Research Article

Perceived Social Support From Friends and Parents for Eating Behavior and Diet Quality Among Low-Income, Urban, Minority Youth

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ABSTRACT

Objective: Evidence of associations between social support and dietary intake among adolescents is mixed. This study examines relationships between social support for healthy and unhealthy eating from friends and parents, and associations with diet quality.

Design: Cross-sectional analysis of survey data.

Setting: Baltimore, MD.

Participants: 296 youth aged 9–15 years, 53% female, 91% African American, participating in the *B'More Healthy Communities for Kids* study.

Main Outcome Measure(s): Primary dependent variable: diet quality measured using Healthy Eating Index 2010 (HEI) overall score, calculated from the Block Kids Food Frequency Questionnaire. Independent variables: Social support from parents and friends for healthy eating (4 questions analyzed as a scale) and unhealthy eating (3 questions analyzed individually), age, gender, race, and household income, reported via questionnaire.

Analysis: Adjusted multiple linear regressions (α, $P < .05$).

Results: Friend and parent support for healthy eating did not have statistically significant relationships with overall HEI scores. Youth who reported their parents offering high-fat foods or sweets more frequently had lower overall HEI scores ($\beta = -1.65$; SE = 0.52; 95% confidence interval, −2.66 to −0.63).

Conclusions and Implications: These results are novel and demonstrate the need for additional studies examining support for unhealthy eating. These preliminary findings may be relevant to researchers as they develop family-based nutrition interventions.

Key Words: social support, diet quality, healthy eating, unhealthy eating, eating behavior (*J Nutr Educ Behav*. 2016;■:1-7.)

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INTRODUCTION

Adolescents often fall short of recommended dietary intakes, consuming diets high in sweetened beverages and fast food and low in fruits and vegetables (FV).[1-4] This is particularly problematic among low-income and racial and ethnic minority youth,[5] who are disproportionately affected by obesity and other nutrition-related chronic diseases.[6-8] Social cognitive and social support theories suggest that psychosocial factors such as social support from friends and parents can influence health behaviors.[9,10] Social support is defined by Heaney and Israel[9] as "aid and assistance [for health behaviors] exchanged through social relationships and interpersonal transactions." Studies among adults have found beneficial relationships between social support and health-related indicators including FV intake,[11] weight management,[12] and physical activity.[13]

The relationship between social support and diet-related health outcomes among adolescents has been studied far less than in adults. The few studies on adolescent social support report inconsistent findings.[14] Most adolescent social support studies to date have examined the relationship between social support for healthy eating from youths' parents and/or friends and FV intake.[15-18] Most of these studies have found that parental support is associated

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with increased FV intake[15,16,18]; however, 1 study among adolescents in California found that these relationships differ by gender and age, with the relationships strongest among girls and older youth.[15] Another study among low–socioeconomic status Australian youth found no significant relationship between parent support and FV intake,[17] and instead found a positive relationship between friend support for healthy eating and FV intake among boys.[17] When examining fat intake as the primary outcome, 2 studies found no relationship between parent support for healthy eating and fat intake,[15,19] and 1 of these studies conducted in racially diverse rural youth found the unexpected result of a positive association between friend support for healthy eating and fat intake.[19] Taken together, these results indicate that the relationships between social support and components of dietary intake among adolescents are mixed and need further investigation before conclusions can be drawn.

Traditional definitions indicate that social support is always intended to be supportive of the health behavior of interest[9]; however, adolescents may be receiving messages from their friends and parents that support unhealthy consumption. To date, only 1 study has examined the relationship between dietary intake and social support for both healthy and unhealthy eating as multidimensional constructs.[20] This study was conducted in middle- to upper-class Irish adolescents and found that higher friend support for unhealthy eating was associated with an unhealthy diet.[20] The dearth of evidence regarding social support for unhealthy eating, combined with the mixed results of previous studies, indicates a need for additional examination. This study contributes to the literature by addressing the following research questions in a unique, high-risk population of urban, low-income African American youth:

- How frequently do urban African American youth perceive that their parents and friends provide support for healthy and unhealthy eating behaviors?
- What are the relationships between perceived friend and parent support for healthy eating and unhealthy eating behaviors and diet quality among urban, low-income African American youth?

Based on social cognitive and social support theories[9,21] and the literature, the research team hypothesized that adolescents who perceive higher levels of behaviors that support unhealthy eating from parents and friends will have poorer diet quality, and that adolescents who perceive higher levels of social support for healthy eating from parents and friends will have better diet quality.

METHODS

Study Design and Sample

This was a cross-sectional analysis using baseline data collected in the *B'More Healthy Communities for Kids* study (BHCK), an obesity prevention intervention in Baltimore, MD.[22] Eligibility criteria for this study included living in a neighborhood participating in BHCK (low-income, African American food desert neighborhoods), being aged 9–15 years, and having a parent or guardian who was willing to provide consent for youth to participate.

Participants were randomly selected through a process of creating a sampling frame for each neighborhood, and then by randomly selecting participants within each sampling frame.[22] A total of 296 participants met the eligibility requirements and completed the baseline assessment.

Data Collection and Instruments

Data collection. Trained data collectors collected all data via in-person interviews between June, 2013 and June, 2014. Household income data were self-reported by the participant's adult caregiver. Caregivers and youth provided consent/assent before each interview. Interviews took approximately 60 minutes to complete, and youth received $30 in gift cards for participation. This study was approved by the Johns Hopkins Bloomberg School of Public Health Institutional Review Board.

Instruments. Data from youth were collected by trained data collectors on 2 instruments: the Block Kids 2004 Food Frequency Questionnaire (FFQ) and a Child Impact Questionnaire (CIQ). The Block Kids FFQ is a validated semiquantitative FFQ that asks about frequency and amount of consumption of 77 food items based on National Health and Nutrition Examination Survey 1998–2002 data.[23-25] The CIQ[22] is a 79-item questionnaire that measured the demographic, anthropometric, and social support data used in this analysis.

Most demographic data used in the analyses (age, gender, and race) were collected via youth self-report. Anthropometric data (height and weight) were measured and body mass index–for–age percentiles were calculated using standard procedures.[26]

The researchers collected social support data from the youth via the CIQ using a 14-item social support questionnaire developed by Fitzgerald and colleagues,[20] which is the only scale to date that assesses support for both healthy and unhealthy eating. Fitzgerald and colleagues[20] developed this scale by adapting the Diet-Specific Social Support Scale for Adolescents,[19] which was taken from the diet-specific social support measure for adults by Sallis et al.[27] The social support questionnaire used 4 sets of questions to measure 4 different aspects of social support: support from friends for healthy and unhealthy eating, and support from parents for healthy and unhealthy eating. The questionnaire asked participants to report how often their friend or parent performed a certain task (ie, offered them high-fat foods or sweets) that supported healthy or unhealthy eating. Similar to the previous study using this questionnaire,[20] data collectors provided examples of high-fat foods or sweets to youth for clarification of terms but did not provide a specific period in which participants needed to frame their responses. Participants could respond to each question using 5-point Likert responses (ranging from never = 0 to very often = 4). Responses were summed for the sets of questions related to each of the 4 constructs to generate scales for each construct; however, the scales were later assessed and only select scales were retained for use in these analyses owing to potential issues with internal consistency. Before the BHCK intervention was implemented, the social support for healthy and unhealthy eating