awareness programs. GLM analysis revealed significant relationships between demographic factors and these variables. Age significantly influenced CASP ($p = 0.049$) and PESP ($p = 0.006$), while education level affected FSSP ($p = 0.021$) and CASP ($p = 0.026$). Household income impacted FSSP ($p = 0.002$), CASP ($p = 0.043$), and PEPU ($p = 0.001$), with family type significantly affecting FSSP ($p = 0.027$).

These findings highlight the need for targeted interventions to enhance community awareness, improve access to dietary information, and consider demographic factors to strengthen food literacy and adherence to FBDGs for better public health outcomes in Sri Lanka.

***Keywords**: Community Awareness, Family Support, Food-Based Dietary Guidelines, Food Literacy, Parental Perceptions*

1. Introduction

Public health discussions today have made understanding how nutrition directly affects our health easier. Therefore, nutrition is not a mere factor in public health but a pillar necessary for avoiding nutrition-related diseases and wellness throughout life, as highlighted by the Ministry of Health Sri Lanka (2020). In today's health-related environment, food literacy has become the primary factor in determining how people approach particular ideas and practices concerning their diet. Food literacy is more than nutrition knowledge; it includes competencies required per the current food context (Vidgen and Gallegos 2014; Perry *et al.* 2017). This idea is especially useful in the Sri Lankan context since death from non-communicable diseases and other ailments occur alongside social and economic transformation (Ministry of Health Sri Lanka, 2020). Individuals require proper instructions for better quality and healthy foods.

Food-based dietary guidelines (FBDG) are an essential link between scientific information and practical application, or they put into practice the knowledge about how particular foods either benefit or harm an individual (Ministry of Health Sri Lanka, 2021). These guidelines offer realistic recommendations for adhering to a health-supporting nutrition plan in the form that conveys up-to-date knowledge of diet easily. However, this success depends on food literacy as this dispositions the people and families to the recommendations as they look for points for implementing them under given socio-cultural and economic factors. As it emerged in the World Health Organization (2023), several challenges, such as social and economic inequality, have hindered the implementation of these guidelines, especially in developing countries like Sri Lanka.

From the evaluated literature, it could be noted that parents have a central and direct influence on the dietary practices of the home. Besides directly providing for their children's consumption, parents are involved in many meals and food choices. They shop for food, cook food, and set a specific regimen, becoming agents for nutritional

socialization. The level at which parents comprehend, embrace, and practice the recommended dietary measures has a bearing on their children's nutrition. Food literacy is important here, as it empowers the parents with the information and other know-how on deciding on foods that should be taken, understanding non-phrasing related to foods, and other matters of putting into use the recommendations concerning the families' contexts. Such role reversals also support the need to increase the focus on parents' knowledge and attitudes regarding the nutritional guidelines for their families (Wijayaratne *et al.* 2018).

In understanding the need to communicate and advocate healthy dietary practices starting at the household level, the Nutrition Division of the Ministry of Health Sri Lanka has developed The Sri Lankan Food-Based Dietary Guidelines 2021. This initiative marks significant positive progress in procuring national nutritional problems due to its recommendatory nature. However, using and applying these guidelines can only be successful if parents have adequate food literacy to apply them daily. Since parents are important community influencers within households, they are always instrumental in implementing FBDG.

The current study aims to comprehensively identify the factors influencing parental perception of FBDG in Sri Lanka. This study does not restrict the knowledge gained to purely academic interests. However, it addresses a necessary void in the cross-sectional understanding of parental perceptions linked to dietary guidelines from a developing country's perspective. Therefore, the findings can be helpful to policymakers, health professionals, and community workers in planning and implementing programs that will improve the consumption of recommended diets, especially the preparation and consumption of foods at the household level. Both what parents think about food and the amount of food literacy they have should be known to develop culturally tailored, feasible strategies that may encourage nutrition improvement in families in Sri Lanka. Furthermore, it gives insights into cultural, social, and economic contexts that determine the practical implementation of FBDG.

In response to evolving nutritional challenges in Sri Lanka, this study investigates the key factors that shape how parents perceive and implement the Food-Based Dietary Guidelines (FBDG). The findings will inform healthcare practitioners and support efforts to enhance parental awareness, ultimately promoting healthier nutrition and lifestyles among families nationwide.

