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Table Talk: Development of an Observational Tool to Assess Verbal Feeding Communications in Early Care and Education Settings

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Abstract

Objective: Children's dietary intake impacts weight status and a range of short and long-term health outcomes. Accurate measurement of factors that influence children's diet is critical to the development and evaluation of interventions designed to improve children's diets. The purpose of this paper is to present the development of the Table Talk observational tool to measure Early Care and Education Teachers (ECETs) verbal feeding communications.

Design: An observational tool to assess ECET verbal communication at mealtime was deigned based on the extant literature. Trained observers conducted observations using the tool during lunch for both Lead and Assistant ECETs. Descriptive statistics, test-retest for a subgroup, interclass correlations for each item, and comparisons between Leads and Assistants were conducted.

Setting: Head Start centers

Subjects: 75 Head Start educators

Results: On average, 17.2 total verbal feeding communications ($SD = 8.9$) were observed per ECET. For Lead ECETs, the most prevalent Supportive Comment was Exploring Foods whereas for Assistants Making Positive Comments was the most prevalent. Overall, Lead ECETs enacted more Supportive Comments than Assistant ECETs, $F(2, 72) = 4.8$, $p = .03$. The most common Unsupportive Comment was Pressuring to Eat, with a mean of 3.8 ($SD = 4.3$) and a maximum of 25. There was no difference in Unsupportive Comments between Lead and Assistant ECETs.

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Conclusions: Table Talk may be a useful tool to assess ECETs' verbal feeding communications with potential applications such as informing ECET training and assessing intervention efforts.

Introduction

The impact of parent feeding practices on children has been studied widely. Restrictive practices are related to increased eating and weight among children[1] while pressure to eat and emotional feeding are related to overeating and emotional eating in children.[2] Positive effects also are observed, including increased fruit and vegetable (FV) consumption within homes where authoritative, supportive feeding practices are used (e.g., modeling intake, making FV available).[3] Parents, however, are not the only influence on children's development of food-related behaviors and preferences. Outside of the home environment, childcare is often the first influence on children's eating.

The impact of early care and education teachers (ECETs) feeding practices and feeding communications on child outcomes has been researched to a lesser extent than that of parents. While descriptive studies have begun to document ECET feeding interactions,[4–6] the direct link between these interactions and child outcomes is emerging. A review by Wolfenden and colleagues[7] of available trials designed to increase FV intake in early childhood found that a preschool-based intervention resulted in significant increases in fruit consumption for children, whereas home visiting interventions did not have observable impacts. This demonstrates the potential impact of the ECET context and suggests a need to understand the mechanisms that contribute to change in child nutritional outcomes (e.g., dietary variety, neophobia, willingness to try) through early intervention and the interactions with the adults in early care and education settings.

Considering the gap between the potential for ECET to impact children and what is known about the influence of ECET feeding practices on children, additional information on ECET feeding interactions is needed. ECETs may eat up to 3 meals or snacks with children per day, which is more than 500 meals in a school year. For the most at-risk children, meals in the early education setting may represent most, if not all, of their daily dietary intake.[8] As early childhood is a sensitive time for establishing self-regulation and dietary preferences,[9] ECETs are in an important position to create a responsive feeding environment that will support healthy habits for children.

Recognizing the importance of ECETs in child feeding, Mita et al[10] presented a conceptual framework of characteristics of a positive meal environment (PME). A PME is conceptualized to consist of opportunities for learning, socializing, and eating with focus on the people, emotional tone, and rules/routines involved in meals. Mita's model, consistent with the existing literature and recommendations from the American Academy of Nutrition and Dietetics,[11] provides a strong basis for observational study to quantify PME characteristics such as verbal feeding communications. Extending upon Mita's model, the absence of PME characteristics and the addition of undesirable interactions would relate to a negative mealtime experience (NME), a feeding environment that is not nurturing for healthy habits. Measuring PME and NME characteristics would provide important information on the childcare feeding environment.

