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A Cross-Sectional Study of Early Childhood Educators' Childhood and Current Food Insecurity and Dietary Intake

Taren M. Swindle, PhD^a, Wendy L. Ward, PhD^b, Patti Bokony, PhD^c, and Leanne Whiteside-Mansell, EdD^d

^aAssistant Professor, Department of Family and Preventive Medicine, University of Arkansas for Medical Sciences, 4301 W. Markham St, #530, Little Rock, AR 72205-7199; United States of America

^bProfessor, Department of Pediatrics, University of Arkansas for Medical Sciences, 1 Children's Way, Slot #512-21, Little Rock, AR 72202-3591; United States of America

^cAssistant Professor, Department of Family and Preventive Medicine, University of Arkansas for Medical Sciences, 4301 W. Markham St, #530, Little Rock, AR 72205-7199; United States of America

^dProfessor, Department of Family and Preventive Medicine, University of Arkansas for Medical Sciences, 4301 W. Markham St, #530, Little Rock, AR 72205-7199; United States of America

Abstract

In this cross-sectional study, ECEs ($N=307$) completed an 18-item survey regarding their role (lead vs. assistant), Education level, Program Type, and Current and Childhood Food Insecurity (FI) and Dietary Intake. ECEs in this study reported poor dietary quality and a high rate of FI. Approximately one quarter of ECEs ate fruits and vegetables more than once per day. Of participating ECEs, 34.5% indicated Current FI and 28.7% reported experiencing FI in Childhood. Differences in prevalence of Current FI were found for ECE role, Program Type, and Education (all $p < .03$). Regression models with Childhood Dietary Intake, Childhood FI, Education, and Program Type as predictors accounted for a significant portion of variance in Current Dietary outcomes. In both models, Childhood Dietary Intake was uniquely predictive ($p < .001$) although Program Type was not. Future training and education efforts for ECEs should consider including specific resources to assess and reduce ECE FI and provide practical support for healthy eating on a budget. Additional research is needed to determine the impact of ECE FI on a variety of educator and child outcomes.

Keywords

Food Insecurity; Early Childhood Educators; Head Start; Modeling; Nutrition

INTRODUCTION

Early Childhood Educators (ECEs) are in an influential position to promote healthy attitudes and behaviors for the children in their care. ECEs can offer healthy foods, role model trying new foods, cue children to the signals of hunger and fullness, and create a supportive mealtime atmosphere.¹⁻⁴ Additional effective role modeling and feeding practices that support healthy dietary intake for children include enthusiastic modeling, involving children in meal preparation, and appropriately encouraging trying of new foods.⁵⁻⁶ Given that children may consume more than half of their meals per day in the childcare setting,⁷ practices of ECEs have the potential for substantial impact for children.

However, the research to date suggests ECE food-related behaviors are often counter to optimal practices.⁸ Instead, educator behaviors often include the use of food as reward, rushed mealtimes, and an aversion to consume food children are served.⁸ Studies have demonstrated that ECEs pressure children to eat 20 or more times per meal, on average, and focus on increasing consumption within the time limits of the meal.^{9,10} Pressuring children to eat includes practices such as firm verbal commands (e.g., 'Make a happy plate.') that do not support children to consider their internal cues of hunger and satiety. In fact, ECEs are significantly more likely to use such an external cue compared to more appropriate internally-focused cues (e.g., Are you still hungry?).¹¹ Pressuring children to eat and using other controlling feeding practices (e.g., restricting access to foods) contribute to reduced dietary quality, increased neophobia,¹² less liking and consumption of food served,¹³ and later disordered eating.¹⁴

Few studies have explored the factors that contribute to variability in ECE feeding practices. Two exceptions are notable. Feedman and Alvarez¹⁵ found that ethnicity, education level, and type of agency (center-based versus family-based) were significant predictors of reported mealtime practices including eating with the children and allowing the children to eat less than the ECE believed they should. Specifically, Hispanic ECEs, ECEs with less education, and ECEs in family-based agencies were less likely to engage in best practice. Dev and colleagues¹⁶ found that Head Start providers were more likely to model healthy eating and teach children about nutrition than providers in programs that were not Head Start. In the same study, ECE race, perception of the importance of nutrition for themselves, and desire to lose weight were also related to report feeding practices.

