

Feeding infants and toddlers in Japan: Continuity and cultural integration of expert advice in parenting magazines over time

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Abstract

Childhood obesity and unhealthy eating habits are a growing global concern. This study examined how feeding practices recommended by Japanese experts align with established feeding recommendations, including those commonly referenced in high-income Western countries. We also examined whether the nature of Japanese expert advice changed over time. Using expert advice regarding feeding and eating from two popular Japanese parenting magazines published in two time periods (2006/2007 and 2018/2019), we conducted a deductive qualitative analysis based on Vaughn et al.'s content map of fundamental feeding constructs and models of responsive feeding. The results showed that Japanese parenting magazines most closely aligned with the concepts of “Structure” and “Autonomy” from Vaughn et al.'s framework, as well as “Responsiveness to Child Cues,” across both time periods. These findings reflect key elements of Self-Determination Theory (SDT), which emphasizes the importance of supporting children's autonomy, competence, and relatedness in promoting healthy self-regulation. Japanese expert advice included culturally specific practices such as acceptance of *amae* and physical closeness (*skinship*), suggesting an integration of Western feeding constructs with culturally embedded caregiving values. While the core feeding principles remained largely unchanged, the findings offer insight into the continuity of Japanese parenting magazine advice on infant and toddler feeding.

Keywords : *parenting, eating, qualitative research methods, culture*

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Introduction

Childhood obesity is a worldwide public health problem, particularly in many high-income Western¹ (e.g., U.S., New Zealand, Australia, Canada) and Middle Eastern countries (e.g., Kuwait, Saudi Arabia, Qatar) (Hurley et al., 2011; Redsell et al., 2016). Healthy eating habits from the earliest years influence children's future food choices and, in turn, their long-lasting health and developmental consequences (Golan & Crow, 2004; Hurley et al.). Although rates are considerably lower in some high- or upper-middle-income East Asian countries (e.g., China, Japan, South Korea) (Goda & Masuyama, 2016), childhood obesity and unhealthy eating habits are a growing global concern. Even in countries such as Japan, where childhood obesity rates are much lower, continuous Westernization and the increasingly fast-paced life have also brought new challenges related to healthy eating habits (Goto et al., 2014). Although numerous studies have been conducted to examine the relationship between feeding practices and healthy eating habits for children in high-income Western countries (e.g., Redsell et al.), more research is needed to understand what experts believe to be the best feeding practices from a cross-cultural perspective (Pérez-Escamilla et al., 2021).

A recent consensus study report of U.S. National Academies of Sciences, Engineering, and Medicine (National Academies) (2020) examined consistency in infant and young child feeding recommendations in guidelines from Western countries—i.e., U.S., Australia, Canada, New Zealand, the United Kingdom, and several other European countries (Harrison & Dewey, 2020). Based on the synthesis of 43 research-based, guidelines from high-income countries, they offered recommendations in six areas: safety of foods and feeding practices,

¹ In this study, we use the term “Western” to refer to countries that share a historical and cultural foundation rooted in European influences, particularly in their public health and nutrition policies. This includes countries such as the U.S., Canada, the U.K., Australia, New Zealand, and several European nations, as they are commonly referenced in comparative cross-cultural research on parenting and feeding practices (National Academies of Sciences, Engineering, and Medicine (National Academics, 2020)). These guidelines informed the conceptual model developed by Vaughn et al. (2016), which we used as a framework for this research.

In addition, we define “high-income countries” based on the classification used in the National Academies (2020) report, which follows the World Bank’s fiscal year 2020 income classification (World Bank, 2019). The classification, based on Gross National Income (GNI), is widely used in economic and public health research. Following this framework, our study considers countries such as the U.S., Canada, the U.K., Australia, New Zealand, and several European nations as high-income countries.

introduction of complementary foods, food consistency & texture, meal frequency, hunger & satiety cues, and responsive feeding. The last three sets of recommendations focus on feeding practices that are related to the development of childhood obesity. These three recommendations are consistent with recommendations that come out of the responsive feeding literature and the concept model developed by Vaughn and colleagues (2016).

The importance of responsive feeding is acknowledged in current guidelines for feeding young children in many high-income Western countries. Researchers, primarily in Western countries, have developed recommendations suggested that responsive feeding practices are protective against the development of childhood obesity (Fewtrell et al., 2017; Hurley et al., 2011; Redsell et al., 2016). Responsive feeding practices reflect the principles of responsive parenting, which values reciprocity between child and caregivers. Black and Aboud (2011) explained caregivers' responsive feeding as "ensuring that the feeding context is pleasant with few distractions," offering food "on a predictable schedule so child is likely to be hungry," "encouraging and attending to the child's cues of hunger and satiety," and "responding to the child in a prompt, emotionally supportive, contingent, and developmentally appropriate manner" (p. 491). In contrast, nonresponsive feeding is described as caregiver controlling and dominating the feeding situation, letting the child control the situation (indulgence), and ignoring the child (uninvolved) (Black & Aboud).

