

THE RELATIONSHIP BETWEEN PARENTAL
FEEDING PRACTICES AND
THE CHILD'S WEIGHT

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ABSTRACT

Childhood obesity is a public health concern. It is problematic in the sense that not only does it have short-term consequences for the child, such as early onset of chronic disease and social repercussions due to the stigma of being overweight, but also can result in long-term health consequences. Parental feeding strategies are related to parental weight, parent eating behaviors, and parental perception of the child's weight. Strategies such as restricting unhealthy foods, rewarding good behavior with unhealthy foods, and pressuring children to eat healthy foods are strategies that can lead to poor dietary habits in children and excessive weight gain.

The purpose of this cross-sectional study was to assess the relationships among parental mindful eating, child feeding strategies, and child weight status. Participants were 45 mothers of children, ages two to five, recruited from the family medicine clinic at The University Medical Center at the University of Alabama (UMC) with a mean age of 29.1 (± 1.6). The mothers were given a brief survey comprised of previously validated scales used to measure demographics, mindful eating, and child feeding strategies. Weight of the reference child was also obtained.

It was found that there was no significant relationship between parental mindful eating and the child's BMI status ($p=0.66$). However, a significant relationship was found between parental mindful eating and monitoring as a child feeding strategy ($p=0.01$). This shows that parents who are more mindful eaters practice more positive child feeding strategies than those who are less mindful. Therefore, educating parents on becoming mindful eaters could be an appropriate strategy to foster appropriate child feeding practices in their preschool-aged children.

DEDICATION

This thesis is dedicated to everyone who assisted and guided me through the process of completing this project. I would especially like to thank my family and friends for their unwavering encouragement and support in my journey to complete this manuscript.

LIST OF ABBREVIATIONS AND SYMBOLS

<i>BMI</i>	Body Mass Index
<i>CFQ</i>	Child Feeding Questionnaire
<i>MEQ</i>	Mindful Eating Questionnaire
<i>p</i>	Probability associated with the occurrence under the null hypothesis of a value as extreme or more extreme than the observed value
<i>r</i>	Pearson product-moment correlation
<i>SNAP</i>	Supplemental Nutrition Assistance Program
<i>UMC</i>	University Medical Center
<i>WIC</i>	Special Supplemental Nutrition Program for Women, Infants, and Children
<	Less than
≤	Less than or equal to
>	Greater than
≥	Greater than or equal to
=	Equal to

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CONTENTS

ABSTRACT.....	ii
DEDICATION.....	iii
LIST OF ABBREVIATIONS AND SYMBOLS.....	iv
ACKNOWLEDGEMENTS.....	v
LIST OF TABLES.....	vii
1. INTRODUCTION.....	1
2. LITERATURE REVIEW.....	3
3. METHODOLOGY.....	10
4. RESULTS.....	13
5. DISCUSSION.....	17
REFERENCES.....	20
APPENDIX.....	22

LIST OF TABLES

1. Participant Characteristics.....	14
2. MEQ Scores and Weight Status of the Child.....	15
3. Correlations between Mindful Eating and Child-Feeding Questionnaire Scores.....	16

CHAPTER 1

INTRODUCTION

Childhood obesity is a public health concern. It is problematic in the sense that not only does it have short-term consequences for the child, such as early onset of chronic disease and social repercussions due to the stigma of being overweight, but also can result in long-term health consequences.¹ Furthermore, children with obese parents are more likely to be obese than children with parents of normal weight status.² The reasons for this vary, but genetics, home environment, and parental role modeling are associated with childhood obesity.³ Parental feeding strategies are related to parental weight, parent eating behaviors, and parental perception of the child's weight. Strategies such as restricting unhealthy foods, rewarding good behavior with unhealthy foods, and pressuring children to eat healthy foods are strategies that can lead to poor dietary habits in children and excessive weight gain.⁴

Mindful eating can be defined as a “nonjudgmental awareness of physical and emotional sensations while eating or in a food-related environment.”^{5,1439} During the development of the Mindful Eating Questionnaire, five domains of mindful eating were defined in order to ensure all potential areas of mindful eating were included. These domains include: disinhibition, “the inability to stop eating even when full”; awareness, “being aware of and appreciating the effects of food on the senses”; external cues, “eating in response to environmental cues”; emotional response, “eating in response to negative emotional states”; and distraction, “focus on other activities while eating.”^{5,1440} Mindful eaters eat when they are hungry and stop when they are satisfied. Thus, the body's self-regulatory systems maintain weight at appropriate levels. Mindful

eating can be role modeled to young children and may shape the eating patterns and weight status of children.⁴ Role modeling is just one of many child feeding behaviors.

