

Introduction

- Mealtimes can be an opportunity for gender socialization.
 - Moms and dads can model different types of eating behaviors or concerns (Scaglioni et al., 2008; Tibbs et al., 2001)
 - Parents feed more higher calorie meals and provide fewer vegetables to boys than to girls (Bouhal et al., 2015; Song et al., 2021)
- Previous research has focused on what adolescents and adults perceive as stereotypical eating behaviors and food selection for men and women (Jensen & Holm, 1998; Vartanian et al., 2007)
 - Men are expected to eat more meat and more portions of food overall (Vartanian et al., 2007)
 - Women are expected to eat less food overall, as well as more fruits and vegetables (Mori et al., 1987)
 - Young boys may have similar gender stereotypes around food as adult men. Specifically, that meat is for boys, salad is for girls, and boys should get to eat more food than girls (Drummond & Drummond, 2015)
- There has been little research on what eating behaviors adults consider appropriate for boys and girls, which might impact parental feeding practices

The Current Study

In this study, we will explore what kinds of meals adults make for boys and girls, as well as their motivations behind the types of food and portion sizes they choose when making these meals.

- H1: We hypothesize that meals created for boys would contain more meat and less produce than meals for girls
- H2: We expect that meals created for boys would contain larger portion sizes than meals for girls
- H3: The main motivations for choosing foods are expected to focus on health, nutrition, and convenience
 - Motivations for girls will be more focused on health & nutrition.

Methods

Participants

- 58 participants were recruited from The University of Texas at Dallas
- 76% female, 24% male
- 20% Latine, 13% Black, 33% Asian, 12% Middle Eastern, 25% White
- 5% of participants had children
- Participant BMI
 - Mean: 26.4
 - Range: 18.8 - 50.04

Procedure

- Participants completed surveys online through qualtrics
- Participants were randomly assigned to create a meal for a 3-year old boy or girl
- Then were asked open-ended and multiple-choice questions about their motivations behind the foods selected
- This procedure was repeated, but instead creating a meal for a 10-year old boy or girl

Measures

Meal Creation Task (revised from Holub & Musher-Eizenman, 2010)

- Participants select 4 foods and 1 drink from a list of 27 foods and 4 drinks (Fig.1)
- Based on pictures of a portion size of each food, participants were asked how much of each food they would serve the child (5-point scale)
 - Participants could serve more than, the same amount, $\frac{3}{4}$, $\frac{1}{2}$, or $\frac{1}{4}$ of the portion of food

Motivations

- Participants were then asked open ended questions on how they decided what types of food and how much of each food to serve
- Participants completed the modified food choice questionnaire (FCQ; Russell et al., 2014) to evaluate their motivations behind the types of food chosen for meals
 - 'It is very/moderately/slightly/not at all important to me that the food I choose for my child for a typical lunch is ... (see fig. 4 for subscales)

Results

Food Type Selection

There were no clear gender differences in the types of food selected for children

Food	3 year old girl	10 year old girl	3 year old boy	10 year old boy
Scrambled Eggs	8	3	6	3
Hot Dog	1	1	4	0
Turkey Sandwich	8	19	12	21
Roasted Chicken	5	4	4	6
Fish Sticks	2	3	4	2
Chicken Nuggets	6	1	9	1
Peanut Butter & Jelly Sandwich	7	6	4	3
Burrito	2	2	0	2
Hamburger	0	0	0	4
Cheese Pizza	2	1	2	3
Apple	5	12	6	11
Grapes	7	5	12	8
Mango	2	4	2	1
Strawberries	16	8	10	9
Green Beans	3	4	1	7
Broccoli	5	7	9	8
Baby Carrots	7	12	21	15
Tomatoes	1	2	0	0
Wheat Bread	0	0	2	1
Fries	3	0	2	4
Potato Chips	3	10	2	8
Black Beans	1	1	2	1
Strawberry Yogurt	5	3	7	4
Chocolate Cake	0	2	0	0
Cookies	4	5	3	3
Donuts	0	0	0	0
Apple Pie	1	1	1	0
Milk	7	4	8	4
Water	10	16	13	14
Juice	7	7	10	10
Soda	0	0	0	0

Fig. 1: Frequency of each food selected in meal creation task for 3- and 10-year old girls and boys

Food Portion Selection

There were no differences in the amount of food served to children based on child gender

