

Oral Scientific Paper Session I
Thursday, May 2, 2013
2:45 – 4:15 p.m.

BED/Obesity

Relationship between Daily Mood Patterns and Overeating, Loss of Control Eating, and Binge Eating Episodes in Obese Adults

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The objective of the current study was two-fold: (1) To identify daily patterns of negative affect (NA) in obese individuals with and without binge eating disorder (BED); and (2) To determine whether daily affect patterns are related to overeating without loss of control (OE-only), loss of control eating without overeating (LOC-only), and binge eating (BE) episodes. Participants were 50 obese (BMI=40.3±8.5) adults (84% female), 12 of whom were diagnosed at baseline with lifetime full- or sub-threshold BED. Participants completed a two-week ecological momentary assessment protocol during which they completed momentary assessments of NA (PANAS) and indicated whether their eating episodes were characterized by OE and/or LOC. Latent growth mixture modeling (LGMM) was used to identify daily trajectories of NA. GEE analysis with negative binomial response function was used to determine whether daily affect trajectories were differentially related to the frequency with which OE-only, LOC-only, and BE episodes occurred. Forty participants (80%) reported at least one OE-only episode, 42 (84%) reported at least one LOC-only episode, and 48 (96%) reported at least one BE episode. The LGMM analyses identified nine unique trajectories of NA. Significantly higher frequencies of OE-only and BE episodes occurred on days characterized by high or increasing levels of NA (all $ps < .005$). There were no significant differences between classes with regard to the frequency of LOC-only episodes. These data support the hypothesis that momentary affective states are associated with OE and BE in obese individuals with and without BED and demonstrate that some daily patterns of NA (i.e., those characterized by high or increasing NA) may be more problematic with regard to OE and BE than others. These results suggest that identifying and targeting “problematic affect days” in treatment may be an effective approach to reducing the frequency of OE and BE episodes.

Learning Objectives:

- Describe daily patterns of negative affect reported by obese individuals with and without binge eating disorder.
- Differentiate between daily patterns of negative affect that are and are not associated with higher frequencies of overeating and binge eating episode.
- Consider the possible utility of identifying types of 'affect days' in the treatment of overeating and binge eating in the context of obesity.

Relationships Among Parent Feeding Styles and General Parenting Behaviors with Loss of Control (LOC) Eating in Children

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The mechanisms linking disordered eating and weight gain are largely unknown. In children, loss of control (LOC) eating has been associated with weight gain over time. Parents play a significant role in the development of eating behaviors; however, no data have examined the relationship between parent feeding styles and behaviors with LOC eating in children. Therefore, this study aims to evaluate the association between LOC, parent feeding styles, and general parenting in overweight and obese children. The Parental Feeding Styles Questionnaire and Child Feeding Questionnaire were administered to parents to assess parental feeding behaviors. The Child Report of Parent Behavior Inventory was used to measure parenting style dimensions. The Eating Disorder Examination child version was administered to assess LOC eating. One hundred and eighteen children (10.4 (1.4) y; 53% female; 52% Caucasian; BMI-z: 2.1 (.4)) and their parents (42.4 (6.2) y; 91% female; 70% Caucasian; BMI: 31.7 (7.0)) completed assessments at baseline as part of an overeating treatment study. Age, sex, race, and BMI were considered as covariates; only parent BMI was significantly associated with LOC eating ($p=.04$) and included in analyses. Forty-three (36.4%) children endorsed at least one episode of LOC eating in the previous month. Results showed that parents who engaged in restriction and pressure to eat were more likely to have children that reported LOC ($ps<.05$). Yet, parents who utilized instrumental feeding and prompting/encouraging to eat techniques were less likely to have children that reported LOC ($ps<.05$). Child-reports of higher firm but less psychological control were related to greater likelihood of LOC ($ps=.01$). Parenting behaviors were related to LOC eating in this sample of overweight children. Future research is needed to determine if interventions that target parental behaviors may reduce LOC eating, prevent full-syndrome eating disorders, and limit excess weight gain over time.