2. Methodology

This study used a quantitative research design to examine parental perceptions of FBDG in Sri Lanka. The Colombo District was selected as the study setting due to its unique characteristics: socio-economic diversity, representation of both urban and suburban populations, and its position as a hub of cultural and dietary practices. According to official administrative data, Colombo District comprises approximately 560 Grama Niladhari (GN) divisions (Department of Census and Statistics, 2020). To ensure geographic and demographic diversity, a two-stage cluster sampling process was employed. First, 20 GN divisions were randomly selected using a computer-generated number system, helping to avoid bias and include areas from different social and economic backgrounds. Then, within each of these selected GN divisions, lists of eligible parents with at least one child were gathered using school records and community health data. From this pool, 252 parents were chosen through simple random sampling to ensure fair community representation. The sample size of 252 was determined using Cochran's formula for sample size calculation for proportions, with a 95% confidence level, a 5% margin of error, and an assumed response distribution of 50% ($p = 0.5$), which provides the most conservative estimate. This calculation yielded a minimum sample size of 384. The study achieved a response rate of 65%, reflecting moderate participant engagement. To reduce potential non-response bias, data collection was supported by multiple follow-up reminders and flexible scheduling to encourage participation. Demographic characteristics of the respondents were also compared with census-based population parameters of the Colombo District to ensure representativeness and generalizability of the findings. Despite logistical constraints associated with face-to-face administration, a final sample of 252 participants was achieved. This sample size was deemed sufficient to ensure statistical power for detecting moderate effect sizes and to support the validation of the newly developed instrument (Hertzog, 2008). Furthermore, missing data was handled using listwise deletion, where only cases with complete responses (252) for the relevant variables were included in the analysis.

To assess parental awareness and adherence to Sri Lanka's Food-Based Dietary Guidelines (FBDGs), a newly developed instrument "The Parental Awareness to Sri Lanka's Dietary Guidelines (PASL-DG) Questionnaire" was specifically designed for this study. The decision to develop a new instrument stemmed from the lack of a validated local tool that comprehensively assessed parental food literacy and

behavioral alignment with the Sri Lankan FBDGs. The questionnaire was developed based on the first 14 out of the 18 FBDGs published by the Ministry of Health, Sri Lanka, in 2021. These guidelines are part of the global FAO/WHO initiative that encourages countries to create culturally relevant and evidence-based dietary recommendations aimed at promoting optimal health. Each guideline is framed as an actionable message rooted in local dietary customs and public health priorities.

Structure and Domains

The final PASL-DG questionnaire consisted of 100 items distributed across five key domains, reflecting a holistic approach to assessing parental dietary awareness and behaviors:

Table 1: The domains and the number of items in the instrument.

Domain	Name of the Construct	Total of items
1	Demographic characteristics	9
2	Dietary Preferences & Health Status	3
3	Awareness of Food-based Dietary Guidelines	34
	Awareness of Food-based Daily Dietary Practice	37
4	Perception of Dietary Guidelines-related Factors	16
5	Nutrition Informational Resources	1
Grand Total		100

These domains were conceptualized to capture not only awareness and perceptions but also practical dietary behaviors and access to nutrition-related information, ensuring comprehensive measurement aligned with national dietary priorities.

Content Validation

The initial draft of the questionnaire was subjected to content and language validation by a panel of six experts in the fields of nutrition, public health, and behavioral science. The experts assessed the relevance, clarity, and consistency of the items with the FBDGs and recommended several modifications to enhance the instrument's contextual accuracy and specificity.

The Content Validity Index (CVI) was then calculated using both S-CVI/Ave (average scale-level CVI) and S-CVI/UA (universal agreement among experts) (Yusoff, 2019a). The results demonstrated excellent content validity:

- S-CVI/Ave: 1.00 for all domains, except Domain 3(i), which scored 0.99
- S-CVI/UA: 1.00 for all domains, except Domain 3(i), which scored 0.94
- Average Proportion of Items Judged Relevant by Experts (APIJRE): ≥ 0.99 across all domains

These values exceed the standard acceptability threshold of ≥ 0.80, indicating strong content validity for the newly developed instrument (Davis, 1992).

