Characteristics of Family Meals That May Contribute to Health

By Gayle Coleman

Multiple studies indicate that family meals contribute to healthful dietary intake in adolescents. But little is known about the mechanisms of family meals that may explain these healthful behaviors. Berge and colleagues conducted Family Meals, LIVE!, a substudy of the linked Project EAT (Eating and Activity Among Teens) and F-EAT (Families Eating and Activity Among Teens) studies to describe the characteristics and interpersonal dynamics of family meals and test the association between interpersonal dynamics at family meals and adolescent dietary intake and body mass index.

Between 2010 and 2011, 41 families who had participated in both Project EAT and F-EAT studies in the Minneapolis/St. Paul metropolitan area volunteered to participate in Family Meals, LIVE! The participants were 45% black, 35% white, 10% Latino, 5% Asian, 2% Native American and 3% mixed. The socioeconomic status (SES) of families included: 33% low SES, 20% low-middle SES, 15% middle SES, 5% upper-middle SES, and 10% high SES. The mean age of parents was 42 years and mean age of adolescents was 14 years.

Families were told that the purpose of the study was to learn more about what the “modern day” family meal looked like. They agreed to have dinners in their homes videorecorded two times and exactly one week apart from each other. Study personnel set up the videorecording equipment in the room the family selected for their meal and were not present during the recording.

Several tools that had been found to be valid in racially/ethnically and socioeconomically diverse families in previous studies were used to measure direct observation in this study. The Mealtime Observation Form was used to capture structural characteristics of the mealtime environment. The Mealtime Interaction Coding system was used to code parent and child interactions around family meals. Body Mass Index (BMI) scores and fruit and vegetable intake obtained from Project EAT were used to measure adolescent health outcomes.

One family’s responses were identified as outliers and dropped, leaving final results for 40 families. Observation of the videorecordings indicated that the average length of a family meal was 19 minutes and at least one parent was present at the meal, with 83% of parents being mothers and 38% being fathers. More than half (62%) of the family meals took place in the kitchen or dining room with the remaining 38% taking place in another room in the house (family room, office, bedroom). Approximately 35% of families had TV on in the same room as the family meal or in an adjoining room.

Most families (70%) served their meals family style while parents preplated the food in 15% of families and children directed the type and amount of foods to be put on their plate in 10% of families. Most meals included some type of meat (88%) and some type of grain food (85%) such as pasta, rice, bread, tortilla. More than 75% of families served a vegetable for dinner but only 18% served fruit. One quarter of families had dairy foods available for dinner. Sixty percent of families served either milk or water for dinner, 15% served a sweetened beverage and 33% did not serve a beverage. Only 8% of families served a dessert.

If a child resisted eating a food, 45% of parents used verbal coaxing and 40% used compromising/bargaining with the child such as telling her that she could have dessert if she ate her vegetable. Only 13% of parents used threats or intimidation such as telling the child he could not leave the table unless he ate the food.

Quantitative results indicated a significant association between lower BMI in adolescents and several positive family meal interpersonal dynamics:
There also were significant positive associations between higher consumption of vegetables in adolescents and these family meal interpersonal dynamics as well as the other three additional positive interpersonal dynamics measured:

- Task accomplishment – families make family meals a routine;
- Behavioral control – have predictable rules and expectations;
- Roles – have shared and individual roles specific to the meal.

There were no significant associations between adolescent fruit consumption and family meal interpersonal dynamics.

The results of this study indicate several structural and interpersonal characteristics of family meals that may help explain the significant associations between family meal frequency and adolescent healthful eating behaviors. Berge and colleagues encourage health care providers and health educators to consider educating families about the importance of interpersonal dynamics at family meals.

*Implications for Extension Educators:* Extension educators can support and encourage family meals as a way to improve the dietary quality of older children and adolescents. Extension educators can also encourage positive interpersonal dynamics at family meals.

Resources That May Be of Interest to FLP Staff

By Gayle Coleman

Free food and nutrition apps and digital resources that may be of interest (this is not an endorsement)

Nutrition apps
The Academy of Nutrition and Dietetics provides reviews, updated periodically, of food and nutrition apps, http://www.eatright.org/appreviews/#.UbDgAFUo7cu

Food resource management apps
Cooking Matters app, now available for Android and iOS
Food on the Table app review, http://foodandnutritionmag.org/app-review-food-on-the-table
Other reviews by Food & Nutrition magazine, a magazine of The Academy of Nutrition and Dietetics, http://foodandnutritionmag.org/resources/app-reviews

Other recommendations
Although this isn’t a resource that FLP Educators would use with learners, check out ChopChopKids, a non-profit organization whose mission is to inspire and teach school-age children to cook real food with their families. It is reviewed and endorsed by the American Academy of Pediatrics and won the 2013 James Beard Foundation Award for Publication of the Year. I have a personal subscription to their magazine and look forward to sharing it with future grandchildren! (which may be awhile 😊)