Learning Objectives:

- Describe the relationship among parent feeding styles, general parenting behaviors, and loss of control (LOC) eating in a sample of overweight and obese children.
- Distinguish specific parental feeding styles and behaviors that are related to an increased likelihood of child-reported LOC from those associated with a decreased likelihood of LOC, in order to better understand potential risk and protective factors.
- Explore and interpret the study finding that parental BMI was related to child-reported LOC eating, independent of child BMI.

Impact of Overweight Children's Social Networks on Family-based Behavioral Weight Loss Treatment Outcomes

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Social networks may influence the development of obesity, but little is known about their role in weight loss treatment response, especially among children. The present study assessed overweight and obese children's social network factors in relation to weight loss outcomes following family-based behavioral weight loss treatment (FBT). Child-parent dyads ($N=177$) completed 4-month FBT and post-FBT assessments as part of a weight maintenance trial. Interviews to assess children's social network size, support for healthy behaviors, and support for obesogenic (unhealthy) behaviors were conducted at baseline and post-FBT, as were measurements of weight outcomes (percent overweight [%OW], BMI z-score [zBMI]). Linear regression was used to assess the impact of baseline and changes in social network factors (size, healthy support, and obesogenic support) on baseline and changes in %OW and zBMI while controlling for confounding variables (gender, baseline %OW / zBMI). Baseline social network factors did not predict baseline or change in %OW or zBMI ($p's>.52$). Smaller (vs. larger) increases in social network size and decreases in obesogenic support predicted reductions in %OW ($p<.01$) and zBMI ($p=.05$). The lack of relation between children's baseline social network factors and weight variables may be due to the restricted weight range of the sample, as all children were overweight or obese. Given our finding that changes in social network size or obesogenic support impact weight loss, addressing and reducing sources of unhealthy influence within children's social networks may promote adherence to treatment targets and enhance FBT response. The mechanisms by which social network factors impact FBT outcomes, and their best use in tailoring treatment for individual families, warrant further exploration.

Learning Objectives:

- Evaluate the impact of social network factors (network size, healthy/obesogenic support) in family-based behavioral weight loss treatment response.
- Define social network factors related to network size, support for healthy behaviors, and support for obesogenic (unhealthy) behaviors.
- Discuss implications of the role of social network factors and recommended practices for delivery of family-based behavioral weight loss treatment.

Overvaluation of Weight Among Overweight Girls with Binge Eating Disorder

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Although understudied among adolescents, overvaluation of weight, which is a diagnostic criterion for bulimia nervosa, is associated with greater eating disorder psychopathology and depression levels among adults with binge eating disorder (BED). We first determined whether overvaluation of weight was associated with increased risk of BED in an overweight population of adolescent girls. To examine the significance of overvaluation as an indicator of BED severity, we then explored whether the risk of high depressive symptoms and low subjective social status differed between girls without BED, those with BED but without overvaluation, and those with BED and overvaluation. Study participants were 1061 overweight girls participating in the 1999 and 2001 waves of the Growing Up Today Study (GUTS). In 1999, participants were between the ages of 12-18 and had a mean (sd) BMI of 26.2 (2.5). In 1999 and 2001, 25.5% and 34.8% of participants reported overvaluation of weight, respectively. Overweight girls with overvaluation of weight were more likely to have BED (odds ratio (OR)=4.4, 95% confidence interval (CI)=2.1-9.5) than overweight girls without overvaluation. Results from age- and BMI-adjusted analyses indicate that girls with BED and with overvaluation of weight were more likely to report high depressive symptoms than girls without BED (OR=8.9, 95% CI=3.5-22.6) and girls with BED but without overvaluation (OR=6.6, 95% CI=1.2-35.7). Girls with BED and with overvaluation of weight were also more likely to report low subjective social status than girls without BED (OR=4.1 95% CI=1.7-9.4) and girls with BED but without overvaluation (OR=11.4, 95% CI=1.1-113.5). Our findings among overweight girls suggest that overvaluation of weight is associated with BED and that overvaluation of weight among girls with BED may signal greater depression and lower sense of social status. These new findings for adolescent girls are consistent with previous research conducted among adults.