Face Validation and Pilot Testing

Following expert review, the revised questionnaire was pilot tested with a group of 30 parents representing the target population, encompassing a range of age groups, genders, and educational levels. The primary objective of this phase was to assess face validity and whether the questionnaire items were perceived as clear, understandable, and appropriate by respondents.

Participants rated each item's clarity and comprehensibility, and the following indices were computed:

- S-FVI/Ave: 1.00 across all domains
- S-FVI/UA: 1.00 across all domains
- Average Proportion of Items Judged Clear and Comprehensible (APIJC&CE): 1.00

These findings confirm that all items were deemed unambiguous and culturally appropriate, requiring no further modifications (Yusoff, 2019b).

The analytical approach involved multiple stages to ensure robust results. Initially, the data were validated to check internal consistency, sample adequacy, and sufficient relationships among variables before conducting analyses. To explore the underlying determinants of parental perception and adherence to Food-Based Dietary Guidelines (FBDGs), all Likert-scale items (16) from the fourth domain, Perception of Dietary Guidelines-Related Factors, were analyzed using Exploratory Factor Analysis (EFA). The analysis employed principal component extraction with varimax rotation to identify and group the key factors influencing parents' perceptions of the FBDGs. Mean values of clustered FBDGs were calculated and used as indices for each identified latent factor. General Linear Models (GLMs) were used to analyze the relationships between these latent factors and demographic characteristics, allowing for a comparison of how various demographic variables influenced each index. This comprehensive analytical approach facilitated an understanding of the underlying factors' potential roles and detailed insights into parental views of FBDGs, establishing a foundation for future interventions.

3. Results

Of the 252 parents who participated in the study, 56.3% were female and 43.7% were male. This gender distribution closely reflects the general population of Colombo District, where females account for approximately 51% and males 49%, according to the latest census data (Department of Census and Statistics Sri Lanka, 2012), suggesting gender balance in the sample. The majority of participants (62.3%) were aged between 21 and 40 years, 31.7% were between 41 and 60 years, and 5.9% were either below 21 or over 60. This age distribution aligns with Colombo District's working-age population profile, where most adults fall within the 20–59 age range. Education levels were diverse: 36.9% had G.C.E. A/L qualifications, 28.6% had G.C.E. O/L qualifications, 22.6% held bachelor's degrees, and 9.1% had postgraduate qualifications. These figures show slightly higher educational attainment than district averages, which is common in urban and semi-urban settings where educational access is better. Regarding employment status, 62.3% were full-time employees, 9.5% were self-employed, 17.5% were unemployed, and 5.2% were retired. This reflects general employment trends in Colombo, where formal employment dominates, particularly in urban centers. In terms of income distribution, 28% of households reported earnings between Rs. 125,000–175,000, and 26% between Rs. 25,000–75,000, indicating representation from both middle-

and lower-income brackets. Only 12% were in the lowest income group, and 13% in the highest, which mirrors the income disparity typically observed in Colombo District. Regarding family structure, 81.7% of participants lived in nuclear families and 18.3% in extended families. This is broadly consistent with national urban patterns, where nuclear family structures are more common, especially in Colombo. In conclusion, it can be claimed that the sample reflects the diversity of the Colombo District in terms of gender, age, education, income, and family structure, supporting the generalizability of the findings to the broader parent population in the district.

Table 2: Total Variance Explained by the Factors

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.359	33.491	33.491	5.359	33.491	33.491	3.975	24.842	24.842
2	3.228	20.174	53.665	3.228	20.174	53.665	3.693	23.083	47.926
3	1.455	9.091	62.756	1.455	9.091	62.756	1.894	11.837	59.763
4	1.016	6.350	69.106	1.016	6.350	69.106	1.495	9.344	69.106
5	0.989	6.183	75.289						
6	0.748	4.674	79.964						
7	0.592	3.700	83.663						
8	0.555	3.466	87.130						
9	0.436	2.726	89.856						
10	0.400	2.502	92.358						
11	0.353	2.207	94.565						
12	0.293	1.834	96.399						
13	0.208	1.303	97.702						
14	0.156	0.978	98.680						
15	0.111	0.695	99.375						
16	0.100	0.625	100.000						

The Exploratory Factor Analysis revealed four distinct components with eigenvalues greater than 1, collectively explaining 69.11% of the total variance in parental perceptions of FBDGs. After varimax rotation, the first factor accounted for 24.84% of the variance, followed by the second (23.08%), third (11.84%), and fourth (9.34%), indicating a well-structured multi-dimensional construct. The Kaiser-Meyer-Olkin (KMO) value of 0.753 and a significant Bartlett's Test of Sphericity ($\chi^2 = 2454.545$, $p < .001$) confirmed the sampling adequacy and the suitability of the data for factor analysis.