Based on an extensive review of the research literature, Vaughn et al. (2016) developed a concept model that describes the wide range of feeding practices, including terminology and definitions that aligned with the National Academies' recommendations. They identified three overarching constructs of food parenting practices: coercive control, structure, and autonomy support/promotion. All three constructs can be understood within the framework of Self-Determination Theory (SDT; Ryan & Deci, 2000), which posits that satisfying three basic psychological needs—autonomy, competence, and relatedness—is essential for healthy development and self-regulation. From an SDT perspective, feeding practices that support a child's autonomy and provide consistent, emotionally attuned structure promote internal motivation for healthy eating, while coercive or controlling strategies threaten the need for autonomy and may undermine this motivation (Grolnick & Pomerantz, 2009). While parents play a central role in determining which foods are offered, children's preferences and self-

regulatory abilities influence what they actually consume, how much they eat, and the foods they request (Birch & Fisher, 1998).

Over the past two decades, research examining the association between children's dietary intake and food parenting practices has supported the importance of structure and autonomy support (Yee et al., 2017). A systematic review and meta-analysis by Yee et al. (2017) found that healthy eating in preschool and school-aged children is positively associated with structural practices such as availability and accessibility of healthy foods, autonomy-supportive strategies like modeling and praise, and active parental involvement. In contrast, coercive practices, such as pressure to eat and using food as a reward, are linked to unhealthy dietary. These results reinforce Vaughn et al.'s (2016) conclusion that structure and autonomy support are positively associated with healthy eating, whereas coercive control shows a negative association. Given the central role of these constructs in informing responsive feeding practices, it is important to examine how they apply across cultural contexts.

Japan was selected as the focus of this study because it offers a unique context for exploring the cultural adaptability of Western-developed frameworks like Vaughn et al. (2016). As a high-income country with traditionally low childhood obesity rates, Japan contrasts with many Western nations in both health outcomes and parenting values (Goda & Masuyama, 2016; Rothbaum et al., 2000a). At the same time, rising concerns about feeding challenges and parenting stress among Japanese mothers suggest that global health guidelines may increasingly intersect with local practices (Shiroki, 2012). Investigating expert advice in this setting provides insight into how universal feeding constructs are interpreted and adapted within a culturally distinct environment.

While Japan has historically been influenced by Western nutrition science, its parenting philosophies, particularly the emphasis on *amae* and indirect, child-centered feeding approaches (Porter, 2008), shape how expert recommendations are applied in everyday caregiving. However, the National Academies' synthesis only included guidelines written in English, thus limiting the scope primarily to Western contexts. The question remains whether similar recommendations would be offered in East Asian high-income countries, where childhood obesity rates remain relatively low but are gradually increasing. By examining

how Japanese expert advice aligns with established feeding frameworks from Western countries, this study contributes a culturally informed perspective to the global discussion. In doing so, it offers insight into both the universality and cultural specificity of responsive feeding practices, as well as the adaptability of public health recommendations in non-Western settings.

The goal of this research was to determine how feeding practices recommended by Japanese experts aligned with feeding recommendations in high-income Western countries.

Japanese Parenting Styles

Previous research suggests that expert advice might be different in collectivist, East Asian countries, including Japan (Rothbaum et al., 2000b). In contrast to Western cultures that are often characterized as supporting individualism and autonomy, East Asian cultures generally adhere to collectivism, which values interdependency, especially between mother and child (Markus & Kitayama, 1991). The Japanese emphasis on close relationships is often explained with reference to the indigenous concept, *amae* (Rothbaum et al.), which should be distinguished from the Western concept of attachment. Attachment security is described by U.S. experts as important because it facilitates the development of autonomous behavior, whereas Japanese experts focus more on the mother and child remaining in a near-constant union, such as through *skinship* (a Japanese term referring to physical skin-to-skin contact) (Rothbaum et al.). This proximal mother-child contact is considered foundational for children's willingness to behave according to others' expectations (Rothbaum et al., 2000a).

Many scholars agree that the Japanese parenting style for young children tends to be predominantly child-centered, prioritizing children's desires or needs over adults' (Porter & Tanabe, 2023). However, since World War II, Western-influenced theories and pedagogy supporting young children's expressions of emerging autonomy have begun to play a role. Japanese mothers' current support of children's autonomy needs goes hand-in-hand with their acceptance of infants' and young children's needs for closeness to their mothers.