- 3-year old children: $t(57) = 0.84, p = 0.41$
- 10-year old children: $t(57) = 0.13, p = 0.90$

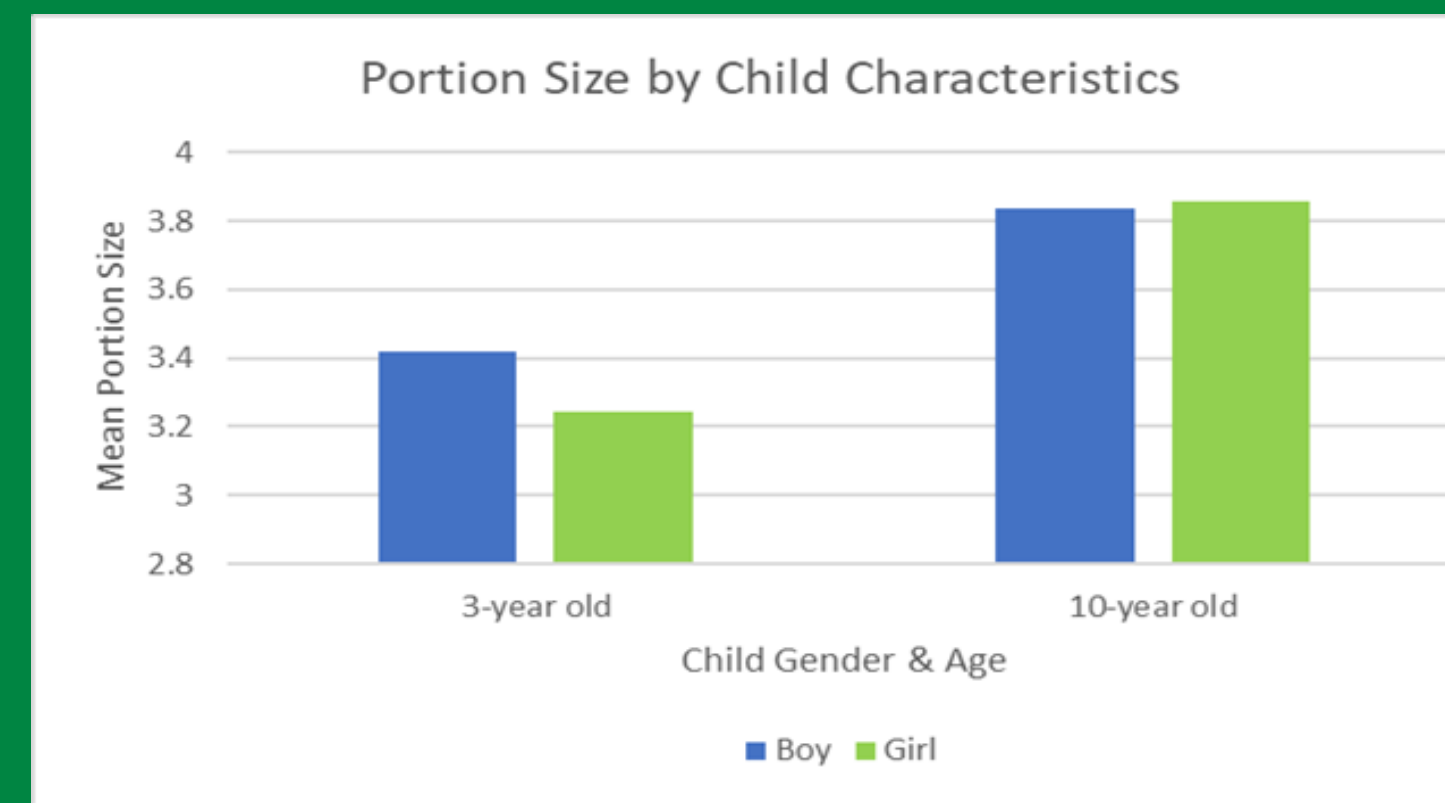


Fig. 2: Average portion sizes served to 3- and 10-year old boys and girls in meal creation task

Motivations: Open Ended

Exploratory analysis of open-ended questions about motivations in selecting foods revealed that health & nutrition and convenience were the most important factors in selecting foods