Such factors are Family Support and Social Participation (FSSP), which shows the issue about family involvement and social participation; Community Awareness and

Social Participation (CASP), which underlines the effects of awareness programs; Parental Encouragement and Social Promotion (PESP), which focuses on the roles of parents to promote health eating habits and community participation; and Perceived Ease and Perceived Utility (PEPU): which consider the ease with which the guidelines can be understood and perceived health benefits. These findings reveal the multifaceted factors that impact parental perception of FBDG. Furthermore, the findings expose those participants strongly value Family Support and Social Participation in dietary adherence (Mean = 4.20, SD = 0.55), while perceptions of Community Awareness and Social Participation were less favorable (Mean = 3.02). Parental Encouragement and Social Promotion (Mean = 3.95) and Perceived Ease and Perceived Utility (Mean = 3.39) received moderate agreement, with slightly higher response variability.

Table 3: Factor Loadings: EFA

	Component			
	1 - FSSP	2 - CASP	3 - PESP	4 - PEPU
V4_1_1	-0.074	**0.724**	-0.016	0.260
V4_1_2	-0.015	0.596	-0.173	**0.604**
V4_1_3	0.172	-0.068	0.100	**0.865**
V4_2_1	0.053	**0.738**	0.368	0.010
V4_2_2	0.105	**0.864**	0.202	-0.125
V4_2_3	0.003	**0.742**	0.392	0.073
V4_3_1	0.143	**0.735**	-0.166	-0.160
V4_3_2	0.336	0.483	**0.655**	0.170
V4_3_3	0.379	0.282	**0.751**	-0.115
V4_3_4	**0.598**	-0.199	0.495	0.304
V4_4_1	**0.776**	-0.081	0.108	-0.065
V4_4_2	**0.809**	0.186	0.106	-0.025
V4_4_3	**0.850**	0.112	0.205	-0.006
V4_4_4	**0.690**	-0.045	0.329	0.010
V4_4_5	**0.718**	0.131	0.126	0.244
V4_4_6	**0.565**	0.060	-0.262	0.263

After identifying four latent factors, the next step involved examining their relationships with demographic variables such as gender, age, household income, employment status, education level, and household size. Mean values of the clustered FBDG items were calculated to serve as indices for each latent factor. General Linear Models (GLMs) were then applied to analyze how these demographic characteristics influenced each index. Table 4 outlines these relationships, highlighting the impact of demographic factors on the constructs represented by the latent factors.

Table 4: Significance of Demographic Factors on Latent Factor Relationships: General Linear Model Results

Source	Latent Factors			
	FSSP	CASP	PESP	PEPU
	Sig.	Sig.	Sig.	Sig.
Corrected Model	0.009	0.023	0.039	0.080
Intercept	0.000	0.000	0.000	0.000
Gender	0.459	0.374	0.904	0.748
Age group	0.075	**0.049**	**0.006**	0.443
Education Level	**0.021**	**0.026**	0.099	0.227
Employment	0.719	0.844	0.514	0.859
HH_Income	**0.002**	**0.043**	0.686	**0.001**
Family Type	**0.027**	0.961	0.757	0.397

The statistically significant findings offer valuable insights into how tailored interventions can be designed to improve parental adherence to Sri Lanka's Food-Based Dietary Guidelines (FBDGs). For instance, the significant influence of age on CASP and PESP suggests that younger and older parents may engage differently with community awareness programs and health promotion activities. Interventions targeting younger parents could incorporate more digital outreach and peer-led engagement strategies, while those for older parents might benefit from community-based workshops or printed resources. Similarly, the effect of education level on FSSP and CASP implies that parents with lower educational attainment may experience challenges in family-level support and understanding of community-based dietary messaging. Therefore, simplified, visually driven materials and interactive demonstrations could enhance understanding and retention among less-educated populations. The role of household income across three factors (FSSP, CASP, and PEPU) underscores the importance of economic accessibility. Families in lower-income brackets may need practical, low-cost dietary guidance and support services (e.g., budgeting tips for healthy meals, and community kitchens) to improve both perceived ease and actual adherence to dietary recommendations. Finally, since family type affects FSSP, targeted messaging that differentiates between nuclear and extended families could be beneficial. For example, extended family settings may require broader household-level interventions involving grandparents or other caregivers to build cohesive support for healthy eating. These findings highlight the need for socio-demographically tailored nutrition interventions that address specific barriers and facilitators influencing dietary guideline adherence across diverse parental groups.

