

The Drivers of Food Choice in the Context of Overweight Among Women and Children in Malawi

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Key Takeaways

- **Body size preferences:** More than half of mothers wanted their child to be larger than the current size, but there was no difference by the child's weight status. Their desired strategies for increasing weight indicated that body size preferences may drive food choice but could be limited by affordability.
- **Food purchasing:** Cost, taste, and food quality were the most important drivers of women's food purchasing choices. More than half of mothers said they buy foods specifically for their children, such as sweets, packaged snacks, fruits, or fried foods (e.g., doughnuts).
- **Drivers of food choice:** Child age, maternal taste preferences, maternal body size preferences, household food security, and spending on "special" foods for children were the most consistent predictors of food group consumption. Predictors of food choice varied by season and for mothers and children.

Objectives

The overall project objective was to identify and explain predictors of dietary intake and food choice among Malawian mother-child dyads containing an overweight mother, child, or both.

Background

Over the last two decades, Malawi's nutrition transition has given rise to a number of challenges. Overweight is now more common than underweight in both urban and rural areas. Among children, undernutrition remains high but there is also a rising population of those who are overweight. There is sparse information on the factors that drive these health trends. This study provides evidence to inform interventions to address diet-related non-communicable diseases among Malawian mothers and children.

Methods

The study was conducted in Lilongwe and Kasungu Districts in the Central Region of Malawi, which has the highest prevalence of overweight among women and children. Researchers used a mixed-methods approach to obtain information on drivers of food choice among three types of mother-child dyads (n=274) with disparate nutritional status: (1) overweight mothers with an overweight child, (2) overweight mothers with a normal weight child, and (3) normal weight mothers with an overweight child. Weight status was based on anthropometric screening and global cutoffs were used to determine overweight for mothers (body mass index ≥ 25 kg/m²) and children (weight-for-height z-score $> +2$ SD). Interviewers administered questionnaires quantifying dietary intake, food preferences, food insecurity, economic factors, intrahousehold decision-making, gender-related factors, morbidity, and body size

preferences. In-depth interviews with food choice pile sort activities and market trip and household food logs were conducted with a subset of mothers. The role of seasonality in shaping food choices was accounted for by collecting data during both the rainy and dry seasons.

Results

Mothers and children in dyads with an overweight child had a higher percent of calories from carbohydrates and lower percent of calories from fat compared to dyads with a normal weight child (both $p < 0.01$). This was reflected in the food group data as these mothers also had the highest intake of grains ($p < 0.01$) and their children had the lowest intake of oils/fats ($p = 0.01$).

Child age, maternal taste preferences, maternal body size preferences, and children's requests for treats were the most consistent predictors of food choice. Having to spend less time traveling to food outlets by using some form of mechanized transport instead of walking as well as the mother taking responsibility for procuring food for the household was positively associated with intake of foods such as grains, vegetables, meats and eggs, oils/fats, and sweets. Household food insecurity was negatively

associated with intake of grains, fruits, meats and eggs, oils/fats, and snacks.

Cost, taste preferences, freshness, and perceived healthiness were the strongest factors in food purchasing decisions. If a food was too expensive, mothers explained that they would buy a smaller quantity or something different (e.g., fish instead of chicken). Many mothers reported buying foods their family prefers and prioritizing children's taste preferences to reduce food waste. Freshness of foods, particularly fruits and vegetables, as well as perceived healthiness, also influenced food purchases. However, mothers' knowledge of actual nutritive value of foods was variable. Mothers used part of their food budget to purchase unhealthy foods (e.g., packaged or fried snacks) for their children, despite their overall emphasis on food cost and healthiness.

Mothers preferred larger body sizes for themselves and for their children, especially if the child was already overweight/obese. Mothers described a mix of healthy foods (e.g., fruits, vegetables, and milk) and unhealthy foods (e.g., soft drinks and sweetened yogurts) that they could eat themselves or feed to their child to facilitate weight gain.

More Information

- Bliznashka L, Danaei G, Fink G, Flax VL, Thakwalakwa C, Jaacks LM. (2020). "Cross-country comparison of dietary patterns and overweight and obesity among adult women in urban Sub-Saharan Africa." *Public Health Nutrition*, 1-11. - <https://pubmed.ncbi.nlm.nih.gov/32390577/>
- Flax VL, Thakwalakwa C, Phuka JC, Jaacks LM. (2020). "Body size perceptions, body size preferences, and food choice among mothers and their children in Malawi." *Maternal & Child Nutrition*, 16, e13024. <https://onlinelibrary.wiley.com/doi/full/10.1111/mcn.13024>
- Flax VL, Thakwalakwa C, Schnefke CH, Phuka JC, Jaacks LM. (2021). "Food purchasing decisions of Malawian mothers with young children in households experiencing the nutrition transition." *Appetite*, 156, 104855. <https://www.sciencedirect.com/science/article/pii/S0195666320307212>
- "Innovative Methods for Measuring Drivers of Food Choice in Malawi." Blog by Flax, VL. <https://driversoffoodchoice.org/2018/04/30/innovative-methods-for-measuring-drivers-of-food-choice-in-malawi/>
- Project Page - <https://driversoffoodchoice.org/research/project-descriptions/women-and-children-in-malawi/>

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