Currently, self-report measures are frequently used to assess ECET knowledge, attitudes, and self-efficacy about child nutrition and feeding.[12–15] Validated feeding assessment measures developed for use with parents (e.g., Child Feeding Questionnaire; Caregiver Feeding Style Questionnaire)[16,17] have been used in some educational settings, but efforts to understand the psychometric properties in this group have been limited.[18] One recently developed tool, the 63-item Child-care Food and Activity Practices Questionnaire (CFAPQ),[19] was developed specifically for use with childcare staff. However, validation efforts of the CFAPQ to date have been limited to internal consistency and item correlation estimates. Self-assessment tools of nutrition policy and procedure are available to support programs to evaluate and improve the mealtime environment but do not provide tools to quantify distinct verbal feeding communications initiated by ECETs (e.g., NAPSACC, BMER, EPAO).[20–22]

Despite the progress of observational studies[23–25] to describe the preschool mealtime environment, studies have not used standard instruments to capture the quantity of specific verbal ECET feeding communications in real time. This is a critical gap given that emerging research suggests a lack of correspondence between educator-reported and observed feeding behaviors.[26] To address this gap, the current study presents the development a new observational tool to quantify verbal ECET feeding communications (i.e., supportive and unsupportive comments) consistent with the PME framework, as well as extant literature and recommendations.

Methods

Research Design

Head Start programs serve low-income families (100% of poverty or below) with children birth to age 5 through federal support from the US Administration for Children and Families Early Childhood Learning & Knowledge Center. To represent the child care setting, Head Start agencies in 2 Southern states with a high prevalence of overweight and obesity were enrolled to participate in the implementation and evaluation of a nutrition education and food experience curriculum. All Head Start programs in this sample were full-day programs. The observations detailed in this study represent baseline observations of the classrooms before ECET training and implementation of a nutrition education curriculum. Assessment of ECETs' feeding communications at mealtime was collected as a potential moderating variable of the impact of the curriculum; however, the Table Talk tool was not designed to be specific to the curriculum or training the ECETs received and has wider applicability.

Observations were completed in 3 cohorts across a total of 37 classrooms: (1) 10 classrooms in fall 2013, (2) 12 classrooms in spring 2014, and (3) 15 classrooms in fall 2015. All classrooms in this study served children between the ages of 3 and 5. Of the 37 classrooms, 6 classrooms in Cohort 1 were in an urban area serving families who were a majority African American (72.4%); 16 classrooms in Cohorts 1 and 2 were in rural areas serving families who were a majority White (68.1%); and 15 classrooms (Cohort 3) were in a suburban area serving families who were a majority African American (83.6%). A subsample of ECETs (n = 7 Lead ECETs) was observed twice in spring 2014 within 3 weeks (mean = 1.26 weeks) to assess for test–retest reliability. This study was approved by the Institutional Review Boards of the University of Arkansas for Medical Sciences and

Louisiana Tech University. Educators provided consent for the observations and collection of their demographic information.

Table Talk Development

The Table Talk Tool was developed based on the empirical literature and preliminary mealtime observations. A review of the extant literature was conducted to compile evidence-based practices and recommendations in child feeding and mealtime interactions. Selected targets for the Table Talk observation tool were based on: (a) the benefits of vocal, positive adult role,[6,27,28] (b) the counterproductive impact of pressuring children to eat,[29–32] (c) the value of guiding children to attune to cues of hunger and satiety and valuing children's choice to eat,[11,25,30,32,33] (d) the benefits of appropriate food exploration and encouraging children's interest in foods,[11,30,34–36] (e) the undesirable impacts (i.e., overjustification effect) of coercive feeding practices such as promise of a food to increase intake of another food[37–40] and (f) the advantage of a positive social context at mealtimes.[10,11,41,42] After the first cohort of observations, comments that focused on behavioral control of children (e.g., "turn around," "sit up straight") were added to Table Talk to provide additional measurement of the mealtime climate. Consistent with a PME framework[10] and previous research on punitive and authoritarian interactions in childcare settings,[43] firm, harsh directives and inappropriate transitions or redirections were coded in this category and included in the count of unsupportive behaviors.