Learning Objectives:

- Summarize findings of previous research on overvaluation of weight/shape conducted among adults.
- Explain the relationship between overvaluation of weight and binge eating disorder among a sample of overweight adolescent girls.
- Describe how the risk of high depressive symptoms and low subjective social status differs between girls without BED, those with BED but without overvaluation of weight, and those with BED and overvaluation of weight.

The Prevalence of Non-Normative Eating Behaviors after Bariatric Surgery and Their Impact on Weight Outcomes

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Bariatric surgery alters significantly eating behavior (EB), but the presence of non-normative EBs post-operatively seems to compromise weight outcomes. However, little is known about how non-normative EBs change over time. This study investigates the point prevalence of picking and nibbling (P&N), subjective (SBE) and objective (OBE) binge eating before and after surgery, and their impact on weight outcomes. This cross-sectional study analyzed weight outcomes and EB of bariatric patients assessed before (N=60), and postoperatively from 5-10 months (N=22); 11-21 (N=35); 22-34 (N=49); and ≥ 35 (N=22) months after surgery. The EDE was used to assess eating disordered behaviors. In the first ten months after surgery a lower percentage of participants reporting the different non-normative EB was observed, which seems to be reversed in the subsequent follow-up times. P&N was the most reported non-normative EB in the assessments ≥ 10 months. The highest prevalence of SBE was at 22-34 months at >35 months for OBE. P&N and SBE were significantly associated with weight regain; P&N and OBE were significantly associated with weight loss. Despite the lower scores in disordered EBs during the initial months after surgery, a subgroup of patients will postoperatively develop non-normative EBs that are associated with poorer weight outcomes. Particularly, the presence of P&N - an under-reported behavior- seems to be significantly associated with both weight loss and weight regain. The early detection of these EB might hold the key for the prevention of weight regain after bariatric surgery.

Learning Objectives:

- Present non-normative eating behavior present in the bariatric surgery population.
- Describe the prevalence of the different eating behaviors in different time points from pre to long-term follow-up.

- Describe the association between eating behaviors, weight loss and weight regain.

Exploring Predictors of Post-gastric Bypass Surgical Outcomes with Receiver Operating Characteristic (ROC) Curve Analysis

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A significant minority of bariatric surgery patients experience suboptimal weight loss and/or surgical outcome failure (defined as losing less than 50% of excess body weight). Available research links 4 domains with suboptimal weight outcomes: 1) pre-surgical variables (e.g., BMI); and post-surgical adherence to guidelines for 2) diet; 3) exercise; and 4) attendance at surgical follow-up appointments. Participants (n=274) who completed a self-report online survey were 1-12 years [5.8 (SD=3.1)] post-gastric bypass surgery, 51.1 (SD=8.4) years of age, 95.6% female, 88.7% white, and 21.5% surgical failures. A total of 84 variables spanning the 4 domains were entered into a receiver operating characteristic (ROC) curve analysis which identified 3 significant predictors of surgical failure: two within the dietary domain and one within the pre-surgical domain. No exercise or clinic attendance variables were selected by the ROC. The highest surgical failure rate (72.4%) was among those with low global dietary adherence who also reported grazing (repeatedly eating small amounts) more than once a day. This failure rate was reduced by more than half (31.7%) when grazing was less frequent (at maximum daily). Failure rates were further reduced (14.8%) in this group (i.e., low dietary adherers and less frequent grazers) when their highest lifetime pre-surgical BMIs were less than 53.7 kg/m². The lowest likelihood of surgical failure (7.4%) was in participants reporting higher dietary adherence and lower grazing frequencies. However, this failure rate rose nearly 5 times (36.4%) when high dietary adherers were grazing more than once a day. Results suggest that global dietary adherence, grazing, and highest lifetime BMI contribute to rates of post-gastric bypass surgery failure. Systematic inquiry into such signals may inform post-bariatric interventions and prospective outcome study designs.

