Research Brief

Supporting Families to Cook at Home and Eat Together: Findings From a Feasibility Study

Jennifer Utter, PhD[1]; Simon Denny, PhD[2]

ABSTRACT

Objective: The current study tested the feasibility and acceptability of an intervention that provided families with meal plans, recipes, and ingredients to cook meals at home.

Methods: Ten diverse families (1 adolescent, 1 parent) were provided with the resources to prepare 5 family dinners/wk for 8 weeks. Process data were collected by weekly telephone calls. Outcome data were collected by open-ended interviews with parent or caregiver and adolescents, separately.

Results: Most of the meals provided were prepared (86%) and a high proportion of meals prepared were eaten together by families (96%). Both parents and adolescents reported that the intervention was acceptable, particularly the opportunity to try new foods. Families reported multiple benefits to participation, including eating healthier, feeling better, and having improved relationships.

Conclusions and Implications: Providing families with resources for home cooking appears to be an acceptable and well-enjoyed intervention. Further research measuring the health and social impacts of this intervention is warranted.

Key Words: family meal, adolescent, parent, nutrition, dinner kit (*J Nutr Educ Behav*. 2016;■:1-7.)

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INTRODUCTION

Poor nutrition poses a major threat to the health and well-being of adolescents. In New Zealand, only 30% of adolescents meet the requirements for fruit and vegetable consumption,[1] whereas 13% of adolescents are obese.[2] Similar nutritional concerns for adolescents are observed internationally, with generally low rates of fruit and vegetable consumption and frequent consumption of sweets and soft drinks.[3] In the US, most adolescents do not meet recommendations for nutrient-rich foods, such as fruits and vegetables, and eat an excess of foods high in added fats and sugars.[4] Moreover, the prevalence of obesity among 12- to 19-year-olds in the US has reached 20%.[5]

Families and the home food environment have an important role in determining the eating behaviors of adolescents.[6] Specifically, young people who share meals with their families have better dietary outcomes[7,8] and are less likely to develop obesity as an adult.[9] Likewise, adolescent involvement in cooking appears to be associated with better dietary indicators among young people that may track into adulthood.[10-12]

Research conducted to date on the role of family meals in the healthy dietary patterns of adolescents has largely been observational, although a few intervention studies have been attempted.[13,14] The most notable is the *HOME Plus* intervention, a randomized controlled trial that aims to increase family meals and reduce child obesity.[13] The *HOME Plus* intervention is delivered as an educational, family-focused, community-based intervention over 10 months. Results from the *HOME Plus* study have not yet been published.

Whereas educational programs offer a feasible and affordable strategy to increase family meal frequency, it remains unknown whether education-based strategies will be adequate to change how families cook and eat over the long term. Education-based interventions address the knowledge and skills gap in the ability of families to prepare family meals but do not address the wider barriers families face in preparing home-cooked meals. This is particularly concerning because parents report that having help with preparation, timing, planning, and designing easy and healthy recipes would make it easier for their families to eat together.[15] Thus, the current study describes an intervention strategy that directly addresses these challenges to increase the frequency of family meals.

The aim of the current study was to determine the feasibility of an intervention based in New Zealand to improve the nutrition of adolescents through family meals. Specifically, the intervention was designed to increase the frequency of home-prepared family meals and adolescent

[1]School of Population Health, University of Auckland, Auckland, New Zealand
[2]Department of Paediatrics, Child and Youth Health, University of Auckland, Auckland, New Zealand

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Address for correspondence: Jennifer Utter, PhD, School of Population Health, University of Auckland, Private Bag 92019, Auckland, New Zealand 1142; Phone: +(64 9) 3737 599; E-mail: J.utter@auckland.ac.nz

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participation in cooking by providing families with the meal plans, ingredients, and recipes to prepare 5 family meals each week for 8 weeks. The feasibility study aimed to answer the following: (1) Was the intervention effective in encouraging families to share meals and involve adolescents in cooking? (2) Was the intervention acceptable to families? (3) How did the adolescents and caregivers describe any benefit of the intervention?