Two authors [T.S. and B.D.] led the development of the tool. T.S is trained as a mixed methods researcher with graduate education in child development, educational psychology, and nutrition. B.D. has graduate training is in Applied Communication with a focus on adult learning. Our literature review provided sensitizing concepts (i.e., a start list),[44] for which we observed during our preliminary observations prior to this study. After each preliminary observation we would meet immediately to discuss application of the list during the observations. That is, we made notes of how we coded communications we heard and compared counts for each category. During this process, we engaged in consensus building to define examples of each category, revise our categories, and outline criteria for differentiation between categories. For example, we documented examples of the difference between pressuring children to eat (e.g., "I need to see you take a bite.") and encouraging trying in a positive way (e.g., "What did you notice about the carrots?"). We developed overarching rules to guide distinctions (e.g., "Comments that do not respect a child's choice about how much to eat are pressure."). We continued this process until we demonstrated reliability (> 85% agreement) on three sequential occasions. We used our notes and examples from this process to develop the training materials.

Table Talk was designed to facilitate quick identification of supportive or unsupportive verbal ECET comments (See first column of Table 1 content of the observational tool). Observations recorded on the top portion of the tool are positive (n = 4); observations recorded on the bottom portion of the tool are negative (n = 8). This promotes efficient categorization of verbal ECET comments. Tally marks are used during the observation, and total scores are created for each item by totaling comments after the observation for each ECET.

Observation Training

Observers completed a standardized training consisting of an in-person session with instruction on (a) the intent of each item with provision of examples, (b) distinguishing between categorizations, and (c) discrete integration into the classroom setting. This training included coding a video example with the guidance of a gold-standard observer and then independently. Thereafter, observers completed pilot field observations with the Lead investigators to establish interrater reliability. Interrater reliability was calculated by determining the percentage of items on which observers rated within a narrow margin of error (± 1 for counts ≤ 4, ± 2 for counts > 4) relative to the gold-standard observer. Before observing classrooms independently, each observer was required to exhibit interrater reliability of 85% with 1 of 3 gold-standard observers on 2 occasions. Gold-standard observers exhibited greater than 90% agreement with one another. This level of reliability was obtained within 3 live observations for all observers after video training. Observers (N = 10) included undergraduate students of sociology and child development, graduate-level students in nutrition and psychology, and professionals from education and public health.

Data Collection

In total, 37 classrooms across 8 centers from 3 Head Start agencies were observed at lunch. These classrooms included a total of 75 ECETs—37 Lead ECETs, 37 Assistant ECETs, and 1 family-service coordinator—who regularly ate meals with children. Table 2 presents the demographics of the ECETs observed in this study. Observers arrived 10 minutes prior to the mealtime to select an unobtrusive observation position and to allow children and staff time to adjust to their presence. Observations lasted from the time the food was served to the first child to the time the food was removed from the last child. On average, observations lasted 27.8 minutes (Range = 13–45, SD = 6.9). Observers focused on coding the unique verbal expressions with children as they related to the categories presented in Table 1. That is, if an ECET repeated the same phrase to the same child twice in a row (e.g., “Eat your green beans. Eat your green beans.”), a single comment was recorded. If the ECET interacted with another child (i.e., initiated a different interaction) and returned to the previous child to provide the directive again, another comment was recorded. Directing the same phrase to a different child was considered a unique expression. Expressions were considered pressuring rather than encouraging when the child’s choice of intake was not recognized (e.g., “Try the carrots.” vs. “Would you like to try the carrots with me? I think they’re yummy.”). When meals were served in the classroom (n = 32), 1 observer recorded communications of both Lead and Assistant ECETs. When meals were served in a cafeteria setting (n = 5), 2 observers were assigned to a class; one observer recorded communications of the Lead ECET, and another observer recorded the communications of the Assistant ECET. This allowed for more accurate capturing of verbal ECET communications in the noisier cafeteria environment.