Learning Objectives:

- Recognize ROC identified pre- and post-bariatric study variables most strongly associated with surgical outcome failure in adult participants with at least 1 year since surgery.
- Describe the four domains, according to the post-bariatric surgery research literature, that are most often associated with suboptimal weight loss outcomes.
- Appraise and consider results' practical implications for future treatment outcome research.

Body Image & Prevention I

I'm Not Just Fat, I'm Old: Have We Been Overlooking The Problem of "Old Talk" In Body Image?

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Numerous studies have demonstrated that body dissatisfaction is correlated with and often predictive of both physical and mental health problems. Fat talk, a well-studied form of body image talk in adolescents and university-aged women, has been implicated as contributing to body dissatisfaction, and recent research suggests it mediates the relationship between body dissatisfaction and other mental health problems. Other forms of body image talk, however, have not been thoroughly studied, or even labeled in some cases. The current study investigated whether or not old talk, a hereto un-described form of body image talk, appears to be a parallel, but distinct, form of body image talk that taps into the young dimension of the thin-young-ideal standard of female beauty. Because limited research has investigated fat talk across the female lifespan, this study also investigated fat talk. An international, internet sample of women (age 18-87, N=914) completed questionnaires aimed at assessing fat talk, old talk, body image disturbance, and eating disorder pathology. Results indicated that both fat talk and old talk were reported by women across the lifespan, although they evidenced different trajectories of frequency. Like fat talk, old talk was significantly correlated with body image disturbance and eating disorder pathology, albeit at a lower rate than fat talk in the total sample. Old talk was more highly correlated with ageing appearance anxiety than fat talk in the total sample, and the correlation between old talk and body image disturbance and ED pathology increased with women's ages. Results suggest that old talk is a form of body image talk that is related to but distinct from fat talk. Further research into the phenomenon of old talk is warranted as is increased attention to fat talk across the full lifespan of women.

Learning Objectives:

- Explain the relationship between fat talk body image.
- Describe to what old talk refers.

- Explain similarities and differences between fat talk and old talk in terms of content, frequency across the female lifespan, and correlation with body image variables.

The Old and the New of Eating Disorder Prevention: Preliminary Findings from a Randomized Controlled Trial of Dissonance and Mindfulness-Based Programs

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The primary objective of this study was to evaluate a mindfulness-based prevention program against an established dissonance program with regard to reducing risk for disordered eating. Adolescent girls ($N = 417$, $M_{\text{age}} = 15.86$, $SD = 0.68$) from four high schools were randomly allocated by class to receive either a mindfulness or dissonance-based program, delivered universally, or lessons as normal (assessment-only control). Standardized measures of eating disorder behaviors and related risk factors were scheduled at baseline, post-program, 1-month and 6-month follow-up. Controlling for baseline, results at post-program showed significant group differences over time for weight concerns ($F(2, 273) = 5.46$, $p = .005$), with dissonance showing a greater reduction than control ($p = .004$). No other variables demonstrated significant interactions, however main effects of time for dietary restraint, mindfulness, self-compassion, emotion dysregulation, escape-avoidant coping, media internalization, and media pressure indicated overall improvement across groups. Improvements evident within the control group may suggest the presence of cross-contamination between classes or an impact of assessment. This project is ongoing and further analysis is required, however, these early findings validate continued evaluation of mindfulness in this context.