4. Discussion

The findings of this study provide novel insights into the underlying determinants of parental perception and adherence to Sri Lanka's Food-Based Dietary Guidelines (FBDGs), with implications both locally and in the broader global context. The identification of four key latent factors Family Support and Social Participation (FSSP), Community Awareness and Social Participation (CASP), Parental Encouragement and Social Promotion (PESP), and Perceived Ease and Perceived Utility (PEPU) highlights the multidimensional nature of dietary guideline adherence among parents. These findings align with international literature that emphasizes the pivotal role of family and social environments in shaping dietary behaviors (Pérez-Rodrigo and Aranceta, 2001; Scaglioni et al., 2018). The high mean score for FSSP (4.20) reinforces the notion that family involvement and social support are crucial facilitators of dietary compliance, echoing results from studies in countries such as Australia and Canada, where family cohesion and shared meal practices were found to positively impact parents' adherence to national nutrition guidelines (Wyse et al., 2011; Wijayaratne et al., 2018). In contrast, the lower mean score for CASP (3.02) suggests a perceived inadequacy or limited engagement with community-level awareness efforts in Sri Lanka. This is consistent with previous local research, which found that although national dietary guidelines are accessible, their practical reach remains limited due to insufficient grassroots-level awareness programs and weak integration into everyday community health activities (Jayawardena et al., 2013). Compared to European settings, where community-driven interventions have seen higher engagement due to structured health promotion systems (World Health Organization, 2019), Sri Lanka's efforts may require more localized, participatory strategies to achieve similar success.

The statistically significant associations between demographic variables and the four latent factors also reflect international trends in understanding how sociodemographic contexts influence dietary behavior. For instance, the influence of education on FSSP and CASP mirrors global findings that individuals with lower educational levels often face barriers in interpreting and applying dietary recommendations (Parmenter, Waller and Wardle, 2000). Similarly, our findings regarding household income's significant impact on three out of the four factors support existing literature suggesting that economic constraints often limit access to healthy food options, influencing both perceptions of utility and actual dietary

adherence (Darmon and Drewnowski, 2008). Unique to the Sri Lankan context, however, is the influence of family type on FSSP, highlighting how extended family systems common in South Asian cultures can affect collective food decision-making and support structures. This aligns with findings from other South Asian countries, such as India and Bangladesh, where intergenerational households impact parental autonomy and dietary habits (Harris-Fry et al., 2017).

Finally, these results not only validate but also expand upon existing knowledge by demonstrating that while some barriers and facilitators are universal, others are culturally and contextually embedded. These nuances must be considered when designing effective, targeted nutrition interventions to enhance adherence to Food-Based Dietary Guidelines in Sri Lanka.

Moreover, the findings highlight several challenges in adopting Food-Based Dietary Guidelines (FBDGs) among parents in Sri Lanka. While family support and social participation (FSSP) are crucial in dietary compliance, community awareness and support programs (CASP) demonstrate lower effectiveness, indicating a gap in public health outreach. Additionally, demographic factors such as age, education level, and household income significantly influence parental perceptions, whereas gender and employment status do not have a notable impact. These findings underscore the need for targeted policy interventions to enhance the effectiveness of FBDGs at both household and community levels.

Ensuring parents understand and follow Food-Based Dietary Guidelines (FBDGs) in Sri Lanka comes with its fair share of challenges. Community awareness programs, though well-intended, seem to miss the mark, as reflected in the lower mean score for CASP (3.02). Community programs might not be engaging enough or may not fit well into people's daily lives and traditions. Another big challenge is the cost of healthy food. Many families struggle financially, often choosing cheaper, less nutritious meals. Education also plays a role; parents with higher education tend to follow dietary guidelines more efficiently, while those with less education may find them more challenging to understand or apply. Age matters, too. Older and younger parents see and react to dietary advice differently, so a single approach doesn’t work for everyone. While family support helps encourage healthy eating, broader community efforts haven’t been as effective in making a real difference.