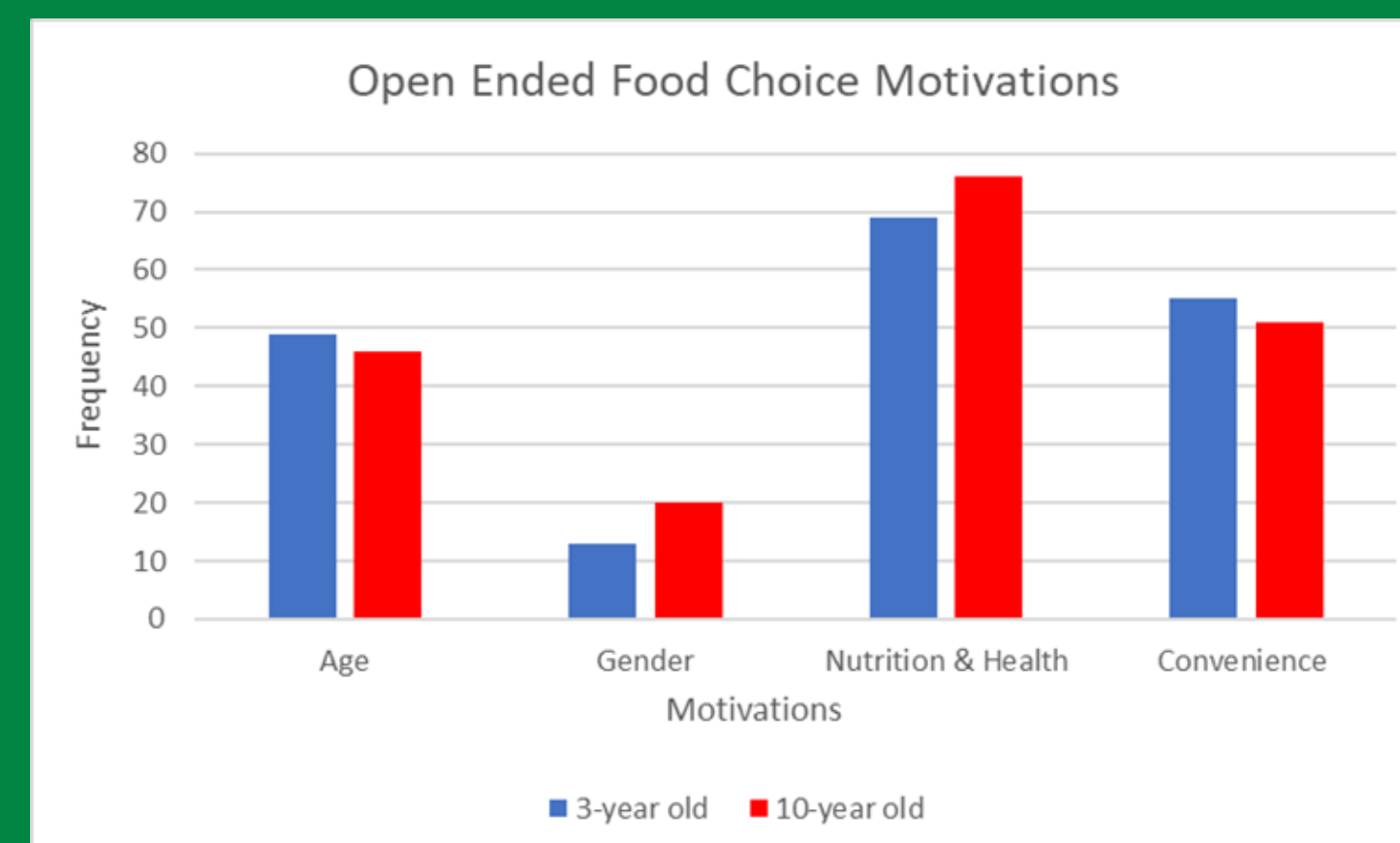


Fig. 3: Frequency of motivation selection in open ended questions on meal food choice

Motivations: Close Ended

There were no differences in motivations for feeding the 10 year old children based on child gender, but there were differences for the 3 year old children related to child gender