Analyses

Analyses were conducted with IBM Corp Statistical Package for the Social Sciences (SPSS) version 22.0. Test–retest reliability was determined by correlating items of the first and second observations. Summary scores were created for Supportive and Unsupportive

Comments by totaling the number of observed verbal ECET communications within these areas. Means were compared on Table Talk summary scores between Lead and Assistant ECETs using one-way ANOVA analysis, controlling for demographic information. Intraclass-correlation coefficients (ICC) indicate the variance in Table Talk items and summary scores shared between Lead and Assistant ECETs in the same classroom.[45] Thus, ICC reflects how ECET communications in the same classroom co-vary. ICC in this study does not indicate reliability.

Results

Table Talk observations

Table 1 presents a summary of the average number of recorded verbal feeding communications by Lead and Assistant ECETs. For Lead ECET, the most prevalent Supportive Comment was Exploring Foods whereas for Assistants Making Positive Comments was the most prevalent. These were observed 4.1 and 2.3 times per meal, respectively. Lead ECETs consistently had higher Supportive Comment scores than Assistant ECETs, which was reflected by the overall Supportive summary scores (Leads = 10.7; Assistants = 6.7). The least used Supportive Comment by both Lead and Assistant ECETs was Hunger Cues, which was used less than 1 time per meal on average. A significant difference was found between Lead and Assistant ECETs on Supportive Comments [$F(2,72) = 4.8$, $p = .03$] with Lead ECETs providing more supportive comments than Assistants (See Table 3).

The most common Unsupportive Comment was Pressure to Eat. This was the case for both Lead and Assistant ECETs, with observed means of 3.8 times per meal. The maximum number of Pressure to Eat Comments was 25 times in a meal. For a given classroom, children could hear up to 39 directives to eat in one meal from their Lead and Assistant ECET combined. This averages to hearing Pressure to Eat comments more frequently than once per minute. The most uncommon Unsupportive Comments were Negative Comments, Threats, and Food as a Reward. Notably, up to 47 Unsupportive Comments were observed per meal in a given classroom. Combined, ECET were similar in their use of Unsupportive Comment (mean = 8.5) and Supportive Comments (8.7). No differences on Unsupportive Comments were found between Lead and Assistant ECETs (Table 3).

Interclass correlation coefficients indicating shared classroom variance

Interclass correlation coefficients (ICCs) for Supportive Comments examining the shared variance between ECETs in the same classroom ranged from a minimum of 0.1 (Hunger Cues) to a maximum of 0.3 (Positive Comments). ICCs indicating shared variance between Lead and Assistant ECETs for Unsupportive Comments were a minimum of 0.01 and maximum of 0.6 (Discourage Manipulation and Hurries to Finish, respectively). ICCs could not be estimated for 2 items (Hunger Cues and Threats) due to restricted variability in their occurrence. The ICC indicating shared variance within classrooms for overall Supportive Comments was 0.1; the ICC for overall Unsupportive Comments was 0.5.

Test–Retest Reliability

Item-level correlations indicating test–retest reliability ranged from 0.4 (Behavior Control) to 0.9 (Pressure to Eat). The next lowest observed correlation was 0.5 (Positive Comments). All other correlations were greater than 0.6; several were greater than 0.8 (Hurries, Discourage Manipulation, and Exploring Foods). Correlations could not be estimated for 5 items (Hunger Cues, Negative Comments, Threats, Preference for Unhealthy Foods, and Food as a Reward) that were infrequent and constant across time in this sample.

Discussion

The purpose of this study was to develop and assess a new tool for quantifying verbal ECET feeding communications. To that end, we propose a systematic way to measure distinct verbal ECET communications consistent with a PME (i.e., supportive comments) *and* NME (i.e., unsupportive comments).[10] Results suggest that Table Talk has the potential to capture variability in verbal ECET communications. The observed number of Supportive and Unsupportive Comments at a mealtime captured by Table Talk were comparable on average.