Learning Objectives:

- Contrast the use of dissonance and mindfulness approaches to eating disorder prevention.
- Identify and differentiate key risk-factors amenable to change by dissonance and mindfulness.
- Reflect on the application of mindfulness in an adolescent context.

Media Smart? Evaluating a Government Endorsed Media Literacy Body Image Intervention Among 10-11 Year Old Girls and Boys in the United Kingdom

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The British Government has recently made policy recommendations for non-legislative strategies which aim to promote positive body image and to reduce rates of eating disorders in the UK. In partnership with Media Smart, a non-profit media literacy organisation, the Government developed and disseminated a free media literacy lesson designed to improve body image among 10-11 year old primary school children. Since September 2011, the lesson has been downloaded by over 1500 schools, despite no evidence demonstrating its effectiveness. The purpose of this study, therefore, was to evaluate the impact of the lesson on children's body image. A total of 204 children (94 girls, 110 boys) in Year Six classes from six primary schools in south-west England were randomly assigned to receive the lesson or to a waitlist control group. Children completed baseline validated measures of body image (weight and appearance evaluation), media influence (awareness, pressure, internalisation) and intervention topic knowledge 1-week pre-intervention, immediately post-intervention, and at 7-13 weeks follow-up. Mixed-model MANCOVAs found no significant improvements in body image or media influence for the intervention condition relative to the control condition over time. There was a significant interaction for topic knowledge, with follow-up comparisons showing improvement in the intervention condition on one of six items measuring topic knowledge for boys ($<.001$) and girls ($<.05$). In summary, the media smart lesson was ineffective in improving body image and reducing media influence. The dissemination and Government endorsement of an ineffective intervention presents a missed opportunity for improving body image among primary school children. In order to avoid this in future, new initiatives must consider the current evidence, draw upon the lessons learnt from the failure of early eating disorder prevention programs and be evaluated prior to national dissemination.

Learning Objectives:

- Describe the UK Government's strategy to reduce disordered eating and body dissatisfaction within the UK.
- Evaluate the effectiveness of a brief media literacy lesson on body dissatisfaction among pre-adolescent girls and boys.
- Identify key steps to developing effective body dissatisfaction prevention programs among pre-adolescents.

Me, You & Us: A Novel Universal Prevention Programme that Improves Risk Factors for Eating in Adolescents

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Universal prevention programmes delivered through existing school networks offer the opportunity of wide dissemination with small costs. The aim of this study was to assess whether a novel universal school intervention called Me, You & Us reduced risk factors for eating disorders. This intervention augments established media literacy and self esteem approaches with positive psychology initiatives that have shown promise in intervention for affective disorders. This six lesson intervention targets media internalization, peer appearance conversations, low mood and self esteem, and is delivered by trained school teachers. The efficacy of Me, You & Us was tested in a clustered randomized controlled trial in which 446 adolescent girls (mean age = 13.03, s.d. = 0.57) were assigned to intervention or curriculum-as-usual control. Questionnaire based assessments of risk factors for eating disorders were administered at pre-intervention, post-intervention and three month follow up. There were significant improvements in body esteem, internalization of thin ideal and self esteem in those receiving the intervention compared to controls, with differences largely maintained at three month follow up. No group differences were observed in the frequency of appearance conversations, depressive symptoms, perceptions of peer support or eating pathology. The findings suggest that Me, You & Us is a promising new prevention programme for eating disorders. Further work considering active ingredients and longer term follow-up would be valuable.

Learning Objectives:

- Summarize existing literature on universal prevention programmes for eating disorders in adolescence.
- Evaluate the efficacy of a novel universal intervention for eating disorders.
- Recommend future research using universal interventions in the prevention of eating disorders.

Does Media Literacy Mediate Intervention Effects in a Peer and Media Literacy Body Dissatisfaction Prevention Intervention for Early Adolescent Girls?