Bandura's Social Cognitive Theory (SCT)¹⁷ provides an overarching framework to consider how environmental and personal factors may influence ECE mealtime behaviors and feeding practices (See Figure 1). Before observational studies examine the predictive power of ECE environmental and personal factors on classroom behaviors, foundational research is needed to document aspects of these constructs for educators and the relationships between environmental and personal factors. Thus, this study, while not fully comprehensive, focuses on a few potentially meaningful and understudied determinants of ECE behavior.

Environmental Factors

Many ECEs come from low-income families¹⁸ and work in a field that receives average salaries of \$21,110 a year,¹⁹ a salary only slightly higher than the federal poverty guideline

of 18,530 for a family of three.²⁰ As a result, ECE may have negative dietary experiences related to the experience of poverty at present or in their past (e.g., food insecurity, poor diet quality). However, no studies to date have investigated the prevalence of educators' (childhood or current) food insecurity (FI). FI, insufficient foods for a healthy, active lifestyle, impacts approximately 15 % of the US population.²¹ This rate is a much higher (34.5%) among families affected by poverty.²¹ Among low-income mothers, childhood experiences of food insecurity have been linked with overweight, binge eating, and food aversions in adulthood.²² Further, mothers' childhood experiences impacted their parenting practices such that mothers adopted feeding strategies perceived to protect their own children from food insecurity. It is unclear how experiences of childhood FI and quality of childhood diet intake may impact ECEs although similar processes may be observed. Previous research has documented that ECEs also have concerns about child food insecurity and may adapt their feeding strategies to address it.²³

As highlighted by both Freedman and Alvarez¹⁵ and Dev and colleagues¹⁶, the type of early childcare program may be an influential environmental factor for educator mealtime behaviors. Differences in center policies and² variable staff training opportunities^{24, 25} may support or undermine ECEs' use of best practice. For example, Head Start has performance standards that require ECEs be served the same menu as the children (45 CFR 1304.23 vii4). Further, The Child and Adult Care Food Program (CACFP) standards for serving nutritious meals and snacks are followed by Head Starts and other licensed childcare facilities. These standards have been linked to increased milk and vegetable consumption for children.²⁶ Feasibly then, the meals at the childcare center could impact the quality of ECEs' diet and their food security status. However, Head Starts are the only program type in the US that specifically and consistently provide a meal and snack to ECEs each day. We are not aware of any previous studies which explored the differences in dietary intake and FI status of ECEs by program type.

Personal Factors

Several studies has documented a relation between parents' diets and children's diets (See Larsen et al²⁷ for a review). Similarly, parental diet is related to their feeding and role modeling behaviors.²⁷ As highlighted in previously mentioned research,¹⁻⁶ the diets of ECEs may be impactful for children in a similar way. This is concerning given data from Sharma and colleagues²⁸ which demonstrated the poor dietary quality of Head Start educators including low consumption of fruits and vegetables and high consumption of soda, fried meat, and French fries. ECEs in this study also expressed low levels of nutrition knowledge and confusion about the nutrition information to trust. Only 9% of ECEs reported they had healthy nutrition habits. These data suggest that even if centers serve healthy foods, ECEs may not eat them. That is, dietary preferences and food attitudes may inhibit their intake and ability to effectively role model intake. Thus, factors associated with educator diet should be explored.

This study seeks to address the following research questions (RQs): 1) What is the prevalence of food insecurity among ECEs, both currently and in childhood?; 2) What demographic characteristics of ECEs are linked to current food insecurity?; and 3) What are

ECEs' dietary intake of healthy and unhealthy foods currently and in childhood? These three questions are exploratory in nature and seek to expand our understanding of these personal and environmental factors for ECEs. Finally, we will test predictive models (RQ 4) to determine the association between ECEs' personal and environmental factors (IVs) and their current dietary intake (DVs). Based on SCT and previous studies, we expect that childhood FI, childhood dietary intake, and program type will be significantly related to current ECE diet beyond the effects of education.

METHODS

Study Design

Institutional Review Board approval was acquired from [Blinded for Review]. The study was designed to obtain a large sample using two key strategies: convenience sample through surveys at a state-level Head Start conference and a purposive sample of state-wide, on-location survey of licensed childcare centers. Recruitment strategies at the conferences were twofold. First, two Research Assistants (RAs) remained at a stationary booth and invited educators passing by to complete the survey. Second, RAs floated amongst conference activities (e.g., exhibit halls, session dismissals) to invite educators to participate. The 5-minute survey was loaded onto mobile tablets to facilitate convenient participation in the conference setting. ECEs indicating a preference to complete the survey on paper were provided with that option. ECEs completed the survey independently but were invited to request assistance as needed (e.g., question clarification, electronic survey advancement). Participants selected a notebook or ink pen as an incentive. All attendees were invited to participate; however, only those indicating they were a lead or assistant teacher on the survey were retained for these analyses.