Japanese Mothers' Food-Related Parenting Concerns

Surveys conducted during the past decade show that over a third of Japanese mothers of very young children worry about various aspects of food preparation and their children's eating preferences (Ministry of Health, Labor and Welfare (MHLW), 2015; Shiroki, 2012). Examples of mother's concerns included “the amount of milk,” “the burden of feeding,” “playing with food,” “picky eating,” and “taking too much time to eat.” Difficulties preparing baby food were a specific concern of one-third of parent respondents (MHLW, 2015). Another study of Japanese mothers of preschool children indicated that 35.7% expressed that “they do not have much knowledge or skills in preparing meals” (Shiroki, 2012).

Government Initiatives Encouraging Healthful Food Habits

In 2003 the Japanese government started several food education initiatives. One was the 2005 *Shokuiku* (Food and Nutrition Education) Campaign, initiated by the Ministry of Agriculture, Forestry and Fisheries as a joint effort with the MHLW and the Ministry of Education, Culture, Sports and Technology. The purpose of these initiatives was to counteract increases in unbalanced nutrition, irregular mealtimes, food safety problems, and over-dependence on food supplies from outside the country (Mah, 2010). The *Shokuiku* Campaign has specifically focused on providing early interventions at home and school, considering the impact of food on children's physical and emotional health and character development. Despite these government's efforts, however, according to a brief report by the MHLW (2015), the percentage of mothers who worry about their children's feeding and eating has not changed much compared to 10 years ago.

The Current Study

The first purpose of this study was to determine how Japanese feeding practices recommended by Japanese experts are consistent with the Vaughn et al. (2016) and responsive feeding (Black & Aboud, 2011) models. To obtain the feeding recommendations by Japanese experts, we used parenting magazines. Although increasing numbers of mothers

are turning to the internet for parenting advice and support (Yamazaki et al., 2018), a survey conducted in Japan indicates that about 65% of mothers of infants and toddlers still look for parenting advice and resources in magazines (Benesse Educational Research and Development Institute, 2016). Because there has been a concern regarding levels of digital literacy among parents (Farrell, 2018), we believe that examination of parenting magazines will provide solid and reliable data as they include the identity of each expert (e.g., name, occupation).

The second purpose was to examine whether the nature of Japanese expert advice changed over time. We collected the data from two time periods to investigate longitudinal trends in expert advice to parents in the domain of feeding and eating through contemporary Japanese parenting magazines in older (2006/2007) and newer (2018/2019) issues of these magazines. These periods were selected in relation to the launch of Japan's national food and nutrition education campaign, *Shokuiku*, which began in 2005. The earlier period (2006/2007) represents the early years of the campaign, providing insight into the initial influence of the government's policy efforts on parenting discourse. The later period (2018/2019) was chosen to examine whether, after more than a decade of sustained public messaging, the expert advice showed signs of alignment with the long-term goals of the initiative. While no single symbolic event marks this interval, our aim was to assess whether public health efforts over time contributed to gradual changes in expert advice presented in widely read parenting magazines. Because parenting expert advice is likely to reflect the parenting ideologies of a particular socio-historical context in addition to the culture and customs of each country (Tsuneyoshi & Boocock, 1997), we believe that comparing the advice between these two time periods, near the beginning of the government's nutrition education efforts and 12 years later, will contribute to the understanding of stability and change in parenting advice.

Method

Sample

Two popular parenting magazines with long publication records in Japan were selected,

Baby-Mo (Baby and Mother) and *Hiyoko Kurabu* (Chick Club). *Zasshi Shinbun Soukatarogue* (Japan's Periodical in Print) describes these magazines as providing advice to parents of infants and toddlers and as targeting a general audience. Issues of the two magazines published in two historical time periods: older (2006/2007) and newer (2018/2019) were included in the sample. Because *Baby-Mo* is published quarterly while *Hiyoko Kurabu* is published monthly, we decided to include four magazine issues (spring, summer, fall, winter) from each magazine based on availability for purchase or copy from libraries (for a total of 32 issues).

Our unit of analysis was an article in its entirety. To be included in the study, an article had to provide an expert's advice addressing parental concerns for infants and toddlers and focus on feeding or eating. All articles in the sample were written for lay audiences by editorial teams who had consulted with professionals (e.g., pediatricians, nutritionists). Articles that were written by non-experts, such as bloggers and celebrities, were not included. Twenty-three articles from 2006 and 2007 and 18 articles from 2018 and 2019 fit these criteria and were included in our final sample.

Data Analysis Techniques

In the current study, we conducted a deductive qualitative analysis using an organizing framework to direct data analysis (Saunders et al., 2009). The predetermined categories ($n = 4$) and subcategories ($n = 21$) were developed from a content map of fundamental feeding constructs categories ($n = 19$) from Vaughn et al. (2016) (Table 1). We also used characteristics of responsive feeding ($n = 7$) (Black & Aboud, 2011). Both of them are consistent with National Academies' recommendations on feeding infants and young children (Harrison & Dewey, 2020) (Table 1). Most of the characteristics of responsive feeding (Black & Aboud) correspond with the content map from Vaughn et al. (2016). The 21 codes in the Vaughn et al. column in Table 1 are the codes that were used in the current study. In addition, "Responsiveness to Child Cues" and "Nurturant Behaviors" were included in this column. A category "Responsiveness to Child Cues" was added in this study based on the constructs from National Academies' Recommendations. A subcategory "Nurturant

Behaviors” was included based on the review of Japanese parenting studies. Recommendations following this subcategory include fostering close relationships with children via physical contact and responding to children’s feelings and *amae*.