There is no current research that assesses the relationship between all five domains of mindful eating and child weight status. Therefore, the goal of this cross-sectional study was to assess the relationships among parental mindful eating, child feeding strategies, and child weight status. The investigation assessed the following hypotheses:

Hyp 1: Parental mindful eating is significantly associated with child's weight status.

Hyp 2: Parental mindful eating is associated with child feeding practices.

CHAPTER 2

LITERATURE REVIEW

This review of the literature provides background information that supports the research questions and methods used to address these questions. The review is divided into several topic areas including the relationship between the parent's and child's weight status, the definition of mindful eating, attributes of mindful eaters, results of mindful eating interventions, and lastly the impact of parental mindful eating on child weight status.

RELATIONSHIP BETWEEN PARENT AND CHILD'S WEIGHT

Childhood obesity continues to be a public health concern. For children and adolescents ages 2-19, weight status is defined using body mass index. Using the Centers for Disease Control and Prevention 2000 BMI-for-age growth charts, overweight is defined as a BMI-for-age at or above the 85th percentile but below the 95th percentile, and obesity is defined as a BMI-for-age at or above the 95th percentile.¹ The prevalence of obesity in children was on a gradual incline in the 1980s and 1990s; however, no significant changes were seen in prevalence rates between 1999-2000 and 2007-2008. However, rates remain high at 16.9 percent in 2011-2012.⁶ This was not a significant change from the rates of obesity in 1999-2000, which were 16.2 percent in males and 16.1 percent in females.¹ Childhood obesity not only results in short-term consequences, such as depression and anxiety due to the social stigma of being overweight, but has also been shown to persist into adulthood.^{4,7} According to Singh et al., the risk of an

overweight child becoming an overweight adult is twice as high as the risk of normal weight children.⁷ Research has shown that children with obese parents are more susceptible to becoming obese due to a myriad of reasons, including genetics and the home environment.³

Child feeding practices play a role in the types of foods and portion sizes the child eats, the frequency of eating, and in what social contexts eating occurs.⁴ Birch et al. suggested that parental weight is linked with the child's weight through genetics, the home environment and parental feeding practices. For example, the parent controls the home food environment by the types of foods that she/he brings into the household. The parent may role model either appropriate or inappropriate eating and weight control habits. Plus, the parent either teaches the child about mindful eating by allowing the child to choose the amount of food consumed based on biological cues or attempts to manage their child's intake through restriction, over-monitoring of intake, or pressure to eat. Thus, the feeding strategies used by the parent may determine whether the child will be a mindful eater. The Child Feeding Questionnaire (CFQ), developed by Birch et al, assesses the parents' perceptions of obesity and the concerns they have regarding it. The 31 items in the questionnaire are loaded into seven different factors. These factors include perceived responsibility, perceived parent weight, perceived child weight, concern about child weight, pressure to eat, restriction, and monitoring.⁴

DEFINITION OF MINDFUL EATING

There are a large number of evidence-based interventions that may help adults and children control weight gain or promote weight loss. Although some of these practices have shown positive results, the long-term outcomes are typically poor. According to O'Reilly, obese individuals may regain approximately half of the weight they lose within a year after their weight

loss.⁸ Byrne et al. also found that approximately 80% of individuals who lose weight will return to their initial weight within three to five years.⁹ Many of the strategies used in current weight management programs focus on restriction of food intake while increasing physical activity. These strategies address “what to eat” but may not address “how to eat.”

Interventions that use integrative therapies, such as mindfulness or mindful eating have been used to treat disordered eating behaviors, specifically obesity-related behaviors.⁸ Daubenmier and colleagues defined mindfulness as a “non-judgmental present-moment experience to distance the self from interpreting habitual patterns of thoughts, emotions, and behaviors and thus permitting heightened adaptive responses.”¹⁰ Mindful eating is defined as being aware of the present moment and surroundings when one is eating, while also paying attention to one’s physical and emotional sensations. It is this concept that differentiates mindful eating from other weight management programs and practices.¹¹ Some of the components of mindful eating include slowing down the pace of eating, avoiding distractions while eating, being aware of hunger and fullness cues and using these cues to dictate eating behaviors, acknowledging food preferences without judgment, using all of one’s senses while eating, and being aware of the effects of mindless eating.¹²

MEASUREMENT OF MINDFUL EATING

Framson et al. developed and validated a questionnaire to measure mindful eating. The Mindful Eating Questionnaire (MEQ) is a 28-item survey that is used to measure the following five components of mindful eating: disinhibition, awareness, external cues, emotional response, and distraction. Each item is scored from one to four, with higher scores indicating mindful eating, and the mean of all factors measured is considered the MEQ score. During its validation

period, Framson et al. found that the adjusted MEQ score was inversely associated with BMI in adults.⁵