For recruitment of on-location surveys, a database of all licensed childcare programs (centers and family childcare homes) was obtained from the state childcare licensing agency. Programs were purposively selected in 32 of 75 counties to represent a mixture of urban and rural, more and less affluent areas (i.e., median county income), program size, and subsidized and non-subsidized childcare programs. That is, the sample represents an intentional mix of program types and geographic regions and is not a true random sample.

Programs were classified by size according to the number of classrooms: small (1–3 classrooms), medium (4–15 classrooms) and large (16–20 classrooms). Subsidized childcare programs included Head Start, a federally funded two-generation early childhood education program for children from families with incomes below the federal poverty level, and state funded preschool programs for low-income families. Non-subsidized childcare programs were private, for-profit and faith-based childcare centers, primarily funded by parent tuition. In this state, there are 1,948 licensed childcare facilities and 449 licensed family childcare homes. Of these, Head Start has 21 programs (195 centers), and there are 425 state-funded centers. The remaining centers are private. After grouping centers based on these characteristics, selections were made randomly among similar centers.

Using these criteria, a listing of 99 centers was compiled. Trained research assistants (RAs) contacted administrators to invite participation and, if willing, arrange an optimal time for

data collection. Fifty-nine (40%) of the 99 centers contacted agreed to participate. Programs that declined most frequently cited lack of time to discuss the study and/or lack of time for staff to participate. When administration at the site agreed to participate, on-location meetings were scheduled at the centers and surveys were distributed to lead and assistant teachers only. Often, meetings were held during teacher break times or after school in a resource room or available classroom. The surveys were completed with pencil and paper at the center locations. RAs remained on site throughout the survey period, answered ECE questions, reviewed the surveys for missing information, and collected them upon completion. Incentives included a one dollar collectable coin.

Participants

A total of 307 ECEs completed the surveys across recruitment approaches. Nearly half of surveys were completed with ECEs from state-funded childcare (47.9%); 36.5% were from Head Start educators; and 15.6% were from ECEs in private daycare. At on-location sites (n=282), full participation of staff was attained at each site. Participation was voluntary and anonymous. At the conference assessment (n=25), all ECEs passing the data collection locations at the conference were asked to complete the survey. When ECEs declined to participate, the most often cited reason was time constraints. The concurrent recruitment approaches reached ECEs from every geographic quadrant of the state. There are approximately 3,100 ECEs teaching in Head Start and state-funded classrooms in this state. Thus, the sample in this study represents approximately 3.5% of the population of ECEs in the state.

Measure

ECEs completed an 18-item survey regarding their Current and Childhood Food Insecurity (FI) and Current and Childhood Dietary Intake. Key demographic characteristics were assessed including: ECE role (i.e., assistant, lead, and director), level of education (i.e., High school/GED, Child Development Associate, Associates degree, Bachelor's degree or higher), agency (i.e., Head Start, state-funded, private), and age range. The survey was at a 5.7 Flesch-Kincaid reading level.

Food Insecurity—FI was assessed with two questions from the Household Food Security Survey (HFSSM).²⁹ Two-item 29 of FI, including the items selected for this survey, have demonstrated appropriate levels of sensitivity and specificity as well as convergent validity in previous studies.^{30, 31} Teachers indicated agreement with (a) “The food that you bought just didn’t last and you didn’t have money to get more,” and (b) “You or others in your household cut the size of your meals or skipped meals because there wasn’t enough money for food.” The time frame in the question stem was “Thinking over the past year...” for current FI and “Thinking about when you were five years old...” for retrospective reports of FI. All FI questions were rated on a 1 (*Never True*) to 3 (*Often True*) scale. A response of 2 or greater on either item received a designation of Food Insecure (FI). Internal consistency (i.e., Cronbach’s alpha) for the two-items was .76 for current reports and .90 for retrospective reports.

