

Are there Picky Preschool Eaters in Japan?

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Abstract

Background: Picky eating or refusing certain foods (or food groups) and/or having strong likes and dislikes around food is common among preschool children in the United States. Japanese children under 5 years of age may have minimal amounts of picky eating due to the Japanese preschool programs that emphasize shared eating.

Methods: In this study, we visited 8 *hoikuen* and *yochiens* (kindergardens) in Tokyo and Chiba prefectures. Interviews were conducted with managers, teachers and dietitians and observations were made of meal and snack times.

Results: Japanese preschool/nursery meal times are structured and follow a specific format of thanks, group seating and multiple plates/bowls of food, none of which are finger foods. Conclusion: We conclude that the frequency of picky eating in the United States may be a culture bound syndrome, or a behavior/syndrome specific to American and Western cultural norms.

Plain English Summary

Picky eating is viewed as a normal part of growing up in the United States. Many American toddlers and young children refuse certain foods or groups of foods. Picky eating is much less of a problem in Japan and in many Japanese preschools, children must follow certain mealtime rituals and eat food provided by the school. In this study, we observed eating and meal practices at 8 preschools in the Tokyo and Chiba areas of Japan and conducted interviews with teachers and other administrators at the school. We found that there were many rules surrounding eating and mealtime in the Japanese contexts and parents were not allowed to change these practices or provide different foods/beverages for their children.

Background

Picky-eater is a term that indicates consuming a limited number of different types of food, having strong food likes and dislikes and restricting the intake of new foods or certain food groups (Jacobi et al., 2008). Studies with children in North American have found that up to 50% of children are picky eaters under 24 months of age (Carruth et al., 2004). Indeed, a recent article in the American Family Physician journal indicates that food neophobia is a normal stage of development for children (Nasir and Nasir, 2015).

Picky eating is not limited to North America. Countries in East Asia including Taiwan and China have reported a high prevalence of picky eating in preschool children, up to approximately 50% (Xue et al., 2015). Meanwhile studies on growth in picky eater preschool children find that picky eaters tend to have lower weight and height for age percentiles. Although picky eating is common, it may not necessarily always be benign, as there can be associated health concerns (Xue et al., 2015). In part, growth can be impacted, because picky eaters often eat foods with that have more added sugars and those with a high carbohydrate content. It is argued that picky eating is heavily influenced by environmental factors (e.g.

parent behaviors such as limited food choice or restriction of certain foods or promise of a reward), which can result in picky eating behaviors (Birch and Davison, 2001).

Japan has a lower prevalence of obesity than the rest of East Asia and Asia in general (Wang and Lobstein, 2006). We sought to investigate the cultural context of the food environment in Japanese preschools. We hypothesized the nursery/preschool lunches may limit or reduce the development of picky eating in Japan.

Japanese Preschools and Nursery Schools

A high percentage of Japanese children attend nursery school (*hoikuen*) and preschool/kindergarten (*yo-chien*). More than 70% of three-year olds, 80% of four year olds and 90% of 5 year olds attend *hoikuen* or *yo-chien* in Japan (Ishikida, 2005). *Hoikuen* is managed by the Department of Health and Social Welfare and in order to get licensing most schools have kitchens and dietitians associated with the schools who plan out all meals (all children get the same meals every day, with the exception of children who have allergies who are provided with allergen free alternatives). At the *yo-chien*, by contrast, many children will bring a bento box (a boxed lunch), at least a few days per week.

Previous research suggests that at both types of nursery schools, however, children follow strict rules for eating and finishing meals (Allison, 1991). Group ethos may create a situation where the whole class has to wait until the last child finishes, preventing children from being picky eaters or else they may get teased by peers.

There may be a reduction in picky eating in Japan due to the structured eating environment at Japanese *hoikuens*. We further hypothesized that these strict rules prevent the development of picky eating behaviors in Japanese children.

Ethnographic Research at Japanese Nursery Schools

Methods

During 2019-2020 we visited 8 different nursery schools (*hoikuen* and *yo-chien*) in Tokyo and Chiba areas including one university school that was unlicensed, one unlicensed unaffiliated nursery school and one *yo-chien* (kindergarten). The preschools were managed by different management groups including Shogakukan-Shueisha, Hitowa Kids Life, Poppins and Global Kids Corp. We conducted interviews with teachers, managers/directors of the nursery school, management groups and dietitians. Visited lasted between 2-3 hours. Questions centered on eating practices, rules and restrictions and observations on site included observation of meal times, snack times and viewing of the kitchen (from outdoor viewing areas). We also collected menus and assessed dietary intake by age group. The study received exempt approval from the Institutional Review Board (Committee on Human Research (CHR) of the University of California, San Francisco.

Results

All *hoikuens* that we visited with the exception of the two unlicensed ones and the one *yo-chien* had kitchens on-site that prepared all children's meals.

Rules

Universally, the preschools had the same approach to eating and finishing food for children. All children were seated together by classroom, ate together and said a small statement of thanks prior to beginning the meal (*itadakimasu* or "I humbly receive this meal"). Foods served consisted on foods that needed to be eaten with chop sticks, spoons or forks (e.g. a meat dish, vegetables and a soup were always served at lunch time). Cut up fruit is commonly served as desert. There were no finger foods that were served as the main meal. Attached are photos (Figures 1-2) of one of the school kitchens (Figure 1) as well as examples of typical meals that are provided to children in the *hoikuens* (Figure 2).