To address these issues, dietary programs need to be improved. Younger parents may benefit from digital content, while older parents might find hands-on cooking workshops more useful. Financial help, such as food subsidies or support for local food production, could make healthy eating more affordable. Schools, workplaces, and healthcare centers should provide simple nutrition education for different learning levels. Families also play a key role in cooking, eating, and planning meals together can strengthen good habits better than any public health campaign. These steps can make a real impact when combined with well-organized community efforts. With practical solutions and wise policies, Sri Lanka can create a future where following FBDGs is not just a suggestion but a realistic and lasting way of life. Thus, the results revealed that though family support is still critical in ensuring compliance with a specific diet, community awareness programs may benefit from further refinement of their modality. Perceptible strategies directing the needs of age, educational, and income groups can enhance parental perceptions and application of FBDGs even more. The results show that family and community-based interventions can form another platform for presenting a healthier eating plan in different populations.

5. Conclusion

Extended families provide more assistance than nuclear ones in maintaining a healthy family through shared knowledge and attitudes. Parents generally implement moderate control over home food choices, but community awareness needs strengthening. The lack of accessible information on Food-Based Dietary Guidelines (FBDG) suggests more printed materials are needed to improve comprehension. Addressing these areas can promote healthier eating habits and enhance children's well-being in Sri Lanka.

Based on the findings of this research, it is clear that family support has contributed to parents' knowledge and adherence to the guidelines on diet in the Colombo district. Hence, extended families are very influential in developing the knowledge and beliefs that enhance the implementation of FBDG and promote a healthy diet. However, there is a lack of convenient and effective community awareness programs and easy access to information. The results further highlight the need to improve the design of interventions and provide better educational tools to promote food literacy and support healthier eating habits.

According to the General Linear Model (GLM) results, close connections between latent factors and demographic parameters were identified. Notably, age group and education level predetermine CASP, FSSP, and PESP. Income level also has a crucial influence on the perception that it is an economic determinant of the ability to follow dietary guidelines. Surprisingly, gender and employment status had no impact, but family type had the main effect on family support, stressing the need for large families.

This study's results further show that many community programs about healthy eating aren't connected well with parents. The lower scores for Community Awareness and Social Participation (CASP) suggest that these programs may need to be redesigned to better meet parents' needs. To be more effective, they should be simpler, easier to access, and tailored for different groups like younger parents, those with less education, or families with lower incomes. Using familiar places like schools, temples, churches, or community clinics to share practical, easy-to-understand messages could make a big difference. Creating spaces where parents can talk, learn together, and support one another could also encourage long-term healthy habits. The findings also show how important it is to boost food knowledge, or "food literacy," especially among families who face different challenges. Programs that match people's age, education, and income levels can help parents make healthier choices at home, especially when it comes to feeding their children. By focusing on family and community support, Sri Lanka has a real chance to build lasting, inclusive solutions that help everyone eat better and stay healthy in the long run.

In conclusion, while this study provides important insights into parental perceptions and adherence to Sri Lanka's Food-Based Dietary Guidelines, certain limitations should be considered when interpreting the findings. The cross-sectional design limits causal interpretations, and the voluntary participation of parents from the Colombo District may introduce selection bias and reduce the representativeness of the broader population. As Colombo is more urbanized and resource-rich than many other areas in Sri Lanka, the results may not fully reflect the experiences of parents in rural or estate sectors. Future studies across diverse settings are recommended to build a more comprehensive understanding and support wider applicability of the findings.

6. Acknowledgment

We sincerely appreciate the invaluable contributions of the nutrition experts and professionals who generously dedicated their time and expertise to validating the

survey questionnaire for this study. Their insightful feedback and prompt responses were instrumental in ensuring the survey's accuracy and completion within the required timeframe. We are truly grateful for their support and commitment.

References

Darmon, N. and Drewnowski, A. (2008), 'Does social class predict diet quality?', *American Journal of Clinical Nutrition*, 87(5), pp. 1107–1117. Available at: https://doi.org/10.1093/ajcn/87.5.1107.