ATTRIBUTES OF MINDFUL EATERS

There is some evidence that suggests that mindful eaters have a lower risk of obesity. In a cross-sectional study of 90 college students, Moor et al. assessed the relationships between mindful eating, body mass index (BMI) and physical activity. Participants completed the MEQ, and self-reported height, weight and physical activity levels. They found an inverse relationship between mindful eating scores and BMI as well as physical activity levels and BMI. Also of interest, they found that mindful eaters were more physically active than those with low mindful eating scores.¹¹

It is suspected that mindful eating improves weight status because individuals practicing mindfulness choose more appropriate portion sizes than those who do not practice mindfulness. Beshara, Hutchinson, and Wilson hypothesized that there was a negative association between mindfulness and self-reported serving size of energy dense foods. Using data from a sample of 171 South Australian adults with BMIs ranging from 17 to 45 kg/m², the researchers measured everyday mindfulness of the participants using the Five Factor Mindfulness Questionnaire and the MEQ. The Energy Dense Food Serving Size Scale was used to assess consumption. The researchers found that participants who reported higher levels of mindfulness reported significantly smaller serving sizes of energy dense foods ($p < 0.05$).¹³

In a similarly designed study by Moor et al., 90 college students were asked to complete the MEQ, and the results were compared to their BMI. They, too, found that a lower BMI was significantly associated with overall mindful eating.¹¹ These findings from cross-sectional

studies suggest an association between mindful eating, weight status, and healthy behaviors. However, there have yet to be any cross-sectional studies investigating the relationship between parental mindful eating and feeding practices on their child's weight.

MINDFUL EATING INTERVENTIONS

Mindful eating concepts have been added to weight control programs. The effectiveness of these programs seems to depend on the length of program or number of sessions. In a pilot study by Dalen et al., obese participants were recruited to attend a group intervention that focused on teaching mindfulness while eating. The participants attended two-hour classes each week for six weeks. The classes consisted of lessons in mindful meditation and mindful eating along with group discussion. The individuals' body mass index (BMI) were measured prior to the intervention, and measured again at the end of the study. The researchers found a statistically significant decrease ($p < 0.01$) in the post-intervention BMIs of the participants when compared to their baseline values. Decreases in eating disinhibition, psychological distress, and binge eating were observed as well.¹⁴

A similar study was conducted, but focused only on the effects of mindful interventions on women. In a randomized controlled trial of 62 women, ages 19-64, by Tapper et al., participants were assigned to either a control group, who were encouraged to continue their current diet and eating habits, or an experimental group. The individuals randomized into the experimental group were invited to attend four two-hour workshops, during which they learned about mindfulness during eating. The participants' BMIs were measured at baseline, 4 months, and six months. They found that those who attended the workshops had a statistically significant

decrease in BMI ($p < 0.05$) compared to those in the control group and those who did not attend the interventions.¹⁵

Timmerman and Brown conducted a similar intervention, where 19 women who ate in restaurants at least three times per week underwent a six-week intervention of two-hour group sessions. During these sessions, they received education on caloric reduction and fat intake while eating out as well as mindful eating meditations. The control group included 16 women. After the six week intervention, the mindful eating group had significantly greater weight loss as well as significantly lower calorie and fat intake than the controls.¹⁶

Another pilot intervention study compared a diabetes self-management intervention to a mindful eating intervention among adults with type 2 diabetes. However, after the three-month intervention, no significant differences were found between the two groups in weight or glycaemia.¹⁷ From all these intervention studies, it can be concluded that mindful eating training may be beneficial for weight loss and overall decrease in energy dense foods.

PARENTAL MINDFUL EATING AND CHILDREN'S WEIGHT STATUS

Ellyn Satter and her colleagues have a long history of promoting intuitive eating strategies for child weight management. Her philosophy of child feeding promotes parental control of the foods presented or offered to the child while allowing the child to eat based on hunger and satiety cues.¹⁸ Birch et al. have found that these child feeding strategies are significantly related to healthy eating patterns and appropriate weight gain among young children. Although there are a plethora of research articles that focus on disinhibition and childhood obesity, there are no studies that assess the relationship between all five aspects of mindful eating, parental weight status, and child weight status.⁴ Because parents are responsible

for role modeling eating behaviors, it is critical to understand whether parental mindful eating has an effect on child feeding strategies that may promote weight gain. Finding a relationship between these variables could set the groundwork for future research focused on family-based interventions to prevent and/or reverse obesity not only in adults but also in their children. Therefore, the goal of this study was to assess the relationships among parental mindful eating, child feeding strategies, and the weight status of their child.

