Research Article

Family Meals and Adolescent Emotional Well-Being: Findings From a National Study

Jennifer Utter, PhD, MPH, RD[1]; Simon Denny, PhD, FRACP[2]; Roshini Peiris-John, PhD[1]; Emma Moselen, MappPsy[3]; Ben Dyson, PhD[4]; Terryann Clark, PhD[3]

ABSTRACT

Objective: To describe the relationship between family meals and adolescent mental health and determine whether the relationship differs by sex.

Design: Secondary analyses of a cross-sectional survey.

Participants: A total of 8,500 nationally representative students.

Main Outcome Measures: Reynolds Adolescent Depression Scale; Strengths and Difficulties Questionnaire; World Health Organization Well-being Index.

Analysis: Multiple regression models determined the relationships between family meals and mental health indicators; sociodemographic variables and family connection were included as covariates.

Results: Approximately 60% of adolescents shared family meals ≥5 times in the previous week, whereas 22% reported that they shared ≤2 meals in the previous week. Greater frequency of family meals was associated with fewer depressive symptoms ($P < .001$), fewer emotional difficulties ($P < .001$) and better emotional well-being (<.001). These relationships between family meals and depressive symptoms were attenuated by sex; the relationship was stronger for females than for males.

Conclusions and Implications: Frequent family meals may have a protective effect on the mental health of adolescents, particularly for depressive symptoms in girls. Interventions that aim to increase the frequency of family meals are needed to evaluate whether family meals alone can have an emotional benefit for adolescents.

Key Words: family meal, adolescent, mental health, well-being (*J Nutr Educ Behav*. 2016;■:1-6.)

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INTRODUCTION

Family meals appear to be important to the healthy development of adolescents. It was hypothesized that regular family meals enhance family functioning, such as through communication, sharing family values, parental monitoring of adolescent behaviors, and collective problem solving.[1,2] Healthier family functioning contributes to better health and well-being for young people.[3] These hypotheses are consistent with a growing body of literature documenting the relationship between frequent family meals and multiple indicators of adolescent health.[2,4] Adolescents who frequently share meals with their families have better nutrition,[4,5] are less likely to engage in unhealthy weight control practices,[6-8] and report fewer health risk behaviors.[9-11]

An emerging body of evidence has also begun to explore the relationship between family meals and indicators of adolescent mental health.[1,10-14] Of these existing studies, the majority were conducted in North America[1,10-13] and many measured only negative dimensions of mental health (eg, depressive symptoms).[10-13] Findings from these studies suggested that frequent family meals were associated with fewer depressive symptoms. Two studies demonstrated significant relationships between family meals and positive dimensions of mental health, such as emotional well-being.[1,14] All of the research conducted to date has been observational. Although intervention trials would provide stronger evidence of the nature of the relationship between family meals and adolescent mental health, they are difficult to design and implement. Observational studies allow the relationship between family meals and adolescent mental health to be explored while accounting for other factors that may influence the relationship.

Given the gender differences in mental health concerns,[15] it is surprising that the current authors could only identify 1 study that examined whether the relationship between family meals and mental health was moderated by

[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
[3]School of Nursing, University of Auckland, Auckland, New Zealand
[4]Faculty of Education, University of Auckland, Auckland, New Zealand

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Address for correspondence: Jennifer Utter, PhD, MPH, RD, School of Population Health, University of Auckland, Private Bag 92019, Auckland 1142, New Zealand; Phone: +(64 9) 3737 599, Ext 89022; E-mail: j.utter@auckland.ac.nz

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gender. Elgar et al[1] found a significant relationship between frequent family meals and prosocial behavior, which was stronger for males than females.

The current study aimed to extend the evidence base examining the potential role family meals have in the mental well-being of adolescents in New Zealand. The study describes the relationship between family meals and adolescent mental health and attempted to determine whether the relationship differs by sex.