Table 1. *Predetermined Categories and Subcategories Developed from a Content Map of Fundamental Feeding Constructs (Vaughn et al., 2016) and Characteristics of Responsive Feeding (Black & Aboud, 2011)*

National Academies’ Recommendations on Feeding Infants and Young Children (Harrison & Dewey, 2020)		Characteristics of Responsive Feeding (Black & Aboud, 2011, p. 491)	Content Map of Fundamental Feeding Constructs (plus added categories) (Vaughn et al., 2016)
Responsive feeding	• create a pleasant feeding environment with nurturing behaviors • repeated exposure to promote acceptance of new foods • encouragement of self-feeding and the self-regulation of feeding	• “responding to the child in a prompt, emotionally supportive, contingent, and developmentally appropriate manner”	<i>Autonomy Support</i> Child involvement Encouragement Praise Reasoning Negotiation Nutrition education Nurturant behaviors ^a
Meal frequency	• provide a consistent meal schedule • provide several eating occasions, both meals and snacks, over the course of the day	• offering food “on a predictable schedule so child is likely to be hungry”	<i>Structure</i> Rules and limits Guided choices Monitoring Meal and snack routines Modeling Food availability Food accessibility Food preparation Unstructured practices (i.e., lack of structure)
Hunger and satiety cues	• use hunger and satiety cues to guide infant and child feeding	• “encouraging and attending to the child’s cues of hunger and satiety”	Responsiveness to child cues ^b
Nonresponsive feeding	(In these recommendations, practices in this category fall under lack of responsiveness to hunger and satiety cues—e.g., pressure to eat)	• Control • Pressuring • Indulgence • Uninvolved feeding	<i>Coercive Control</i> Restriction Pressure to eat Threats and bribes Using food to control negative emotions

a. A subcategory “Nurturant Behaviors” was included based on the review of Japanese parenting studies. b. Coding category added to the Vaughn et al. (2016) in this study to include constructs from the National Academies’ Recommendations. The 21 categories in this column were coded for the present study.

In the first stage of analysis, the first author who is bilingual in Japanese and English translated all subcategories and trained the fourth author who is a Japanese native speaker through going over the subcategories with examples. Then, the first and the fourth authors read through the first 12 articles several times and indicated for each article which subcategories they addressed. After this first coding between the two authors, interrater reliability was calculated using Cohen's kappa. Among the 22 subcategories, seven did not reach the substantial agreement (< 0.61). These subcategories with discrepancies were discussed until agreement was reached. In addition, the third author, an expert in parental feeding, provided feedback on coding these discrepancies. Then, the first and the fourth author coded additional 12 articles, only for the subcategories with discrepancies to compare the reliability. This time, all of the coding reached substantial agreement ($0.63\sim 1.00$). Finally, the first author coded the rest of the articles ($n = 17$) independently. Articles that covered information that fit into more than one category were coded into multiple themes.

To compare the expert advice offered in the 2006/2007 and 2018/2019 magazine issues, we first conducted descriptive analyses based on the frequencies and percentages of each category and subcategory. The percentages of the articles were calculated in relation to the total number of feeding/eating articles (2006/2007: $n = 23$, 2018/2019: $n = 18$). For example, there were a total of 23 feeding/eating articles in the 2006/2007 sample. Thirteen articles included expert advice related to "rules and limits." Therefore, the percentage of this subcategory was $13/23 * 100 = 56.5$. Finally, a Pearson's chi-square test or a Fisher's exact test (if the cells had an expected count of less than five) was used to test the group differences in each category and subcategory. The statistical analyses were performed using IBM SPSS Statistics 26.

Results

The frequencies and percentages of the articles reflecting each category and subcategory in 2006/2007 and 2018/2019 are indicated in Table 2. We only included subcategories that contain at least one piece of advice. Sample quotes illustrate the contents of each subcategory.

The most frequent advice for the newer articles was Autonomy Support (94.4%) while the most frequent advice for the older articles were Responsiveness to Child Cues (82.6%) and Structure (82.6%). Structure and Responsiveness to Child Cues were also frequently found in the newer articles (88.9%, 66.7%, subsequently), while Autonomy Support was found in 69.6% of the older articles. We did not find any advice that could be included in Coercive Control. Below we describe the findings in relation to each of the two research questions.