CHAPTER 3

METHODOLOGY

INTRODUCTION

This chapter describes in detail the methodology used in this study to answer the proposed research questions. The purpose of this cross-sectional study was to assess the relationships among parental mindful eating, child feeding strategies, and child weight status. This chapter describes the selection of participants, the procedures used to obtain the data needed to answer the research questions, the contents of the survey instrument, and the statistics used to assess correlations.

The investigation used the following hypotheses:

Hyp 1: Parental mindful eating is significantly associated with child's weight status.

Hyp 2: Parental mindful eating is associated with child feeding practices.

SUBJECTS

Mothers of children, ages two to five, were recruited from the family medicine clinic at The University Medical Center at the University of Alabama (UMC). Mothers or children with genetic disorders, such as hypothyroidism, Cushing disease, Prader-Willi syndrome, and Bardet-Biedl syndrome that have the potential to predispose to obesity were excluded from participation in the study. Pregnant mothers were also excluded. Lastly, only mothers who lived and ate regularly with the reference child were included for participation in the study.

PROCEDURES

Mothers attending the family medicine clinic at the UMC were approached in the waiting room by a member of the research team and asked to participate in the study. If the mother expressed interest in the study, then a member of the research team discussed with her the study procedures, risks, and benefits. After this discussion, the potential participants were asked if they were still interested in participating in the study. If so, the researcher performed a brief exclusion screener to ensure the potential participant was eligible. If all criteria were met, then the mother was provided with the informed consent and the parental consent for the reference child. The mother was encouraged to ask any questions she had to the researcher.

Once consent was obtained, the mother was given a tablet on which she completed the survey. After completing the survey, the child's height was measured on a calibrated stadiometer and weight measured on a calibrated scale and recorded. Height was recorded to the nearest 1/8 inch and weight to the nearest tenth of a pound. Height and weight data were collected in private. At no point during this study did the researcher have access to private health information or medical records.

SURVEY

The survey consisted of previously validated scales that measure child feeding practices, parental mindful eating, and demographic information. The electronic survey took approximately 10 minutes to complete. The questionnaire was composed of three sections. The first section focused on demographic information. The second section was adapted from the Mindful Eating Questionnaire (MEQ).⁴ This standardized tool focuses on five domains of mindful eating and is used to measure overall mindful eating. Our survey contained all questions from the validated

MEQ; however, a five-point Likert scale was used as opposed to the four-point scale typically used with the MEQ. The final section of the survey was taken from Birch's Child Feeding Questionnaire.⁵ This is a validated tool used to determine how child feeding practices affect the child's weight. It also assesses the parents' perceptions of obesity and their concerns about their child's weight.⁴ Each mother completed the survey herself; however, a member of the research team was present to assist in clarification of questions if needed.

DATA ENTRY AND STATISTICS

The survey was completed using the online survey software Qualtrics. After height and weight were obtained, children's BMIs were plotted on the CDC growth charts. Sample characteristics were analyzed using descriptive statistics. The children were placed into four categories based on their BMI-for-age: underweight ($< 5^{\text{th}}$ percentile), normal weight ($\geq 5^{\text{th}}$ percentile but less than the 85^{th} percentile), overweight (\geq the 85^{th} percentile but below the 95^{th} percentile), and obese (\geq the 95^{th} percentile). Due to the small number of subjects, the groups needed to be further collapsed to underweight/normal weight and overweight/obese.

The relationship between the child's weight status and parental mindful eating was determined using two-tailed t-tests, where a p -value of < 0.05 was considered significant. To answer the second research question, a Pearson product-moment correlation was used to assess the relationship between child feeding practices and parental mindful eating. Correlations with a p -value < 0.05 were considered significant.

CHAPTER 4

RESULTS

Subjects were 45 mothers and 45 children, aged 2 to 5, attending the Family Medicine Clinic at the University Medical Center. Over three quarters of the sample were non-Hispanic black (77.8%); the remainder of the participants were non-Hispanic white (20.0%), aside from one participant who was American Indian/Alaska Native (2.2%). This varied slightly from the races of the children, where 82.2% were non-Hispanic black and 13.3% were non-Hispanic white. One child was Asian (2.2%) and one was American Indian/Alaska Native (2.2%). Maternal employment status was defined by the following categories: full time working outside the home (46.7%), part time working outside the home (13.3%), and stay at home mom (40%). Participation in food assistance programs was also measured, with 48.9% participating in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and 64.4% participating in Supplemental Nutrition Assistance Program (SNAP). The average age of the mothers participating was 29.2 years (± 5.46), and the average number of dependent children in each household was 2.7 (± 1.6). Participant demographics are listed in Table 1.