All *hoikuens* did not allow outside food or beverages brought in by parents. There is only one option (school meal) and children or parents with concerns are not allowed to bring food from home. The only drinking options for children are milk, water and *mugicha* (a barley non-caffeinated tea). There are no sugar sweetened beverages. The unlicensed *hoikuen* and the *yo-chien*, by contrast, allowed bento boxes (packed lunches from home) but desserts and certain types of beverages (sugar sweetened beverages or flavored milks/yogurts were not allowed by the school). Holiday and birthdays were celebrated by the schools (not by the parents) with special meals chosen by the school (often not of a sweet variety). The schools and dietitians determined how holidays would be celebrated and which types of food would be regularly served.

Types of Meals

Similar to the emphasis on seasonality in Japanese cuisine, the preschools chose seasonal vegetables and fruits to serve at meals as well as meals that indicated the beginning of Spring or were more suitable for winter. Below we outline some of the meals that were commonly served for lunch and snack time to 3 year-old children although variants of these meals were also served to 2 and 4 year-old children at the same schools. Soups served included bamboo shoot, bean sprout, minestrone, *chuka* soup ("Chinese soup"), *bonito* soup (*bonito* fish), seaweed, miso and thick fried tofu soup. Soup was always included at lunch meal as was salad. Daily salads include cucumber salad, *hijiki* seaweed salad (brown algae), potato or vermicelli.

Main dishes included dishes from other countries as well as the different regions of Japan and included the following: *yakitori don* (grilled ginger chicken), fried chicken, salmon teriyaki, *gomayaki* (sesame steak) or *sawara* (fish), spinach *don* (spinach rich bowl), meat and potatoes, Milan cutlet (chicken or beef), *Okinawa oden* (fish dumplings from Okinawa prefecture), swordfish steak, stir fry tuna and *hijiki, bukkake* udon (udon noodles with bonito fish and creamy soy sauce), chicken *nanban* (chicken with cream sauce from Miyazaki prefecture). Other vegetables that were severed on the side included

simmered dried daikon strips (radish), bok choy (Chinese cabbage) or *komatsuna* (Japanese mustard spinach).

All the nursery schools also included afternoon snacks. Snacks included rice balls, seaweed rice, spring cabbage cooked rice, soy milk *kuzumochi* (mochi cakes made of Lactobacillales fermented wheat starch), *rorukeki* of strawberries (roll cake), cocoa donuts, *eho maki* (long sushi roll eaten to celebrate beginning of spring) and *karaimo* dumpling (sweet potato dumpling) among others.

We witnessed a couple instances where there were leftovers for snack and children had to engage in raffle type participation (led by the teacher) in order to receive seconds. These were enthusiastically participated in by all 3-4 year old children (class of 20-30 children) even though there were only 2-3 servings remaining. We also witnessed experiences where a couple of preschool children (2-3 years) wanted more food than was provided (in particular seconds of rice). Although the children had tantrums, these demands were discussed by teachers, noted and not provided.

Nutrition Education

All of the *hoikuens* we visited had dietitians provide nutritional education to young children. Indeed, in 2004, the Ministry of Education implemented the Basic Law of *Shoku-iku* or healthy eating in schools from primary up, so that healthy eating is taught in every school (Nerman, 2015). Home economics in grades from 5 to 12 is not an elective but a mandatory course. As early as the preschool-education period, healthy nutrition is emphasized in the school environment. We saw nutrition education of children from 2-4 years of age that centered on introduction of new fruits or vegetables, cooking foods, nutrition as health (categorization of foods and unhealthy/healthy foods, seasonality of foods and meals specific to certain cultures or holidays).

Discussion

In contrast with American preschools and nursery schools where there are no restrictions on parents bringing in food including lunch and snacks for children, the eating environment is heavily regulated by the Japanese government for the licensed nursery schools (*hoikuens*).

We did not witness any problems with picky eaters because picky eating was not tolerated. There were not special or unique meals for children who had food preferences. The only eating differences that we witnessed were related to food allergies, which were carefully attended to with children eating in separate locations with different meals and care providers.

Other areas of the world including the United States, Europe and other parts of Asia have problems with picky eaters in preschool because parents, teachers and the community expect and tolerate these behaviors. The example of preschools and daycares in Japan illuminate the plasticity of childhood and the possibility that children could conform to more rigid feeding structures. In psychiatry, the term “culture bound syndromes” has been used to describe the manifestation of particular symptoms in a

certain cultural context such that the “disease” is only recognizable in a certain society or culture (Ventriglio et al., 2016). Picky eating appears to be a cultural phenomenon, most common in cultures and communities impacted by Western norms that allow children independence and choice with early feeding decisions. The example of preschools in Japan suggests that American children could have improved eating habits and behaviors and potentially a resultant potential decrease in the prevalence of obesity; picky eating behaviors may be a Western-specific culture bound syndrome.

Conclusions

Mealtime is a structured experience in Japanese preschools and individual choices for food are not permitted. We argue that picky eating may be a culture bound syndrome specific to North American and European settings as there are limited reports of picky eating in Japanese preschools. American children could have improved eating habits by restricting approaches to eating in the school setting.

Declarations

Ethics approval and consent to participate

University of California, San Francisco Committee on Human Research (Institutional Review Board) granted exempt status for this study. Consent for participation was verbal from participants. The Institutional Review Board waived signed consent as there was no protected health information (PHI) collected from subjects.

Availability of data and material:

N/A

Consent for publication

N/A

Competing interests:

None

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Authors Contributions

JMW designed the study, collected data and did data analysis and wrote the paper. AK collected data and helped with the manuscript preparation. JMW and AK approved the final version.

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Figures



Figure 1

On-site kitchens at hokuiens



Figure 2

Typical three-four plate meals at hokuimens including seating pattern