Table 2. *Categories and Subcategories in Older (2006/2007) and Newer (2018/2019) Articles in the Feeding and Eating Domain with Frequencies, Percentages and Illustrative Quotes*

Category	Subcategory	Example	Old (n = 23)		New (n = 18)	
			n	%	n	%
Autonomy Support			16	69.6	17	94.4
	Child involvement	“It is important to stimulate children’s interest in food through such as growing vegetables on the porch together or letting them involved in cooking” (H, 2018, 8, p.134).	0	0.0	2	11.1
	Encouragement	“Children start showing interest in food by kneading, dropping, and throwing it! Although it is difficult for moms, you should nurture their willingness to eat by themselves.” (B8, Su/Fa, p.67); Push the juice box at the timing when the baby sucks and let him feel that ‘I did it by myself.’” (B, 2019, p.42).	13	56.5	8	44.4
	Praise	“When you praise them, they will want to eat it again. Eventually, the child will want to eat the food by stabbing or scooping it by himself” (B, 2018, Sp/Su, p. 135).	0	0.0	3	16.7
	Nurturant behaviors	“Nurse babies as long as they want in order to provide emotional security and also promote <i>skinship</i> .” (H8,5, p.48); Many babies want to be breast-fed because they want to “ <i>amaeru</i> .” If so, don’t worry about when they should be weaned.” (H, 2006, p. 31).	8	34.8	9	50.0
Structure			19	82.6	16	88.9
	Rules and limits	“Give foods to him at a slow pace...Ask him ‘What sounds do you hear when you eat? Can you show me your mouth?’ and so on, and if the food is gone, give the next one.” (H, 2007, 9, p.31).	13	56.5	7	38.9
	Monitoring	“If the nipple hole is too large or the bottle lid is too loose, milk will come out too easily and will not stimulate the baby. If the baby is happy and gaining weight steadily,	8	34.8	4	22.2

		it is safe to assume that there is no problem (in terms of breastfeeding volume)"(B, 2006, 8, p.81).				
	Meal and snack routines	"By the time that children turn one, you should try to schedule breakfast, lunch, and dinner on schedule in order to build a daily routine." (B, 2019, Fa/Wi, p.61). "Create an environment in which children can enjoy mealtime while having a conversation with their family" (H, 2018, 8, p.134)	15	65.2	12	66.7
	Modeling	"It is a good idea for mothers to eat with their children and show them how to munch. When an adult is eating as if meals were delicious, the child will imitate the adult and start reaching foods" (H, 2007, 9, p.31).	5	21.7	3	16.7
	Food preparation	"We recommend that you start with your baby's favorite boiled vegetables. The length of the vegetable should be slightly longer than the baby's hand when it is grasped, so that the baby can bite off the vegetable with the front teeth and crush it with the gums at the back" (H, 2018, 5, p.149)	13	56.5	9	50.0
	Responsiveness to child cues	"Feed at your baby's pace and give as soon as he/she wants (H, 2007, 8, p.231)"; "There is no need to force them to eat something they don't like. Nourish them with other foods" (H, 2019, 1, p.31).	19	82.6	12	66.7

Notes. We only included categories and subcategories that were found one or more times in the articles. All of the examples were translated by the first author who is fluent in English and Japanese. Under each example, the name and page number were included in parenthesis. Under each example, the name, year, month or season, and page number were included in parenthesis. H = Hiyoko Kurabu, B = Baby-Mo, Sp = Spring, Su = Summer, Fa = Fall, Wi = Winter.

Autonomy Support

This category refers to supporting the children's volition, self-regulation, and independence (Vaughn et al., 2016). It contained seven subcategories - "Child Involvement," "Encouragement," "Praise," "Reasoning," "Negotiation," "Nutrition Education," and "Nurturant Behaviors." We did not find any advice for the subcategories - "Reasoning," "Negotiation," and "Nutrition Education."

Child Involvement

This subcategory was only included in the newer articles ($n = 2$). The experts suggested

that parents can encourage children to participate in gardening or meal preparation, which, in turn, stimulates their children's interest in food and eating.

Encouragement

This advice was found in about half of the articles (older: 56.5%, newer: 44.4%). The experts from the older and newer articles advised mothers to encourage children through supporting their self-initiating and autonomous eating behavior. First, they advised parents to acknowledge signs of children's willingness to try, such as grabbing food. Secondly, the experts advised parents to acknowledge children's curiosity and interest in eating or in eating devices. Thirdly, the experts suggested that parents should provide opportunities for their children to practice independent eating, such as giving them finger foods. Lastly, experts mentioned the importance of offering minimum support (scaffolding) so that children feel like they can accomplish things by themselves. Such advice pertained especially to instances when children learn new skills, such as drinking from a cup.

Praise

This subcategory was only included in the newer articles ($n = 3$). The experts encouraged parents to praise their children even when they make small progress (e.g., "if they can take even one bite"; "even if they can use a spoon a little bit" (B, 2018, Sp/Su, p.134; H, 2018, 8, p.134) 2).