Table 1: Participant Characteristics (n=45)

Characteristic	n (%)
Race	
African American	35 (77.8%)
White	9 (20.0%)
American Indian/Alaska Native	1 (2.2%)
Child's Race	
African American	37 (82.2%)
White	6 (13.3%)
American Indian/Alaska Native	1 (2.2%)
Asian	1 (2.2%)
Child BMI Category	
Underweight	5 (11.1%)
Normal Weight	29 (64.4%)
Overweight	3 (6.7%)
Obese	8 (17.8%)
Employment Status	
Full time outside the home	21 (46.7%)
Part time outside the home	6 (13.3%)
Stay at home mom	18 (40.0%)
Participates in WIC	
Yes	22 (48.9%)
No	23 (51.1%)
Participates in SNAP	
Yes	29 (64.4%)
No	16 (35.6%)
Age (years)	29.2 +/- 5.46 (range 20-45)
Number of Dependent Children	2.7 +/- 1.6 (range 1-7)

Mean scores of the MEQ were calculated for each domain of the questionnaire, along with the total MEQ score, which was 3.59 (± 0.47) on a scale of 1 to 5, where 5 is most mindful. As for the scores measured using the child-feeding questionnaire, three domains were calculated: restriction, pressure to eat, and monitoring. The mean score for restriction, referring to the parent's attempt to control their child's eating by restricting access to certain types and amounts of foods, was 3.76 (± 0.84) where 5 is most restrictive. Parent's attempts to control their child's eating by encouraging the amount and types of foods eaten is considered "pressure to eat." The

mean score for pressure to eat was 3.69 (± 0.96) where 5 is considered high pressure. The mean score for monitoring, or the extent to which a parent keeps track of their child's consumption of energy dense foods was 4.27 (± 1.01). Higher scores may represent a higher level of awareness of the child's eating patterns.

There were no significant differences in the overall MEQ score and the five subscale scores between the underweight/normal weight children and the overweight/obese children. Results of these tests are shown in Table 2.

Table 2: MEQ Scores and Weight Status of the Child (n=45)

Variable Name	Overall Sample n=45 Mean (SD)	Underweight/Normal Weight n=34 Mean (SD)	Overweight/Obese n=11 Mean (SD)	p-value^a
MEQ-Total	3.59 (0.47)	3.61 (0.46)	3.54 (0.52)	0.66
MEQ-Disinhibition	3.97 (0.66)	3.95 (0.67)	4.03 (0.66)	0.70
MEQ-Awareness	3.62 (0.73)	3.66 (0.73)	3.48 (0.73)	0.48
MEQ-Emotional Response	3.69 (1.05)	3.66 (1.03)	3.80 (1.15)	0.72
MEQ-Distracted Eating	3.18 (0.93)	3.19 (0.94)	3.15 (0.95)	0.92
MEQ-Environmental Cues	3.20 (0.79)	3.28 (0.84)	2.95 (0.59)	0.24

^aTwo-tailed t-tests used to determine differences between underweight/normal weight children and overweight/obese children. Differences were considered significant when the p-value was < 0.05 .

Pearson correlations were used to determine whether parental mindful eating was related to child feeding practices. Monitoring was significantly correlated to overall MEQ scores ($r=0.39$, $p=0.01$), disinhibition ($r=0.34$, $p=0.02$) and emotional response ($r=0.37$, $p=0.01$). Results of the correlations are shown in Table 3.

Table 3: Correlations between Mindful Eating and Child-Feeding Questionnaire Scores

Variable	Restriction rho p-value	Pressure to Eat rho p-value	Monitoring rho p-value
MEQ-Total	-0.22 0.14	-0.09 0.57	0.39 0.01*
MEQ-Disinhibition	-0.15 0.32	-0.15 0.32	0.34 0.02*
MEQ-Awareness	-0.12 0.43	0.08 0.62	0.09 0.57
MEQ-Emotional Response	-0.15 0.31	-0.02 0.87	0.37 0.01*
MEQ-Distracted Eating	-0.18 0.24	-0.03 0.86	0.23 0.14
MEQ-Environmental Cues	-0.08 0.60	-0.16 0.45	0.14 0.37

*Pearson correlations were used to assess the relationship between mindful eating and child feeding scores. Results were considered significant when $p < 0.05$.