Previous reviews on mealtime interactions among ECETs have suggested room for improvement.[4,46] To move toward greater adoption of evidence-based measures, the field may benefit from pragmatic tools to measure aspects of the meal environment such as verbal feeding communications in real time. The results of the current study are consistent with previous studies which highlighted areas for improvement in mealtimes in early childhood care and education settings. This study also offers a simple measure that may be the type of pragmatic measure needed to document and address these deficits. In the current study, Table Talk documented that ECETs pressured children to eat approximately every 7 minutes, with a maximum rate of once every 1.2 minutes. This is greater than the rate reported by Gable and Lutz,[23] which was approximately every 15 minutes, and is consistent with reports from Ramsay and colleagues,[25] who found that ECETs were 10 times more likely to direct children to eat than to provide cues to hunger or satiety. Using Table Talk, the current study also documents the frequency with which ECETs engage in other unsupportive verbal communications that have not been included in previous studies (e.g., Discourage Manipulation).

Use of the Table Talk tool documented differences between ECETs of different roles with Lead ECETs providing more supportive comments than Assistant ECETs. The ability of Table Talk to capture communications of both ECET roles is important as both are typically present and interacting with children during mealtime. Further, analysis of data collected using the Table Talk tool illustrated that a large amount of variance in communications was shared between ECETs in the same classroom (i.e., ICCs), especially for Unsupportive Comments. Potential reasons for this could be shared organizational culture or similar training opportunities. Further, previous studies have documented that physical activity and eating behaviors are predicted by those in individuals' immediate surroundings.[47–49] A similar peer influence could be at work between ECETs in the early childhood classroom, and the Table Talk tool may be a useful way to capture this phenomenon. The cause of the shared variance between Lead and Assistant ECETs in this study are unknown and deserve further exploration.

Some verbal ECET feeding communications included in the Table Talk tool occurred infrequently in this sample. In fact, 7 communications occurred less than 1 time per meal on average. The infrequency of these verbal ECET feeding communications in this sample does not necessarily mean that these communications will be infrequent in other settings, such as state-funded childcare, private childcare, or family childcare homes. Other studies have shown differences in self-reported feeding practices by program type, with Head Start teachers faring better than those in other programs.[50,51] Thus, it is likely that higher rates of these verbal feeding communication behaviors would be seen elsewhere, and these communications should be retained as part of the tool until further work in additional settings is completed.

Table Talk may be a useful for several reasons. First, interrater reliability levels are consistent with NAP SACC,[22] a standard measures in the field and were obtained with a diverse group of observers. High rates were achieved due to the variety of training methods that each observer completed before reliability was measured, including video and field training. Our training methods, topics, and standards were comparable to those used to train NAP SACC observers (e.g., observation techniques, mock observations, 85% reliability with gold standard).[22] This provides indication of the potential feasibility of the instrument for wider use. Second, Table Talk captures observed rather than reported verbal feeding communication behavior, which eliminates self-report bias which may be an issue with measures such as the CFAPQ,[19] BMER,[21] or NAPSACC[20] when a self-assessment is completed. Although observation may impact verbal ECET feeding communications, it is reasonable to expect that it would increase the “correct” communications because of social desirability. Given that unsupportive verbal ECET feeding communications are still observed, there may be other barriers (e.g., lack of knowledge,[15] contextual factors such as training and regulations[50,51], personal dietary factors[15,51,52]) to ECETs being able to consistently use evidence-based feeding communications. Finally, Table Talk may contribute to understanding the predictive power of PME *and* NME for children. By using a tool such as this in connection with collection of health outcomes data for children, researchers may be able to determine how the mealtime environment in early childhood settings can impact health outcomes in children.

There are also limitations to the Table Talk tool. At present, the Table Talk includes more unsupportive communication than supportive communication categories. This reflected the available literature and our pilot observations. Further, we added a category to capture general statements that would capture a harsh mealtime climate (i.e., Behavioral Control) but not a similar category to reflect general statements unrelated to food that would reflect a positive mealtime climate (e.g., What did you do last night at home?”). This should be considered for further development of the tool. However, Table Talk was designed as a live observation tool that has the potential for use as an immediate intervention and that that would require fewer resource demands than coding recorded mealtimes (e.g., staff time, cost of coding software/equipment). This limits the amount of information that can be collected in the real-time observation, and it is expected the tool will have to remain focused to have validity and reliability. As such, the Table Talk tool will never capture the full complexity of teacher-child interactions at mealtime.