Davis, L.L. (1992) 'Instrument review: Getting the most from a panel of experts', *Applied Nursing Research*, 5(4), pp. 194–197. Available at: https://doi.org/10.1016/S0897-1897(05)80008-4.

Department of Census and Statistics (2020) *Grama Niladhari Divisions Statistics*.

Department of Census and Statistics Sri Lanka (2012) 'Highlights: Census of Population and Housing 2012, Western Province'. Available at: http://www.statistics.gov.lk/pophousat/cph2011/index.php?fileName=Western&gp=Activities&tpl=3.

Harris-Fry, H., Shrestha, N., Costello, A., & Saville, N. M. (2017) 'Determinants of intra-household food allocation between adults in South Asia - A systematic review', *International Journal for Equity in Health*, 16(1), pp. 1–21. Available at: https://doi.org/10.1186/s12939-017-0603-1.

Hertzog, M.A. (2008) 'Considerations in Determining Sample Size for Pilot Studies', (January), pp. 488–495. Available at: https://doi.org/10.1002/nur.

J Jayawardena, R., Byrne, N. M., Soares, M. J., Katulanda, P., & Hills, A. P. (2013) 'Food consumption of Sri Lankan adults: An appraisal of serving characteristics', *Public Health Nutrition*, 16(4), pp. 653–658. Available at: https://doi.org/10.1017/S1368980012003011.

Ministry of Health Sri Lanka (2020) *Technical Review Report 2019-2020 Sri Lankan Food Based Dietary Guide Lines Evidence Review*.

Ministry of Health Sri Lanka (2021) *Food Based Dietary Guidelines for Sri Lankans*. Available at: file:///C:/Users/Deelaka/Downloads/FBDG-Practitioners-Handbook-

English.pdf.

Parmenter, K., Waller, J. and Wardle, J. (2000) 'Demographic variation in nutrition knowledge in England', *Health Education Research*, 15(2), pp. 163–174. Available at: https://doi.org/10.1093/her/15.2.163.

Pérez-Rodrigo, C. and Aranceta, J. (2001) 'School-based nutrition education: lessons learned and new perspectives', *Public Health Nutrition*, 4(1a), pp. 131–139. Available at: https://doi.org/10.1079/phn2000108.

Perry, E. A., Thomas, H., Samra, H. R., Edmonstone, S., Davidson, L., Faulkner, A., Petermann, L., Manafò, E., & Kirkpatrick, S. I. (2017) 'Identifying attributes of food literacy: A scoping review', *Public Health Nutrition*, 20(13), pp. 2406–2415. Available at: https://doi.org/10.1017/S1368980017001276.

Scaglioni, S., De Cosmi, V., Ciappolino, V., Parazzini, F., Brambilla, P., & Agostoni, C. (2018) 'Factors influencing children's eating behaviors', *Nutrients*, 10(6), pp. 1–17. Available at: https://doi.org/10.3390/nu10060706.

Vidgen, H.A. and Gallegos, D. (2014) 'Defining food literacy and its components', *Appetite*, 76, pp. 50–59. Available at: https://doi.org/10.1016/j.appet.2014.01.010.

Wijayaratne, S. P., Reid, M., Westberg, K., Worsley, A., & Mavondo, F. (2018) 'Food literacy, healthy eating barriers and household diet', *European Journal of Marketing*, 52(12), pp. 2449–2477. Available at: https://doi.org/10.1108/EJM-10-2017-0760.

World Health Organization, S.L. (2019) *Childhood malnutrition in Sri Lanka: a road map for the last mile*.

Wyse, R., Campbell, E., Nathan, N., & Wolfenden, L. (2011) 'Associations between characteristics of the home food environment and fruit and vegetable intake in preschool children: A cross-sectional study', *BMC Public Health*, 11(1), p. 938. Available at: https://doi.org/10.1186/1471-2458-11-938.

Yusoff, M.S.B. (2019a) 'ABC of Content Validation and Content Validity Index Calculation', *Education in Medicine Journal*, 11(2), pp. 49–54. Available at: https://doi.org/10.21315/eimj2019.11.2.6.

Yusoff, M.S.B. (2019b) 'ABC of Response Process Validation and Face Validity

Index Calculation', *Education in Medicine Journal*, 11(3), pp. 55–61. Available at: https://doi.org/10.21315/eimj2019.11.3.6.