CHAPTER 5

DISCUSSION

The purpose of this cross-sectional study was to assess the relationships among parental mindful eating, child feeding strategies, and child weight status. The results of this investigation rejected the first study hypothesis: Parental mindful eating is significantly associated with child's weight status. However, the results confirmed the second hypothesis: Parental mindful eating is associated with child feeding practices. This chapter discusses these results and their implications for past and future research.

A two-tailed t-test comparing MEQ scores and child BMI status was completed to evaluate the relationship between parental mindful eating and the child's weight. Mean total MEQ score as well as mean scores from each domain were compared with child's weight status. There were no significant differences in the overall MEQ and MEQ sub-scales between groups. It is not possible to compare these findings with the results of other studies, because there have been no other studies investigating the relationship between these variables. However, MEQ scores have been found to be lower among obese adults.^{11,14-16}

Although the sample size was small, there were significant relationships between monitoring and the overall MEQ score, the MEQ-disinhibition score, and the MEQ-emotional eating score. These results suggest that mothers with higher mindful eating scores also have higher monitoring scores or they are more likely to monitor their child's consumption of energy dense foods such as soda, chips, and candies. More specifically, mothers who experience less disinhibition, or eat according to their biological hunger and satiety cues, monitor their child's

consumption more, and mothers who are more mindful of their emotional response while eating practice more monitoring. A surprising finding was that there was no relationship between MEQ scores and restriction (controlling the child's eating by restricting certain types and amounts of food) or between MEQ scores and pressure to eat (encouraging amount and types of foods eaten by the child). These two practices can encourage children to ignore their internal hunger and satiety cues, which may possibly lead to obesity or excessive weight gain.¹⁹

There have been no studies comparing mindful eating with child feeding strategies either, which makes it difficult to compare these results to existing findings. However, Birch et al. did find that these child-feeding strategies are significantly related to appropriate weight gain among young children.⁴ Because a significant relationship was found between parental mindful eating and child feeding strategies, a relationship was expected to be found between parental mindful eating and the child's weight. Therefore, the results of the present study were unexpected based on the findings of previous investigations.

The present study had some limitations. The greatest limitation faced throughout the investigation was a problem with recruitment, which led to a smaller sample size than needed to show significance. Only recruiting from one site, not being able to recruit from the Spanish-speaking population due to lack of translation, and a limited window of time to recruit were all reasons the expected sample size was unable to be obtained. This led to the results having to be analyzed differently and less robustly. A univariate analysis was performed, but a multivariate analysis adjusting for mother's weight, child's weight, and the mother's perception of the child's weight would have strengthened this study and possibly led to different results.

In conclusion, the results of this study suggest that there is a significant relationship between parental mindful eating and child feeding strategies, but no significant

relationship between parental mindful eating and the preschool child's weight status. These preliminary results suggest that parents who are more mindful eaters practice more positive child feeding strategies than those who are less mindful. Therefore, educating parents on becoming mindful eaters could be an appropriate strategy to foster appropriate child feeding strategies in their preschool-aged children. However, future studies with larger sample sizes investigating these variables are necessary to determine whether these relationships are accurate as well as their strength.

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APPENDIX

SURVEY

Demographics/General Information

1. How old are you? _____ years
2. Are you Hispanic or latino?
 - a. Yes
 - b. No
3. What is your race?
 - a. American Indian or Alaska Native
 - b. Asian
 - c. Black or African American
 - d. Native Hawaiian or Other Pacific Islander
 - e. White
4. What is your child's race?
 - a. American Indian or Alaska Native
 - b. Asian
 - c. Black or African American
 - d. Native Hawaiian or Other Pacific Islander
 - e. White
5. How many dependents under the age of 18 live in your household? _____
6. Which of the following options best describes your occupation?
 - a. Full time working outside the home
 - b. Part time working outside the home
 - c. Working from home for a salary
 - d. Stay at home mom (working without a salary)
7. Do you have any type of medical condition that affects your weight?
 - a. Yes _____
 - b. No _____
8. Do you follow any type of special diet for chronic disease management?
 - a. Yes _____
 - b. No _____
9. Do you participate in WIC?
 - a. Yes
 - b. No
10. Do you participate in SNAP (Food Stamps)?
 - a. Yes
 - b. No

Mindful Eating Questionnaire

Disinhibition

1. I stop eating when I'm full even when eating something I love.
 - a. Never/Rarely
 - b. Sometimes
 - c. Often

- d. Usually/Always
- 2. When a restaurant portion is too large, I stop eating when I'm full.
 - a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
- 3. When I eat at "all you can eat" buffets, I tend to overeat.
 - a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
- 4. If there are leftovers that I like, I take a second helping even though I'm full.
 - a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
- 5. If there's good food at a party, I'll continue eating even after I'm full.
 - a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
- 6. When I'm eating one of my favorite foods, I don't recognize when I've had enough.
 - a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
- 7. When I'm at a restaurant, I can tell when the portion I've been served is too large for me.
 - a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
- 8. If it doesn't cost much more, I get the larger size food or drink regardless of how hungry I feel.
 - a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always