Dietary Intake—ECEs completed 5 questions drawn from the Family Map Inventories (FMI).³² ECE indicated the frequency with which they currently consume: (a) dark green or orange/yellow vegetables, (b) fruits, (c) sugary sweets like cake and candy, (d) sugary drinks like soda and fruit drinks, and (e) junk foods like chips, dips, and fast food on a scale of 1 (*none*) to 5 (*more than one per day*). The FMI is an instrument designed to assess strengths and needs of families served by childcare or home visiting programs in a range of areas empirically linked to long-term health and wellbeing.³² Reported test-retest reliabilities on the dietary items were 68%, on average.³² Given that ECEs are often similar to the families they serve,¹⁸ items are expected to behave similarly in this sample. To provide a proximal assessment of childhood dietary experiences, respondents designated their agreement with statements indicating intake of the same food categories when they were five years old (e.g., “Most days I ate three cups of vegetables,” “Most days I ate sugary sweets.”) on a scale of 1 (*Strongly Disagree*) to 4 (*Strongly Agree*).

Statistical Analyses

Data were downloaded (tablet surveys) or scanned (paper surveys) using Remark Web Survey and Remark OMR templates and imported into SPSS for statistical analyses. Based on existing scoring recommendations³⁰ ECE were assigned as Food Insecure when a response of 2 (*Sometimes True*) or 3 (*Often True*) on either item was given. Composite scores were created for intake of healthy (i.e., vegetables, fruits) and unhealthy items (i.e., sugary sweets, sugary drinks, junk foods) by averaging responses in these two sets. See Table 1 for means, standard deviations, and ranges of composite scores. Composite scores are the convention to assess for risk on the FMI.³² Further, composites appear to be a reliable and valid way to give an overall picture of dietary quality.³³ FI status and Dietary Intake scores were created for both current intake and retrospective report of intake. Educators were required to have answered 75% of the items in each set to receive a composite score.

Outcomes in this study (dependent variables) are those that represent current FI and current Dietary Intake. Descriptive statistics were calculated to document FI rates and Dietary Intake patterns (RQ 1 and 3). Given that current FI status is a categorical outcome, chi-square tests examined demographic differences in current FI to address RQ 2. Separate regression analyses was employed to predict (1) current intake of healthy foods and (2) current intake of unhealthy foods with program type, education level, past intake, and past FI status as predictors (RQ 4). Program type was dummy coded with state-funded programs as the referent group.

To test regression assumptions, preliminary analyses verified the linearity of relationships between continuous variables. Variance Inflation Factors (VIF, maximum = 1.45) and Tolerance values (minimum = .69) for regression analyses did not indicate a problem with multicollinearity. Multivariate normality was verified by non-significant Kolmogorov – Smirnov tests ($p = .07$ and $p = .20$) and examination of the histogram of residual values for a normal distribution for both regression models. Durbin-Watson values (2.01, 2.03) indicated independence of residuals for the regression models. Finally, examination of the scatterplots of standardized residuals by predicted values indicated homoscedasticity for both regression

models. Given that less than 2% of cases were missing data on variables of interest, available cases with all information were included (i.e., listwise deletion) and analyzed using SPSS Version 21. Significance was determined for all analyses at $p < .05$.

RESULTS

Prevalence of ECE Food Insecurity

The professional roles, institution type, age, and education of the staff surveyed are included in Table 2 by FI status. Of participating ECEs, 34.5% indicated current FI and 28.7% reported experiencing FI at 5 years old. Descriptive statistics detailing childhood and current FI experiences and dietary patterns are presented in Table 2.

Demographics and Current ECE Food Insecurity

Demographic differences in FI were noted in the areas of ECE role, type of center, and education level, but not age (Table 1). ECE indicating FI were significantly more likely to be assistants [$\chi^2(1, N=307) = 7.38, p = .02$], significantly less likely to work at state-funded agencies [$\chi^2(1, N=307) = 7.32, p = .03$], and significantly less likely to have more than 4 years of higher education [$\chi^2(1, N=307) = 11.99, p = .02$].

ECEs' Dietary Intake

Approximately half of ECEs reported that they ate the recommended servings of fruits and vegetables on most days at age 5 (59.0% and 54.4%, respectively). Slightly fewer indicated eating unhealthy foods on most days at age 5, ranging from 37.7% to 43.1%. Current dietary intake indicated that approximately one quarter of ECEs eat fruits and vegetables more than once per day. Further, between 24% and 36% of ECEs indicated daily or more frequent intake of unhealthy foods. See Table 3.

Predictors of Current Dietary Intake

Healthy Food Intake—The model predicted a significant portion of variance in healthy food intake, $R^2 = .08, F(6, 297) = 4.17, p < .001$. Recollection of eating healthy foods as a child was a uniquely significant predictor and was related to significantly greater reported current intake of healthy foods [$\beta = .25, t(303) = 4.04, p < .001$]. Food insecurity at age 5 was a marginally significant predictor [$\beta = .12, t(303) = 1.92, p = .06$].