METHODS

The current study was designed to test the feasibility of a family meal intervention in New Zealand. In 2015, 1 secondary school in Auckland was approached to help recruit families for the intervention. The school was selected because of the ethnic and socioeconomic diversity of the student body. Researchers met with the school nurse and guidance counselor to explain the study. The school nurse and guidance counselor recruited a convenience sample of 10 families for the study. The only eligibility criterion was that both the adolescent and parent or caregiver could speak and read in English. Ethical approval for the study was granted by the University of Auckland Human Participants Ethics Committee.

Once families were recruited, all data were collected in families' homes or over the telephone. At the baseline data collection, members of the research team explained the study, answered questions, and gained consent for the study. Parents or caregivers and adolescents provided consent (or assent for adolescents aged ≤ 15 years) to participate in the study. Both the adolescent and parent or caregiver completed a baseline survey assessing the sociodemographic characteristics of the participants, dietary intake, and measures of family relationships and mental well-being. During the intervention, the parent or caregiver answered a weekly telephone survey that assessed how the intervention was going. At the end of the intervention, members of the research team conducted follow-up surveys and open-ended interviews with the adolescents and parents or caregivers in their homes.

Description of the Intervention

The intervention was designed to remove the major barriers (as described by Fulkerson et al[15]) that families experience in cooking at home and eating together. Because the aim of the study was to determine the feasibility and acceptability of the intervention, the study design included follow-up measures only, with no comparison group. A baseline and follow-up survey was included in the survey to describe the participating families and to determine the acceptability of the measures, not to measure the impact on nutrition and health outcomes. A full trial would estimate the health and social impacts of families eating together for adolescents. The intervention was developed based on theories of human development[16] and family functioning,[17] which posit that families are critical to the healthy development of young people and that family meals may provide a unique opportunity for building family relationships.

Participating families were provided with meal plans, recipes, and ingredients to prepare 5 healthy meals for the family every week for 8 weeks. The recipes and ingredients were delivered to the family home each week. Families were provided with any cooking implements (eg, frying pans, measuring cups) needed to participate in the study. Families were asked to prepare the meals and share them together. Adolescents were encouraged to participate in meal preparation. A member of the research team was available by phone to answer any questions and help with issues that arose during the intervention.

The intervention was provided to families at no monetary cost. Families did not have input into the weekly meal planning or recipe selection. Family preferences for foods or meals were not regarded. Families were able to choose whether to follow the recipe, whether to prepare the meals, and the order in which to prepare the meals each week.

The meal plans, recipes, and ingredients were purchased from My Food Bag. The researchers selected My Food Bag to provide the service because it was one of the only established businesses in New Zealand that could meet the requirements of the intervention. Meals planned by My Food Bag are healthy and seasonal and take between 20 and 45 minutes to prepare. Several options of My Food Bag exist; families were provided with the option that best suited their family size. When prepared as suggested, the entire meal (for families of 4–5 people) provided an average of 2,400 cal and 18 servings of fruits and vegetables (based on serving sizes recommended by the New Zealand Ministry of Health[18]).

Measures

A process evaluation was conducted alongside the intervention. A member of the research team conducted a telephone short interview (< 10 minutes) each week of the intervention with the parent or caregiver. The interviewer asked how the meals were prepared and consumed and about any challenges the families faced with the intervention. The telephone calls were not recorded; the researcher noted by hand responses to the interview.

At the end of the intervention, the adolescents and parents or caregivers completed open-ended interviews with a member of the research team. During the interviews, participants were asked to comment on their overall experiences with the intervention and any impact participation had on their family. All interviews were audio recorded and transcribed for analyses.

Analysis

Notes from the weekly telephone interviews were used to tally the number of meals prepared each week, number of meals consumed together, and adolescent involvement in meal preparation. The proportions of meals prepared were estimated by dividing the number of meals prepared by the number of meals provided. Likewise, the proportion of meals shared as a family was estimated by dividing the number of meals shared by the number of meals prepared. All open-ended interviews were analyzed following the general inductive method,[19] which is a simple, systematic method for analyzing qualitative data for focused evaluation questions. First, high-level categories were created to align with the aims of the study. After multiple close readings of the text, the lower-level themes were derived from actual phrases or meanings in text