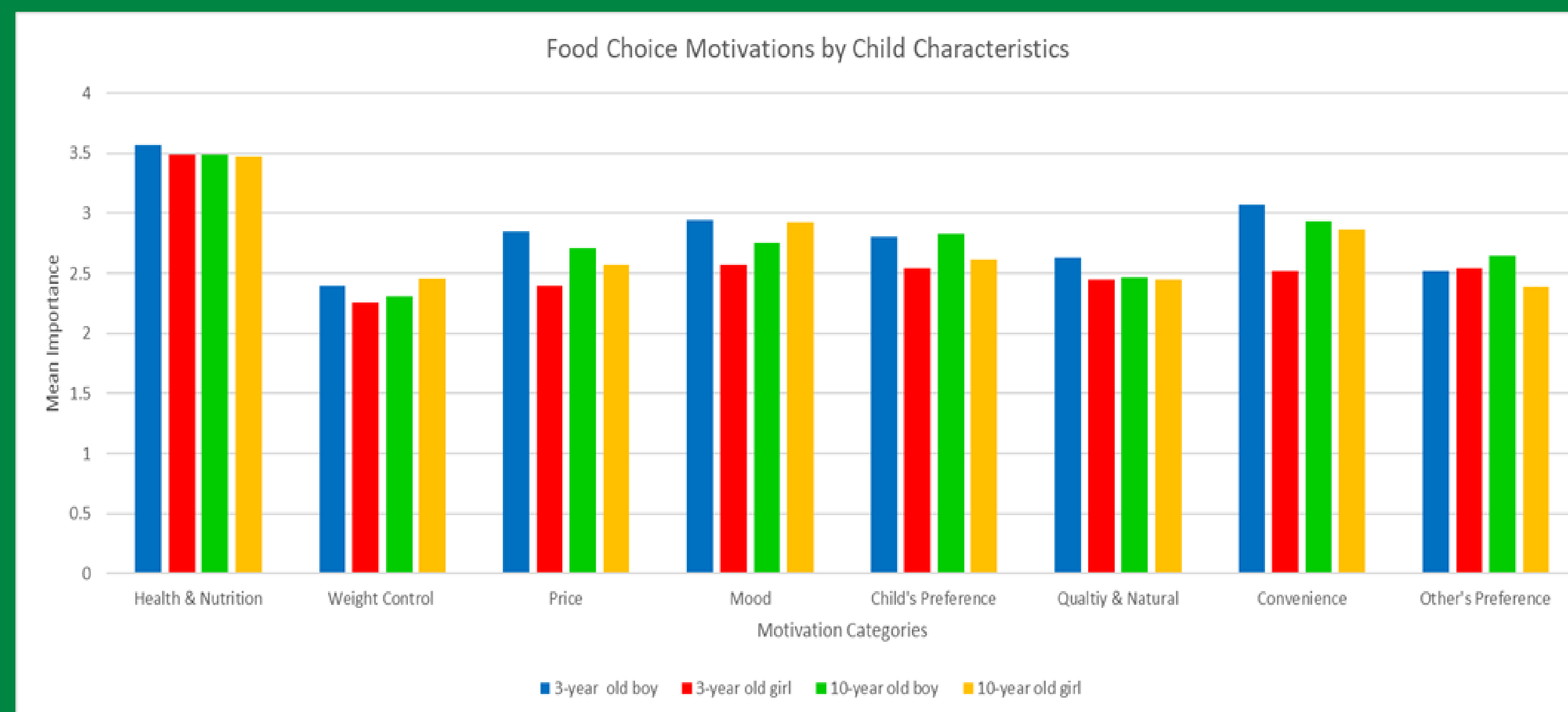


Fig. 4: Mean frequency of motivations selected by participants after creating meals

Conclusions

Discussion

- Hypothesis 1: There were no gender differences in the types of foods selected for the meal creation task
 - This is inconsistent with current literature that suggests adults believe that specific foods are more appropriate for different genders (Vartanian et al., 2007)
 - Additionally, parents have been shown to feed their children differently based on gender (Song et al., 2021)
 - This could be due to limited sample size or this protocol that was completed on-line with mostly non-parents.
- Hypothesis 2: There were no gender differences in the overall amount of food selected during the meal creation task
 - This is also different from current studies suggesting that there are differences in how much food parents feed their children (Bouhal et al., 2015)
 - Future research should examine whether differences are found while observing meal creation tasks with real food with real children present.
- Hypothesis 3: For open-ended questions, the main motivation by participants was nutrition & health.
 - Many participants cited their reasonings based on adequate serving sizes, creating balanced meals, and selecting healthy foods.
 - For 3-year olds, close-ended questions on motivations boys were more focused on convenience than for girls
 - This is consistent in following up with previous findings, which suggest that children's wants are especially important in selecting food for children's meals (Russell et al., 2014).
- There were mixed findings in these results, where the open-ended questions elicited responses more focused more on health and nutrition and the close-ended questions more on the importance of convenience for feeding younger children, specifically boys