Implications for Research and Practice

The current study was restricted to Head Start classrooms in Southern US states. Head Start has specific mealtime regulations which encourage family style dining, emphasize supportive teacher-child interactions, and require compliance with USDA meal patterns.[53] Head Start classrooms may be more accustomed to observation as well. Thus, further efforts are needed to assess generalizability to other settings such as state-funded programs, private childcare, and family childcare homes. Pilot observations by our team suggest utility of the Table Talk tool to capture communications at mealtime in these additional settings but suggest different patterns of ECET communication than in Head Start. Comparisons of ECET verbal communications between center types is a promising area for research which could inform intervention. Additionally, future efforts need to explore the predictive validity of this tool for predicting child outcomes (e.g., intake of healthy foods, willingness to try new foods). A tool shown to predict these outcomes concurrently and/or across time could be valuable to the field.

There are several additional opportunities for future research. First, studies should explored differences in Table Talk scores on ECET characteristics (e.g., level of nutrition training, food security status). In this study, further analyses (e.g., item-level demographic comparisons, correlational analyses) were not conducted due to the restricted range and limited number of observations of some verbal ECET feeding communications. Collection of Table Talk observations across a wider range of settings and demographic groups could allow for these types of analyses. Cultural differences may be reflected in the communications of ECETs as suggested by recent work documenting the influence of family history on ECET's mealtime practices with children in their classrooms.[54] As no standard, self-report measures of feeding communications or behaviors have been validated in ECETs, validation against the CFQ and CFSQ may be useful as well. Finally, pairing of Table Talk with other tools which measure different aspects of the feeding environment (e.g., non-verbal strategies, environmental characteristics) is needed.

Although not documented in this study, Table Talk is designed to be sensitive to change and to capture wide variability in verbal ECET feeding communications. This is an important feature of the measure because it has the potential to eliminate ceiling effects, which may impact other measures in the field,[19–21] particularly those designed to evaluate the impact of interventions. Future studies should assess if the tool is in fact sensitive to change across time. Table Talk can be used to identify individual verbal ECET feeding communications that naturally occur, offering observable, concrete information that can help shape effective interventions. This measure also has potential for local use at early childhood education agencies or on a broader scale to inform intervention. A trained observer could provide a baseline assessment of how ECETs in a given setting relate to supportive and unsupportive verbal feeding communications. Information gathered may inform tailored training at the agency or individual level. Additional observational assessments throughout the school year may be useful to provide ECETs with feedback on how their interactions are improving relative to evidence-based practice.

At a broader level, and in line with recommendations from Story, Kaphignsts, and French,[55] this study provides a descriptive environmental exploration of verbal feeding communication as part of the classroom food environment. Apart from the measure development aspect of this study, the observed verbal ECET feeding communications highlight areas for improvement in the use of recommended mealtime interactions in early care and education settings. Due to the shared variance found between Lead and Assistant ECETs in the same classroom, future work can explore the potential mechanisms that Lead to these similarities, and verbal feeding communication trainings can be conducted accordingly. Further, policy makers should consider how well current training requirements address supporting ECETs to enact supportive verbal feeding communications. A tool such as Table Talk can play a role in identifying parts of the feeding environment that can be improved. Additionally, to individualize feeding communication training, future work in larger samples can explore differences based on ECET characteristics such as education level and ethnicity, as well as diversity among eating settings (e.g., classroom, cafeteria).

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Table 1.