Nurturant Behaviors

Advice to promote child's nurturant behaviors during feeding emerged in about 35% of the older articles and 50% of the newer articles. The experts mentioned that physical contact has various benefits, as a function of emotional nutrition and promotion of a close relationship between mother and child. In particular, reference to the importance of "skinship" was mentioned in nine articles. They also explained that holding babies not only provides safety for their children, but also plays a role as a means of dealing with children's distress

² Under each example, the name, year, month or season, and page number were included in parenthesis. H = Hiyoko Kurabu, B = Baby-Mo, Sp = Spring, Su = Summer, Fa = Fall, Wi = Winter.

(e.g., wanting more milk). Furthermore, the experts encouraged parents to acknowledge and accept children's feelings of *amae*, which is the desire to be loved and cared for during fee

Structure

Structure is a type of parental control, but is different from coercive control, which attempts to dominate or impose the parents' will over children (Vaughn et al., 2016). Structure involves practices of rules/limits, monitoring, and organization of children's food environment. This category contained nine subcategories – "Rules and Limits," "Guided Choices," "Monitoring," "Meal and Snack Routines," "Modeling," "Food Availability," "Food Accessibility," "Food Preparation, and "Unstructured Practice." We did not find any advice for "Guided Choices," "Food Availability," "Food Accessibility," and "Unstructured Practice."

Rules and Limits

Advice to set clear limits and exercise control, based on parents' expectations and goals, was found in more than half of the older articles and one third of the newer articles. Such advice was intended to keep healthy eating habits and reduce parents' struggles related to children's behavior, such as playing with food or not sitting through mealtimes and wanting to drink milk instead of eating food. This category also contained advice for regulating snacks or sweet drinks (e.g., "As much as possible, do not feed them adult-oriented snacks that are high in sugar and fat, like chocolate, and contain caffeine, which is a stimulant." (B, 2019, Sp/Su, p.139)).

Monitoring

This was found in more than one third of the older articles and one fifth of the newer articles. The experts advised parents to keep track of children's feeding and eating by monitoring frequency, amount, and schedule. In particular, some experts suggested that parents should check their children's health frequently, such as urine, weight, and facial color.

Meal and Snack Routine

Among “Structure,” the subcategory “Meal and snack routine” was found most frequently – in more than 65% of the older and newer articles. The experts advised parents to create structure by keeping a consistent daily routine from morning till bedtime and regulating their feeding and eating schedule ($n = 19$). The advice from experts also addressed the importance of creating an atmosphere that makes mealtime enjoyable and pleasant ($n = 9$). In fact, the phrases “Enjoy the meal” or “Fun mealtime” were used in seven of those articles. The experts further advised parents to remove distractions so that children can concentrate on tasks through practices such as turning off the T.V. or smartphone ($n = 7$). Finally, eating together with mothers and other family members (*kyoshoku*) was advised ($n = 4$), which, in turn, helps children drink or eat more without much direct intervention by the adult.

Modeling

The experts advised mothers to be good role models and demonstrate how to drink (e.g., using a straw) and eat (e.g., chewing foods, avoiding picky eating) (older: 21.7%; newer: 16.7%). The focus of the advice was the development of healthful eating habits from the earliest years. Out of eight articles, five of them mentioned that adults should demonstrate eating as if meals were “delicious.”

Food Preparation

This refers to the methods that parents can use for preparing their children’s meal, which was found in more than a half of the articles (older: 56.5%; newer: 50.0%). They encouraged parents to make it easy for children to eat and cater to their specific developmental stages. The comments from the experts also addressed popular eating concerns (e.g., picky eating, self-feeding) suggesting various strategies, including ways to cook and prepare menus (“You can add a little breast milk or formula to the porridge to give it a familiar taste” (B, 2018, Su/Fa, p.60)).

Responsiveness to Child’s Cues

This category contains expert advice to be responsive to the child’s cue and signaling that

he or she wants to eat/ drink more or wants to stop eating/drinking during the course of the feeding session. In this category many of the expert advice is about (1) parents should go along with children's natural rhythms or pace, following the child's lead regarding nursing, bottle feeding or eating ($n = 13$); (2) parents should let children drink or eat the amount of milk or foods they want ($n = 8$); and (3) parents should not force children to eat foods that they dislike ($n = 5$).

Stability and Change in Advice Between 2006/2007 and 2018/2009

Chi-Square or Fisher's Exact tests showed that the differences between the older and the newer articles did not reach statistical significance.