Unhealthy Food Intake—The full model accounted for a significant portion of variance in unhealthy food intake, $R^2 = .17, F(6, 297) = 9.78, p < .001$. Childhood intake of unhealthy food [$\beta = .37, t(303) = 6.79, p < .001$] and educational level [$\beta = -.14, t(303) = -2.21, p = .03$] were uniquely significant predictors. Recollection of eating unhealthy foods as a child, the strongest predictor, was related to significantly greater reported current intake of unhealthy foods; increased education was related to less unhealthy food intake. See Table 4 for a summary of both regression models.

DISCUSSION

This study is the first to directly investigate food insecurity (current or childhood) in ECEs. Results suggest that ECEs experience FI at rates higher than national average but similar to that of families impacted by poverty.²¹ This is consistent with a survey of 600 ECEs in which over half of respondents indicated substantial economic worries for their family.³⁴ Findings suggest that ECE FI is even higher among assistant teachers (44.6%) and among ECEs with education at the level of High school diploma, GED, or CDA (45%). Notably, educators at private day cares experience the highest FI (45.8%) across agency types, but ECEs in Head Starts were impacted at a rate 12% higher than state-funded ECEs. This is surprising given that Head Start policy is more prescriptive for requiring and providing opportunities for ECEs to eat with children. However, Head Start educators make \$15,130 less on average annually than ECEs in school-based, state-funded programs in this state.³⁵ Salary differences between the groups may explain the difference in FI rates.

The dietary profiles of ECEs in this study are similar to those collected by Sharma and colleagues²⁸ who found that only 34.4% and 28.9% of educators ate more than one vegetable or fruit (respectively) over the previous day and had frequent intake of unhealthy foods. These intake patterns are not aligned with current recommendations³⁶ which raises concerns about the health and nutrition of ECEs'. Given the potential for the childcare setting to aid in obesity prevention,^{8, 24, 37} further examination is warranted to determine the relationship between overall dietary intake of ECEs and intake at center meals, mealtime role modeling, and feeding behaviors. These factors are important given that enthusiastic modeling of intake is needed to influence child intake.⁵ Thus, future research should examine explicitly this potential link between ECE past and current FI, ECE past and current eating patterns, ECE responses to children in eating situations, and feeding practices in the classroom. Understanding factors that influence ECEs' modeling behaviors is warranted to inform strategies for prevention and intervention with ECEs.

Overall, the results of this study are partially consistent with our theoretical model in that some, but not all, environmental factors were predictive of the personal factors of current dietary intake. In this study, recollection of childhood intake was most strongly related to current dietary intake to of the same foods. These findings are consistent with previous research that shows eating patterns established in early childhood continue into adulthood and highlight the influence of ECEs' early experiences.³⁸ Contrary to our proposed model and previous related research,^{15, 16} program type was not influential in predicting current ECE intake. This suggests that differences in program policy (e.g., serving meals to educators at Head Start) were not successful at improving diet quality for educators.

Limitations

While the sample represents a variety of ECE settings, generalizability is limited due to the non-representative sample of this study in one only one state. Future research should investigate ECE FI nationally and document rates by ECE ethnicity. Another limitation is that we did not measure CACFP participation or other mealtime rules and policies directly. Rather, we used program type as a proximal indicator of likely differences in mealtime

structure. Future studies should assess mealtime policies directly to further examine the impact of childcare meals on ECEs.

In addition, the validity of retrospective reporting has been debated for some time.³⁹ One example, the ACEs study (Adverse Childhood Experiences), has received significant attention for both their use of this method and their robust findings in predicting adult health and psychosocial outcomes from retrospective reports of childhood events.^{40–45} Studies on the validity of the ACEs methods have shown that while retrospective methods may be prone to some measurement error, retrospective reports are stable over time (i.e., reliable)⁴⁶ and not likely to result in exaggerations of major adversities.^{47,48} In another study involving adult recall of childhood dietary intake, the recollections appeared reliable and valid based on significant correlations with other family members' recollections of their childhood eating and the fact that childhood eating patterns were positively correlated with current liking of certain foods.⁴⁹ Most importantly, a teacher's recollection in this context would be the experiential reality she brings to current interactions. That is, if she recalls eating unhealthy foods in childhood, this will be the social norm she brings to interactions with the children in her classroom.