Awareness

- 9. I notice when there are subtle flavors in the foods I eat.
 - a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
- 10. Before I eat I take a moment to appreciate the colors and smells of my food.
 - a. Never/Rarely

- b. Sometimes
 - c. Often
 - d. Usually/Always
11. I appreciate the way my food looks on my plate.
- a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
12. When eating a pleasant meal, I notice if it makes me feel relaxed.
- a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
13. I taste every bite of food that I eat.
- a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
14. I notice when the food I eat affects my emotional state.
- a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
15. I notice when foods and drinks are too sweet.
- a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always

External Cues

16. I recognize when food advertisements make me want to eat.
- a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
17. I notice when I'm eating from a dish of candy just because it's there.
- a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
18. I recognize when I'm eating and not hungry.
- a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
19. I notice when just going into a movie theater makes me want to eat candy or popcorn.

- a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
20. When I eat a big meal, I notice if it makes me feel heavy or sluggish.
- a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
21. At a party where there is a lot of good food, I notice when it makes me want to eat more food than I should.
- a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always

Emotional Response

22. When I'm sad I eat to feel better.
- a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
23. When I'm feeling stressed at work I'll go find something to eat.
- a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
24. I have trouble not eating ice cream, cookies, or chips if they're around the house.
- a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
25. I snack without noticing that I am eating.
- a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always

Distraction

26. My thoughts tend to wander while I am eating.
- a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always
27. I think about things I need to do while I am eating.
- a. Never/Rarely

- b. Sometimes
 - c. Often
 - d. Usually/Always
28. I eat so quickly that I don't taste what I'm eating.
- a. Never/Rarely
 - b. Sometimes
 - c. Often
 - d. Usually/Always

Child Feeding Questionnaire

Using the scale below, please circle one number for each question which best corresponds to your answer. **Please answer about your child who is in our study.**

1. When your child is at home, how often are you responsible for feeding him/her?
 - a. Never
 - b. Seldom
 - c. Half of time
 - d. Most of time
 - e. Always
2. How often are you responsible for deciding what your child's portion sizes are?
 - a. Never
 - b. Seldom
 - c. Half of time
 - d. Most of time
 - e. Always
3. How often are you responsible for deciding if your child has eaten the right kind of foods?
 - a. Never
 - b. Seldom
 - c. Half of time
 - d. Most of time
 - e. Always

Using the scale below, please indicate how you would classify **your own weight** at **each of these 4 time periods** listed below (Please circle **ONLY ONE** number for each time period).

4. Your Childhood (5 to 10 years old)
 - a. Markedly underweight
 - b. Underweight
 - c. Average
 - d. Overweight
 - e. Markedly overweight
5. Your adolescence
 - a. Markedly underweight
 - b. Underweight

- c. Average
 - d. Overweight
 - e. Markedly overweight
6. Your 20's
- a. Markedly underweight
 - b. Underweight
 - c. Average
 - d. Overweight
 - e. Markedly overweight
7. Currently
- a. Markedly underweight
 - b. Underweight
 - c. Average
 - d. Overweight
 - e. Markedly overweight

Using the scale below, please indicate how you would classify **your child's weight** at **each of these 4 time periods** listed below. (Please circle **ONLY ONE** number for each time period).

8. Your child during the first year of life
- a. Markedly underweight
 - b. Underweight
 - c. Average
 - d. Overweight
 - e. Markedly overweight
9. Your child as a toddler
- a. Markedly underweight
 - b. Underweight
 - c. Average
 - d. Overweight
 - e. Markedly overweight
10. Your child as a pre-schooler
- a. Markedly underweight
 - b. Underweight
 - c. Average
 - d. Overweight
 - e. Markedly overweight
11. Your child kindergarten through 2nd grade
- a. Markedly underweight
 - b. Underweight
 - c. Average
 - d. Overweight
 - e. Markedly overweight

Using the scale below, please circle one number for each question which best corresponds to your answer. **Please answer about your child who is in our study.**

12. How concerned are you about your child *eating too much* when you are not around him/her?
- Unconcerned
 - Slightly unconcerned
 - Neutral
 - Slightly concerned
 - Concerned
13. How concerned are you about your child having to diet to maintain a desirable weight?
- Unconcerned
 - Slightly unconcerned
 - Neutral
 - Slightly concerned
 - Concerned
14. How concerned are you about your child becoming overweight?
- Unconcerned
 - Slightly unconcerned
 - Neutral
 - Slightly concerned
 - Concerned

