



SPRING SEMINAR SERIES

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Preventing Excessive Weight Gain in Adolescent Girls at High-Risk for Adult Obesity

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- **Consequences of Obesity:** type 2 diabetes, cardiovascular disease, hypertension, discrimination, emotional distress, disordered eating, etc.
- **Binge Eating (BE):** can't stop or control how much one is eating.
 - Diagnosis in the DSM IV: occurring 2x per week for the past 6 months (most likely change to 3 months in the DSM V to be like anorexia and bulimia criteria)
 - It is unlike other eating disorders because there are no regular compensatory behaviors; therefore it's not surprising for it to be associated with obesity.
 - Binge eating is also associated with increased rates of psychiatric disorders.
- There is mixed data looking at people with BE's response to weight loss treatment.
- There are some effective short term treatments, i.e. behavior therapy and medication.
- There are only two treatments that are effective short term AND long term:
 - Cognitive Behavioral Therapy (CBT)
 - Interpersonal Psychotherapy (IPT)
 - Studies find that those who can decrease their binge eating are better able to maintain or lose weight.
- **Study 1:** asked adults when they remember 1st binge eating. Majority responded in their childhood or early adolescence.
- There are many factors that promote childhood obesity: genetics, the community and environment, parenting. Could binge eating be one of those factors?

- Few children meet the DSM criteria for Binge Eating: 0-3%
- However, a fair amount report **Pediatric Loss of Control Eating (LOC)**:
 - LOC is the sense that one cannot stop or control how much they're eating
 - Prevalent among 2-40% of children and teens.
- **Study 2:** Interviewed children age 6-13 using the Eating Disorder Examination which was adapted for children.
 - 15% of overweight children reported LOC compared to 4% among non-overweight children.
- **What is LOC eating?** The definition is unclear and inconsistent and is often misinterpreted by teens and others.
- **Study 3:** assessed child eating episodes, asking the context of the episode (who, what, where), their emotions and behaviors
 - Interviewed 445 children between the ages of 8 and 18
 - 106 of the children reported that they overeat with a loss of control.
 - Children who overeat with a loss of control were more likely to: eat a forbidden food, not feel hungry, eat alone, be secretive and report negative emotion such as guilt and shame.
 - Children gave their own words (“numbing”, “block out”) which were quantitatively coded.
- **Is LOC an observable behavior?** Can you see it happen?
- **Study 4:** Lab design
 - Randomly assigned child to two test meals on two different days: one normal meal and one binge meal.
 - The only difference between the meals were the instructions given before eating:
 - In the normal meal condition the child was told to eat the meal like they normally would.
 - In the binge meal condition they were told to let themselves go and eat as much as they wanted.
 - The participants ate breakfast at 8:40 am with 288 kcal then waited six hours and ate their test meal at 2:30.
 - Test meal: food buffet with 10,000 calories including sandwiches, fruits and veggies, candy and chips and chicken nuggets
 - 50 children reported one LOC eating episode in the past month prior to the study.
 - More females than males reported one LOC episode.
 - **Results:**
 - Kids are significantly more at the binge meal than the normal meal, but there was no difference between LOC eaters and non-LOC eaters.
 - Children with LOC eating ate significantly less protein and more carbs at both meals; there were no differences in fat intake.
 - LOC eaters consumed more dessert foods (cookies, etc.) and less lunch foods while non-LOC eaters ate a basic lunch of a sandwich and drink.

- LOC eaters reported more post-meal negative affect such as anxiety.
 - In general there was no LOC eating effect; they didn't eat more. However, when you look at just overweight women there was an effect; women who were overweight and had LOC eating ate significantly more at the binge meal.
- **Does being overweight predict Loss of Control Eating? Or does Loss of Control Eating predict being overweight?**
- Found that LOC eating predicts weight gain
- Use LOC as a target for weight gain prevention
- **Pilot Program: Will a Binge Eating treatment program help prevent weight gain?**
- Chose to use **IPT treatment** program because it is based on an interpersonal model
 - People have interpersonal problems which they deal with by binge eating, thus treatment requires preventing weight gain by decreasing or eliminating LOC eating.
 - Overweight persons tend to be targets of negative social interactions and peer relationships that are crucial for teens, so addressing interpersonal problems seems like a good strategy.
 - An increase in interpersonal functioning will decrease negative affect which will decrease LOC eating which will lead to a maintenance or loss of weight.
- **Study 5:** Tested IPT treatment program to see: 1) if children liked and accepted the program and 2) if it stabilized weight.
 - Subjects: females, 12-17 with BMI in 75-97 percentiles (this group is most at risk to gain weight as they grow).
 - Two conditions: The IPT-WG (interpersonal psychotherapy of excess weight gain) and HE (health education) program which included topics such as skin care, nutrition, depression and substance abuse. It was important to keep IPT out of the program which can be difficult when students bring up personal issues.
 - Subjects were randomized to one of the two programs (19 in each group) which lasted for 12 weeks. There were also 3 follow-up assessments.
 - **Results**
 - All participants attended 80%+ of the sessions (received \$40 bonus for doing so).
 - In the one year follow-up more girls from the IPT group maintained their weight or lost some weight. It was just significant so it looks promising but not certain yet.
 - There was an increase in interpersonal functioning in both groups (no difference between).
 - There was an increase in affect with both groups.
 - There was also a decrease in LOC in both groups.

- What did we learn? That the program is feasible and accepted by participants. However these are tentative findings. We are running a new trial to test the questions we have.
- IPT treatment program may be one approach to reducing obesity rates. If so, the ultimate goal is to disperse program across schools.