Discussion

Alignment with Western Responsive Feeding Models

The present study examined expert advice to parents in the area of feeding and eating in Japanese parenting magazines published in 2006-2007 and 2018-2019. The first purpose of this study was to determine whether Japanese feeding practices recommended by Japanese experts are consistent with the Vaughn et al. (2016) and responsive feeding (Black & Aboud, 2011) models. The second purpose was to examine whether the nature of Japanese expert advice changed over time. Overall, the results showed that Japanese parenting magazines on feeding practices mostly closely aligned with the advice of "Structure" and "Autonomy" by Vaughn et al. and "Responsiveness to Child Cues." In addition, there were no significant changes in expert advice over time despite some governmental efforts in supporting the promotion of healthful eating habits.

In our study, we found close to equal frequencies for both "Structure" and "Responsiveness to Child's Cues" in Japanese expert feeding advice. This indicated that advice of Japanese experts is similar to the feeding practice of authoritative parenting in the West that values

both demandingness and responsiveness (Vaughn et al., 2016). Authoritative parents are more likely than authoritarian parents to use modeling and monitoring in their feeding practices while less likely to pressure children to eat and drink (Hubbs-Tait et al., 2008; Power et al., 2021). The evidence from the research conducted in the West suggests that the authoritative parenting style is associated with low child obesity risk (Power et al.).

It is noteworthy that recommendations for supporting children's emerging autonomy are found in about 70% of the older and 90% of the newer articles in our study. Many Japanese experts stressed the importance of supporting a child's autonomy for infants and toddlers, especially through “Encouragement” and “Nurturant Behaviors.” As for “Encouragement,” the experts suggested parents should encourage signs of children’s interest in eating and offer minimal support and verbal prompts. This strategy, explained as “scaffolding”, helps children master new feeding skills and become more independent eaters and is also found in recommended feeding practices in the West (Vaughn et al., 2016).

These findings are also consistent with SDT, which suggests that autonomy-supportive environments foster intrinsic motivation and well-being (Deci & Ryan, 2000). Japanese experts’ emphasis on encouragement, nurturant behaviors, and responsiveness to child cues may support young children’s developing sense of agency in the feeding context, while also fulfilling the psychological need for relatedness through physical closeness and acceptance of *amae*. Such practices may contribute to the development of healthy, self-regulated eating behaviors in early childhood.

Cultural Distinctions in Japanese Expert Advice

Japanese experts’ advice related to promotion of “Nurturant Behaviors” during feeding is in line with past research on Japanese parenting (Rothbaum et al., 2000a). Practices such as *skinship* and the acceptance of *amae*, which reflect physical closeness and the child’s desire to be cared for, emerged frequently in expert advice and distinguish Japanese feeding practices from those typically seen in Western contexts. For example, maternal physical affection through *skinship* has been linked to reduced behavioral problems in young children, such as aggression and hostility (Katsurada, 2012). While Western parenting also values

physical closeness (Tsuneyoshi & Boocock, 1997), Japanese experts appear to frame it more explicitly as a mechanism for both emotional nourishment and behavioral regulation, particularly in response to children's distress.

More than four-fifths of expert advice was related to the "Structure" category, which includes subcategories of "Rules and Limits," "Monitoring," "Meal and Snack Routines," "Modeling," and "Food Preparation." The subcategories under the "Structure" are consistent with the Japanese government's vision for feeding practices, which is "having healthy rhythms so they feel hungry," "having someone whom they like to eat together with," and "having more and more favorite foods and wanting to eat more" (Tsutsumi, 2019). Another connection with the government initiatives is the advice regarding "Food Preparation." The experts provided various strategies for meal preparation to address the challenges of modern Japanese mothers of young children who expressed concerns about their children's feeding- and eating-problem behaviors and not having enough knowledge or skill in preparing meals (MHLW, 2019).

It is worth noting Japanese experts' emphasis on the importance of creating an atmosphere that makes mealtime enjoyable and pleasant when structuring the environment for meals and snacks. In particular, Japanese experts often recommended the strategy of modeling appropriate behavior to teach children positive dispositions, such as enjoyment, during mealtime. Fostering a disposition of enjoyment is often cited as an important learning objective in Japanese early childhood and primary education (Isaacs et al., 2015; Ministry of Education, Culture, Sports, Science, and Technology-Japan, 2017). Future investigations should be conducted to examine if feeding experts in the West also value fostering children's positive dispositions toward eating, such as enjoyment.

In our study, we found frequent advice about not interrupting a child's innate rhythms and preferences and keeping pace with each child's development ("Responsiveness to Child Cues"). Although feeding practices that value reciprocity between caregiver and child may be equally important in many countries, there are cultural variations in terms of parental responsiveness (Black & Aboud, 2011). In the case of Japanese parenting, accepting children's needs for *amaeru* with their mother and promptly responding to their wishes may be the way to socialize them to adopt ways of culturally desired feeding practices.

None of the feeding-related Japanese experts' advice was included in the category of Coercive Control. The fact that this parent-centered controlling approach did not emerge may be explained by the Japanese parenting and teaching characteristics of *Child-Centeredness* (Nakamichi et al., 2022; Porter & Tanabe, 2023). Japanese caregivers are encouraged to refrain from directly intervening with their children's behavior until the children solve their problems on their own.