Implications for Research, Education, and Practice

High rates of FI among ECEs is a critical finding with clear policy implications. ECEs “make less than adults who take care of animals, and barely more than fast food cooks” despite earning degrees in their field.³⁴ The low wages of this profession may not be attracting the best, most qualified applicants, which may have an impact on the quality of early childhood education and the high rate of turnover in the childcare field.⁵⁰ Policy makers should take note of the results of this study, particularly the difference in food insecurity rates among providers of different salary levels.

Knowing more about ECE nutrition experiences helps us understand the context of ECEs' feeding and modeling behaviors. Training and education efforts for ECEs should consider including specific resources to assess and reduce ECE FI and provide practical support for healthy eating on a budget. Future research should investigate the impact of ECE FI on a variety of teacher and student outcomes. An investigation of the broader impact of ECE FI and poor diet on specific teaching skills and teacher behaviors (not related to food) in the classroom is needed. Finally, qualitative research exploring ECEs' perception of their early childhood life experiences and the impact of those experiences on their current eating and role modeling behavior would provide additional depth on this topic.

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Figure 1. Social Cognitive Theory: Framework for Determinants of ECE Behaviors

*Food Insecurity and Childhood Dietary Intake are conceptualized as environmental factors as it is presumed to be outside the control of the individual.

Table 1

Means, Standard Deviation, and Range for Composite Scores

Variable	Mean	SD	Observed Range
Childhood Healthy Food Intake	2.64	0.74	1 – 4
Childhood Unhealthy Food Intake	2.27	0.69	1 – 4
Current Healthy Food Intake	3.69	0.89	1 – 5
Current Unhealthy Food Intake	2.91	0.91	1 – 5

Table 2

Demographic Characteristics of ECE by Current FI Status

Characteristic	Total		Food Secure (N=201)		Food Insecure (N=106)		Analysis		
	%	n	%	n	%	n	<i>X</i>	<i>df</i>	<i>p</i>
<i>Role</i>									
Administrator	10.7	20	62.5	12	37.5				
Assistant	35.2	56	55.4	45	44.6				
Lead	54.1	125	71.8	49	28.2		7.34	2	.02
<i>Age</i>									
Less than 25	8.6	16	64.0	9	36.0				
25–35	34.6	66	65.3	35	34.7				
35–45	29.1	57	67.1	28	32.9				
45 +	27.7	52	64.1	29	35.8		0.18	3	.98
<i>Education</i>									
High School/GED	13.7	23	54.8	19	45.2				
Child Development Associate	14.3	24	54.5	20	45.5				
Associates Degree	19.5	37	61.7	23	38.3				
Bachelor's Degree	31.6	65	67.0	32	33.0				
More than 4 years	20.8	52	81.3	12	18.8		11.99	4	.02
<i>Agency</i>									
Head Start	36.5	68	60.7	44	39.3				
State-Funded	47.9	107	72.7	40	27.2				
Private Daycare	15.6	26	54.2	22	45.8		7.32	2	.03

Table 3

ECE Childhood and Current Food Insecurity and Dietary Intake Percentages* (N=307)

	Childhood % (at age 5)	Current %
Food Insecure	28.7	34.5
Fruit	59.0	27.9
Vegetables	54.4	23.6
Sugary Sweets	43.1	33.9
Sugary Drinks	37.7	35.7
Junk Food	38.2	24.0

* Childhood Dietary Intake represents those marking *Agree* or *Strongly Agree* on “Most days I ate...” items. Current Dietary Intake represents those indicating consumption of *More than once per day* for Fruit and Vegetables and *Once a day* or more for unhealthy foods in response to “About how often do you eat or drink from each of the following groups?”

Table 4

Regression Analyses Predicting Current Food Intake

Variable	Healthy Intake			Unhealthy Intake		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Education	.04	.04	.05	.10	.04	-.14*
Head Start	-.08	.12	-.05	.07	.11	.04
Private Daycare	-.20	.17	-.08	-.07	.16	-.03
Childhood Healthy Food Intake	.30	.07	.25**	.03	.07	.03
Childhood Unhealthy Food Intake	-.08	.07	-.06	.49	.07	.37**
Childhood FI (0 = Food Secure, 1 = FI)	.24	.12	.12	-.07	.12	-.03
<i>R</i> ²	.08**			.17**		

* $p < .05$;** $p < .01$.