Using the scale below, please circle one number for each question which best corresponds to your answer. **Please answer about your child who is in our study.**

15. I have to be sure that my child does not eat too many *sweets (candy, ice cream, cake or pastries)*.
- Disagree
 - Slightly disagree
 - Neutral
 - Slightly agree
 - Agree
16. I have to be sure that my child does not eat too many *high fat foods*.
- Disagree
 - Slightly disagree
 - Neutral
 - Slightly agree
 - Agree
17. I have to be sure that my child does not eat too much of her *favorite foods*.
- Disagree
 - Slightly disagree
 - Neutral
 - Slightly agree
 - Agree
18. I intentionally keep some foods out of my child's reach.
- Disagree
 - Slightly disagree
 - Neutral

- d. Slightly agree
 - e. Agree
19. I offer *sweets (candy, ice cream, cake, pastries)* to my child as a reward for good behavior.
- a. Disagree
 - b. Slightly disagree
 - c. Neutral
 - d. Slightly agree
 - e. Agree
20. I offer my child her *favorite foods* in exchange for good behavior.
- a. Disagree
 - b. Slightly disagree
 - c. Neutral
 - d. Slightly agree
 - e. Agree
21. If I did not guide or regulate my child's eating, she would eat too many *junk foods*.
- a. Disagree
 - b. Slightly disagree
 - c. Neutral
 - d. Slightly agree
 - e. Agree
22. If I did not guide or regulate my child's eating, she would eat too much of her *favorite foods*.
- a. Disagree
 - b. Slightly disagree
 - c. Neutral
 - d. Slightly agree
 - e. Agree
23. My child should always eat all of the food on her plate.
- a. Disagree
 - b. Slightly disagree
 - c. Neutral
 - d. Slightly agree
 - e. Agree
24. I have to be especially careful to make sure my child eats enough.
- a. Disagree
 - b. Slightly disagree
 - c. Neutral
 - d. Slightly agree
 - e. Agree
25. If my child says "I'm not hungry," I try to get her to eat anyway.
- a. Disagree
 - b. Slightly disagree
 - c. Neutral
 - d. Slightly agree
 - e. Agree

26. If I did not guide or regulate my child's eating, she would eat much less than she should.
- a. Disagree
 - b. Slightly disagree
 - c. Neutral
 - d. Slightly agree
 - e. Agree

Using the scale below, please circle one number for each question which best corresponds to your answer. **Please answer about you child who is in our study.**

27. How much do you keep track of the *sweets (candy, ice cream, cake, pies, pastries)* that your child eats?
- a. Never
 - b. Rarely
 - c. Sometimes
 - d. Mostly
 - e. Always
28. How much do you keep track of the *snack food (potato chips, Doritos, cheese puffs)* that your child eats?
- a. Never
 - b. Rarely
 - c. Sometimes
 - d. Mostly
 - e. Always
29. How much do you keep track of the *high fat* foods that your child eats?
- a. Never
 - b. Rarely
 - c. Sometimes
 - d. Mostly
 - e. Always

April 13, 2016

Carson Parker
Human Nutrition & Hospitality Mgmt.
The University of Alabama
Box 870311

Re: IRB # 16-OR-158: "The Relationship between Parental Feeding Practices and the Child's Weight"

Dear Ms. Parker,

The University of Alabama Institutional Review Board has granted approval for your proposed research. Your application has been given expedited approval according to 45 CFR part 46. Approval has been given under expedited review Categories 4 and 7 as outlined below:

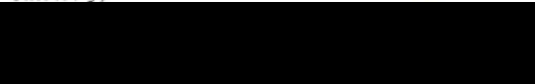
- (4) Collection of data through noninvasive procedures (not involving general anesthesia or sedation) routinely employed in clinical practice, excluding procedures involving x-rays or microwaves; and
- (7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your approval will expire on April 12, 2017. If the study continues beyond that date, you must complete and submit the IRB Renewal Application. If you modify the application, please submit the Modification of an Approved Protocol form. *Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants.* When the study closes, please complete the Request for Study Closure (Investigator) form. Please use the IRB-approved (stamped) flyer and consent form.

Should you need to submit any further correspondence regarding this application, please include the assigned IRB approval number.

Good luck with your research.

Sincerely,



Carpanato T. Myles, MSM, CIM, CIP
Director & Research Compliance Officer
Office for Research Compliance

cc: Dr. Linda Knol