In the category of “Structure” and “Autonomy Support,” the following subcategories were not found in our analysis – “Guided Choices,” “Food Availability,” “Food Accessibility,” “Reasoning,” “Negotiation,” and “Nutrition Education.” A possible reason for the lack of these recommendations is the target readerships of our parenting magazines being as parents of infants and toddlers. For example, parents may not tell their infants and toddlers about foods’ nutritional qualities (“Nutrition Education”) and use logical explanations about the benefits of healthy eating habits (“Reasoning”). Another possible reason is the difference in parenting styles between Japan and high-income Western countries, such as the U.S. According to Rothbaum et al.'s model (2000a) of development as generative tension (U.S.) versus symbiotic harmony (Japan), U.S. parents support children’s conflict negotiation (“Negotiation”) and choice making (“Guided Choices”), while Japanese parents foster proximal and dependent relationships with their children (“Nurturant Behaviors”). Promotion of closeness is a key to successful feeding practices without confrontations or contests of child will in Japan.

Stability of Advice Across Time and Policy Implications

We found that expert advice did not change over the last 12 years. Consequently, no changes could be attributed to the Japanese governmental campaign promoting healthy and nutritious food education. Compared to the findings by Hoffman (2009), the advice in parenting magazines was relatively stable, not swiftly changed by social and political movements. Collecting data from parenting magazines before the *Shokuiku* initiatives and other social-political milestones related to health and nutrition would extend the findings from our research.

Limitations and Future Directions

Several limitations of the present study suggest additional directions for future research. First, our sample size was relatively small. This was because many parenting magazines have been discontinued over the last decade. In the future, it would be beneficial to collect a sample of parenting magazines from different periods over the past years to examine if eating and feeding advice from experts has been influenced by governmental and social policies related to healthy eating. Second, editors sometimes use the same experts repeatedly. In the current analyses, for example, one expert's name was included in the total of six different articles in *Hiyoko Kurabu* and *Baby-mo*. Although this was a rare case, her opinion may be over-represented in our analysis. Nevertheless, her message was *repeatedly delivered to influence the perspectives of the readers of these magazines*. Thirdly, this study focuses on feeding recommendations rather than specific dietary choices. Unlike Western contexts, where processed and convenience foods are more common, Japanese recommendations continue to prioritize balanced, home-cooked meals with rice, vegetables, and seafood. While our findings highlight how Japanese experts integrate and adapt Western feeding frameworks, they do not examine the actual foods consumed by children. Future research could explore how feeding guidance influences real-world dietary habits, particularly in relation to public health initiatives and cultural food preferences in Japan and Western countries.

Notwithstanding these considerations, the current study found that Japanese experts' feeding infant and toddler recommendations are similar to those emerged from the responsive feeding literature and the concept model developed by Vaughn and colleagues (2016). Yet, this study showed some cultural variations in feeding recommendations, such as desirable feeding practices being cultivated by indirect, child-centered approach, accepting child's needs for *amae* and valuing a close relationship between child and mother in Japan. Japanese expert advice demonstrates a distinctive integration of Western feeding frameworks with culturally embedded caregiving principles. While the emphasis on structure and responsiveness aligns with authoritative feeding styles seen in Western recommendations, Japanese experts stress relational aspects of feeding, particularly the importance of emotional connection through physical closeness (*skinship*) and the acceptance of *amae*. Rather than a

direct adoption, this represents an intentional adaptation of global recommendations within Japan's caregiving philosophy. In addition, this study provides an important window into stability and change in Japanese parenting magazine advice regarding infant-toddler feeding and eating during a significant time period shortly after the enactment of the 2005 government directives and 12 years afterwards. As such, the findings reflect the ways in which cultural practices may not interact with political and situational realities.

Integrating insights from SDT with responsive feeding models highlights the importance of promoting not only structured routines but also autonomy and emotional connectedness in feeding interactions. Public health messages that consider these psychological needs-and how they are expressed in different cultural contexts-may be more effective in fostering lasting healthy eating habits in young children.

These findings have important implications for addressing the global challenges of childhood obesity and unhealthy eating habits. Although Japanese experts may not explicitly frame their guidance in terms of obesity prevention, likely due to Japan's relatively low childhood obesity rates, their consistent emphasis on responsive feeding, structured routines, and support for children's autonomy closely aligns with international recommendations for fostering healthy eating behaviors from an early age. The Japanese approach, particularly its integration of nurturant, child-centered strategies such as *skinship* and the acceptance of *amae*, may offer a culturally grounded model for promoting positive feeding practices without relying on coercive methods. These insights can inform global public health efforts by underscoring the value of culturally responsive approaches to feeding guidance that support long-term health outcomes.

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