



Impact of Mindful Eating Activities Among Elementary School Children and Their Families

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Presenter: Joan Giampaoli, PhD, RDN
California State University, Chico
Center for Healthy Communities





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Factor Affecting Unhealthy Food Behaviors

Disordered eating behaviors

Binge eating, emotional eating, disconnect from internal hunger and fullness cues can be traced back to childhood

Food cravings

Food cue studies – 6-12 year olds experience more intense food cravings than later years

BMI





Factor Affecting Unhealthy Food Behaviors

Socio-cultural and environmental

Americans likely rely on external cues to moderate eating (mindless eating)

Decreasing plate size

Food cue stimuli – can override biological cues





Factor Affecting Unhealthy Food Behaviors

Socio-cultural and environmental

Peer pressure

Parent's feeding practices – eg., loss of commensality among Hispanic students

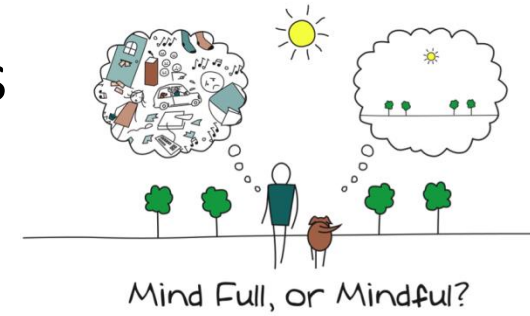




Mindful Eating

Mindfulness approach to changing food behaviors -
through mindful eating

Paying purposeful attention to sensations
and thoughts and feelings around food
being non-judgmental



Benefits of mindful eating???



Mindful Eating and Children

Limited information about effectiveness
particularly in non-clinical settings
can it moderate food intake

Parent involvement also unknown





The Study

Foodie U: the impact of a pilot mindful eating intervention on behaviors among children and families

Primary goal: develop and pilot-test strategies based on mindful eating practices for fostering healthy food-related behaviors among elementary school children and their families, primarily consisting of Hispanic and non-Hispanic whites



Who We Recruited

Study compared an intervention group with a control group

Participants were from one low-income, elementary school in rural northern California for the intervention and a matched control school

Third through fifth grade elementary students and their parents were recruited



Surveys We Used

Student Food Consumption Survey - specifically measures the consumption of fruits, vegetables, and unhealthy energy-dense foods - online

Mindful Eating Questionnaire for Children – measures mindful eating skills - online



Surveys We Used

Eating in Emotional Situations Questionnaire – measures eating in emotional situations due to emotion driven cues in low-income children in fourth grade and older - online

Cue-elicited food craving – online tool designed to quickly measure children’s cravings for food in response to external food cues using 12 images



Surveys We Used

Parent pre-post survey – paper

impact of intervention both school based and family based; home environment questions

Study received prior approval by the school administrators and CSU, Chico, and parent consent was obtained



What We Did

Team met with school principals, staff, and teachers to discuss the project content and obtain approval

School staff and teachers distributed fliers related for the study





What We Did

Pre-intervention surveys administered before first lesson to intervention and control schools

Intervention

Post-intervention surveys to intervention and control schools to assess the impact of the intervention





Intervention

Six classroom lessons:

1. Master Mindless Munching
2. Sensational Senses
3. Getting to Know Hunger and Fullness
4. Emotions Inside Out
5. Planting Seeds of Mindfulness
6. Cultural Celebration Feast



Take-Home Activities

To be completed at home with family:

1. Portion Distortion Activity
2. Five Senses Snack Activity
3. Hunger and Fullness Cues
4. Mindful Choices Interview
5. Nurturing Seeds of Mindfulness
6. Family Cultural Celebration Meal



Results

Intervention

student pre and post-surveys – 171(96%) and 150 (84%)

parent pre and post-surveys - 151 (84.8%) and 68 (38%)

Control

student pre and post-surveys – 107(84%) and 113 (89%)

parent pre and post-surveys – 35% and 63% respectively



Results

Fewer 3rd graders, more 5th graders, and more Hispanics at intervention school

No significant differences in parent demographics

Intervention school had a greater average craving response and greater soda consumption



Results

Overall craving responses decreased significantly among students who received the intervention; no change among control group

Hispanic students - greater pre-to-post decrease in craving response compared to non-Hispanic whites



Results

Intervention group – fruit consumption increased

No other significant changes in:

- consumption patterns

- mindful eating

- emotional eating



Results

More students reported eating when bored or lonely than other emotional situations

50% intervention students ate in three or more emotional situations

15% ate in six or more emotional situations



Results

Parents allowing children help prepare family meals significantly increased in the intervention and control groups

Availability of salty snacks decreased in the intervention group, no change in control group

No other changes in home environment





Results

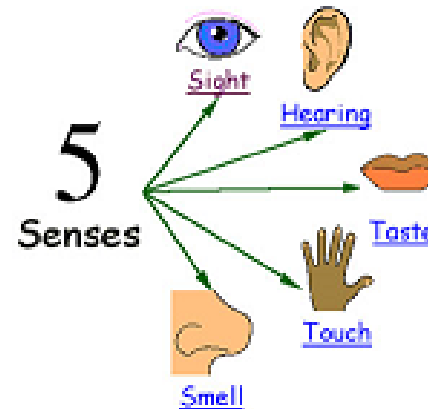
Students liked lessons 1, 5, and 6 the best; 4 the least



Putting It All Together!

Mindful eating and regulatory effect on craving response from children; develop an intuitive regulatory response

A mindful eating intervention for unhealthy food behavior for children may be warranted





Questions???