Average Observed Number of Communications by Teacher Type

Supportive Communications	**Lead Mean (sd) Range**	**Assistant Mean (sd) Range**	**Total Mean (sd) Range**
Positive comments about food served.[6,26,27] *(I am really enjoying the peas today. Yummy.)*	2.8 (2.4) 0 – 10	2.3 (1.8) 0 – 7	2.5 (2.1) 0 – 10
Hunger cues[11,25,30,32,33] *(Are you full? How does your belly feel?)*	0.4 (0.7) 0 – 3	0.1 (0.3) 0 – 1	0.3 (0.6) 0 – 3
Encourage trying in positive way[6,11,24,26,27,29,31,32] *(Would you like to try the peas?)*	3.4 (2.8) (0 – 11)	2.0 (2.5) 0 – 11	2.7 (2.7) 0 – 11
Exploring foods[11,29,33–35] *(What does it smell like? How does it feel in your mouth?)*	4.1 (3.7) 0 – 13	2.3 (2.5) 0 – 9	3.2 (3.3) 0 – 13
Total Supportive Communications	10.7 (6.7) 0 – 24	6.7 (4.4) 0 – 16	8.7 (6.0) 0 – 24
Unsupportive Communications			
Negative comments about the food served[36–39] *(I can't believe we're having this again. I don't like peas.)*	0.1 (0.4) 0 – 2	0.1 (0.25) 0 – 1	0.1 (0.3) 0 – 2
Pressure to eat.[28–31] (*Eat your food. Take a bite. Clean your plate. Finish.)*	3.8 (3.5) 0 – 14	3.8 (5.0) 0 – 25	3.8 (4.3) 0 – 25
Threats *(to encourage eating)*[10,11,28–31,36–39,40,41] *(If you don't eat, you'll be over here by yourself.)*	0.0 (0.0)	0.1 (0.2) 0 – 1	0.03 (0.1) 0 – 1
Discourage manipulating food[11,29,33–35] (*Eat; don't play. That's sticky and nasty.)*	0.8 (1.3) 0 – 7	0.8 (1.2) 0 – 5	0.8 (1.2) 0 – 7
Indicate preference for unhealthy food.[6,26,27] *(I wish we were having french fries today.)*	0.3 (0.6) 0 – 2	0.1 (0.3) 0 – 2	0.2 (0.5) 0 – 2
Food as a reward.[36–39] *(If you eat your vegetable, you can have dessert).*	0.1 (0.2) 0 −1	.01 (.1) 0 – 1	0.03 (0.2) 0 – 1
Hurries to finish eating[10,11,28–31,40,41] *(We're waiting on you. Let's hurry so we can go to recess.)*	0.4 (0.7) 0 – 3	0.5 (0.9) 0 – 5	0.4 (0.8) 0 – 5
Firm behavioral control[10,11,40,41] *(Turn around. Sit up straight. Hands in your lap)*	3.7 (2.6) 0 – 12	4.6 (3.5) 0 – 15	4.2 (3.1) 0 – 15
Total Unsupportive Communications	8.2 (5.9) 1 – 31	8.7 (8.6) 0 – 47	8.5 (7.3) 1 – 47
Total Communications	18.9 (8.0) 4 – 42	15.4 (9.6) 1 – 49	17.2 (8.9) 1 – 49

Table 2.

Demographic Characteristics by Early Care and Education Teacher Type

Characteristic		**Total % N = 75**	**Assistant % *n* = 38**	**Lead% *n* = 37**
Age				
	19–24	2.0	4.2	0
	25–34	19.6	33.3	5.4
	35–40	21.6	16.7	16.2
	41+	56.9	45.8	48.6
Race				
	White	28.0	26.3	29.7
	African American	64.0	60.5	64.9
	American Indian	1.3	2.6	0
	Asian/Pacific Islander	4.0	2.6	5.3
	Other	2.7	7.8	0
Hispanic				
	No	94.7	94.7	94.3
	Yes	5.3	5.3	5.4
Education Level				
	High School/GED	7.2	14.7	0
	Some College	15.9	32.4	0
	Associates Degree	34.8	32.4	38.2
	Bachelor’s Degree	34.9	17.6	50.0
	Master’s Degree +	7.2	2.9	11.8

Table 3.

One-Way Analysis of Variance to Compare Supportive and Unsupportive Communications by Teacher Type

	Lead Teachers Mean (*SD*)	**Assistant Teachers Mean (*SD*)**	***F***	***p*-value**
Supportive Comments	10.7 (6.7)	6.7 (4.4)	4.83	0.03
Unsupportive Comments	8.2 (5.9)	8.7 (8.6)	0.30	0.59