METHODS

Data for the current study were collected as part of *Youth '12*, a nationally representative survey of the health and well-being of secondary school students in New Zealand. In total, 8,500 secondary school students participated in the survey. There were slightly more females (54%) than males and slightly more younger students (22% aged ≤13 years, 22% aged 14 years, and 21% aged 15 years) than older students (19% aged 16 years and 17% aged ≥17 years). Full details of the methodology and design of the *Youth '12* survey were described previously.[15]

The *Youth '12* survey used a 2-stage sampling design. First, 125 schools were randomly selected to participate; of these, 91 took part in the survey. From the participating schools, 12,503 students were randomly selected for participation and 8,500 students consented to take part. Reasons for nonparticipation were largely unknown or because students were absent from school on the day of the survey.[15]

The researchers obtained consent for participation from school principals on behalf of the boards of trustees. Students and parents were provided with information sheets about the survey. Parents were encouraged to discuss the survey with their child and could withdraw their child from participation. Parents did not provide written consent but they could decline their child's participation in the survey. Students consented themselves to participate in the survey. The University of Auckland Human Participants Ethics Committee granted ethical approval for the study.

All data collection took place at school during the school day. On the day of the survey, students were asked to come to a designated room. Upon arrival students were given an anonymous login code to access the survey. The survey included a 608-item, multimedia questionnaire administered on a tablet computer. Identification of each student's census meshblock number (based on the residential address) was used to determine the geographical location of the small area in which a student lived (approximately 90 households/meshblock). The multimedia nature of the questionnaire meant that all students could read each question and response options themselves while listening to the questions and responses being read aloud through headphones. Average time to complete the survey was 67 minutes.

Measures

Frequency of family meals was assessed with the item, During the past 7 days, how many times did all or most of your family living in your house eat a meal together? Five response options ranged from never to ≥7 times/wk. For analyses, the never and 1–2 times/wk responses were aggregated to create 4 categories of similar size.

Demographic variables of age (13–17 years), sex, and ethnicity (Māori, Pacific Island, Asian, or European/other) were assessed by self-report. Household poverty was defined as student reports of 2 of the following 9 indicators: parents worry about having enough money for food (often/all the time), moving homes frequently (≥2 times in past year), not having a working car at home, not having a telephone at home, not having a computer at home, overcrowding (>2 people/bedroom), both parents unemployed, use of rooms other than bedrooms for sleeping (eg, living room, garage), and not going away on a family holiday during the past 12 months.[16] Small-area deprivation was determined by linking the small-area meshblock of the student's residential address to the New Zealand Index of Deprivation to measure area-level deprivation.[17]

Family connection was assessed with a 9-item scale assessing whether the family had fun together and got along, and whether the student felt close to mother/father, spent enough time with mother/father, and felt mother/father were warm or loving. The measure was developed for use with this study. Cronbach α for the scale was .84.

The *Youth '12* survey included several measures of mental health. Mental well-being was assessed with the World Health Organization Well-being Index, a 5-item scale assessing constructs of positive mood, vitality, and general interests,[18] and was previously validated with adolescent populations.[19,20] Higher scores indicate greater levels of well-being. Depressive symptoms were assessed using the previously validated Reynolds Adolescent Depression Scale–short form.[21] This scale was validated for use with adolescents in New Zealand.[22] The score includes 10 items with 4-point Likert response options. Higher scores indicate greater depressive symptoms. Total difficulties was measured with the previously validated Strengths and Difficulties Questionnaire,[23] a self-administered questionnaire measuring 5 domains (emotional symptoms, conduct problems, hyperactivity, peer problems, and a prosocial scale). The 4 domains (excluding the prosocial scale) were combined to create a measure of total difficulties, in which higher scores indicate greater difficulties.

Analysis

All analyses were conducted using the survey procedures in SAS software (version 9.4, SAS Institute, Cary, NC, 2008) to account for clustering and weighting of the data. Accounting for clustering of data is necessary to correct for the likelihood that students within schools may be more similar than students between schools. The researchers derived prevalence estimates using bivariate analyses to examine simple associations between the variables of interest. Multiple regression models were conducted to determine the relationship between the frequency of family meals and indicators of mental health, with age, sex, ethnicity, small-area deprivation, and household poverty entered as covariates in the regression models. A second set of regression models was conducted to determine whether the addition of family connection as a covariate affected the relationships between family meals and mental health indicators. A third set of regression models was tested to determine whether sex moderated the associations between frequency of family meals and mental health indicators, by including an interaction variable (sex × family meal) in the models. Associations were considered to be statistically significant at $P < .05$ or where