Limitations & Future Directions

- This study recruited from college students, which may not be generalizable to a population of parents
 - Furthermore, the study did not control for participants' experiences with children, which may have affected the results
 - Future research should focus on surveying parents, especially with young children
- Participant BMI was not controlled for, which may have also affected how much they select in the feeding task
 - Parents with overweight have been shown to express conflict between their own and their child's weight status during meals (Blissett et al., 2021), as have parents with eating disorders (Chapman et al., 2021), so these qualities impact child food selections.
- Research can also be done on examining how the gender of the parent impacts how children are fed

References

Blissett, J., Meyer, C., Farrow, C., Bryant-Waugh, R., & Nicholls, D. (2005). Maternal core beliefs and children's feeding problems. *International Journal of Eating Disorders*, 37(2), 127–134. <https://doi.org/10.1002/eat.20070>

Bouhal, S., McBride, C. M., Ward, D. S., & Persky, S. (2015). Drivers of overweight mothers' food choice behaviors depend on child gender. *Appetite*, 84, 154–160. <https://doi.org/10.1016/j.appet.2014.09.0244>

Brown, K. A., Ogden, J., Vögele, C., & Gibson, E. L. (2008). The role of parental control practices in explaining children's diet and BMI. *Appetite*, 50(2-3), 252–259. <https://doi.org/10.1016/j.appet.2007.07.010>

Chapman, L., Cartwright-Hatton, S., Thomson, A., & Lester, K. J. (2021). Parental eating disorders: A systematic review of parenting attitudes, behaviours, and parent-child interactions. *Clinical Psychology Review*, 88, 102031. <https://doi.org/10.1016/j.cpr.2021.102031>

Drummond, M., & Drummond, C. (2015). My dad's a 'barbie' man and My Mum's the cooking girl. *Journal of Child Health Care*, 19(3), 279–292. <https://doi.org/10.1177/1367493513508846>

Holub, S. C., & Musher-Eizenman, D. R. (2010). Examining preschoolers' nutrition knowledge using a meal creation and food group classification task: Age and gender differences. *Early Child Development and Care*, 180, 787-798.

Mori, D. A., Chaiken, S., & Pliner, P. (1987). "Eating lightly" and the self-presentation of femininity. *Journal of Personality and Social Psychology*, 53(4), 693–702. <https://doi.org/10.1037/0022-3514.53.4.693>

O'Doherty, Jensen, K., & Holm, L. (1999). Preferences, quantities and concerns: Socio-cultural perspectives on the gendered consumption of foods. *European Journal of Clinical Nutrition*, 53(5), 351–359. <https://doi.org/10.1038/sj.ejcn.1600767>

Russell, C. G., Worsley, A., & Liem, D. G. (2014). Parents' food choice motives and their associations with Children's Food Preferences. *Public Health Nutrition*, 18(6), 1018–1027. <https://doi.org/10.1017/s1368980014001128>

Scaglioni, S., Salvioni, M., & Galimberti, C. (2008). Influence of parental attitudes in the development of children eating behaviour. *British Journal of Nutrition*, 99(S1), <https://doi.org/10.1017/s0007114508892471>

Song, S., Ishidori, A., & Dave, J. M. (2021). Gender differences in nutritional quality and consumption of lunches brought from home to school. *International Journal of Environmental Research and Public Health*, 18(24), 13168. <https://doi.org/10.3390/ijerph182413168>

Tibbs, T., Haire-Joshu, D., Schechtman, K. B., Brownson, R. C., Nanney, M. S., Houston, C., & Auslander, W. (2001). The relationship between parental modeling, eating patterns, and dietary intake among African-American parents. *Journal of the American Dietetic Association*, 101(5), 535–541. [https://doi.org/10.1016/s0002-8223\(01\)00134-1](https://doi.org/10.1016/s0002-8223(01)00134-1)

Vartanian, L. R., Herman, C. P., & Polivy, J. (2007). Consumption stereotypes and impression management: How you are what you eat. *Appetite*, 48(3), 265–277. <https://doi.org/10.1016/j.appet.2006.10.008>

Acknowledgements

I am grateful for my research mentor Dr Shayla Holub for providing her knowledge on the subject and her guidance throughout the duration of the research project. I would also like to thank the REU faculty for the opportunities provided to me and my fellow student colleagues, who have supported my journey throughout the program.