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Media literacy approaches for body dissatisfaction prevention facilitate critical analysis of media images and development of skills to resist persuasive appearance ideal messages portrayed in media. It is assumed that media literacy works by reducing internalisation of the thin-ideal and appearance comparison tendency, however, these assumptions have not been directly tested. This study aimed to examine if participation in Happy Being Me, a peer and media literacy prevention intervention, reduced internalisation and comparisons, and whether these effects were mediated by change in media literacy. Female grade 7 students randomly allocated to intervention (N=244) or control (N=244) conditions completed self-report measures of media literacy, internalisation of media ideals, and appearance comparisons at baseline, post-program, and 6-month follow-up. Significant improvements in the intervention, relative to control condition from baseline to 6-month follow-up were revealed for internalisation ($F=5.381(1, 332), p=.021$, partial eta squared = .016), and comparisons ($F=10.21(1, 312), p=.002$, partial eta squared = .032). Bias corrected bootstrap analyses tested indirect effects of the Happy Being Me intervention on internalisation and comparison outcomes, via the mediating effects of media literacy change. Indirect effects via media literacy (baseline to post-program change) were significant for baseline to 6-month follow-up change in internalisation ($\beta = -.044$, bias corrected 95% CI (-.091, -.015), and comparisons ($\beta = -.031$, BC 95% CI (-.072, -.005). The direct effect of the intervention on internalisation and comparisons was reduced in the mediated models, indicating partial mediation. The results from this study have provided valuable evidence for causal mechanisms of change in prevention interventions and contribute to an understanding of the ways in which media literacy interventions lead to positive effects in the reduction of body dissatisfaction risk factors.

Learning Objectives:

- Understand the media literacy concept.
- Analyse the effectiveness of school-based prevention on risk factors for body dissatisfaction, internalisation of the thin ideal and appearance comparisons.
- Describe the contribution that change in media literacy makes to improvements in outcomes for internalisation and appearance comparisons following a peer and media literacy body dissatisfaction prevention intervention.

Y's Girl: Increasing Body Satisfaction Among Primary School Girls

Rachel Rodgers, PhD, Northeastern University, Boston, MA, USA; Amy Ross, MA, La Trobe University, Melbourne, Australia; Susan Paxton, PhD, FAED, La Trobe University, Melbourne, Australia

Objective: While increasing research attention has been paid to the development of body image concerns in preadolescent girls, to date, effective body image interventions for primary school girls are lacking. The present

study sought to evaluate the effectiveness of Y's Girl, a published body image curriculum specifically tailored for elementary school girls. **Methods:** A sample of 60 grade 6 girls of mean (SD) age 11.25 (0.44) years were allocated either to an intervention (n = 37) or a control group (n = 23), and completed baseline and posttest measures of body image dissatisfaction, thin-ideal internalization, body comparison, self-esteem, peer factors, and disordered eating. Girls assigned to the intervention group completed Y's Girls, a six session intervention focusing on age-appropriate risk-factors for preadolescent girls. **Results:** Condition x Time ANOVAs revealed that, compared to the control group, girls receiving the intervention reported improved body satisfaction (p<.001), thin-ideal internalization (p<.003), body comparisons (p<.004) and self-esteem (p<.005) at posttest 4 weeks later. Furthermore, a median-split analysis on baseline body satisfaction levels revealed that high-risk status girls benefited from the intervention to a greater extent in terms of self-esteem and body satisfaction (p<.05). **Conclusions:** These findings provide initial support for Y's Girl as an effective, affordable body image intervention for elementary girls which can be implemented by teachers. Preadolescence is an optimal developmental period for the implementation of such programs and Y Girl's is a curriculum that could assist in filling the gap in available body image prevention resources for this age group.

Learning Objectives:

- Recognize the need for effective prevention interventions for preadolescent girls.
- Examine the effectiveness of Y's Girls.
- Recommend the dissemination of this curriculum that can be implemented by teachers.

Comorbidity

Type 1 Diabetes in Eating Disorder Treatment: A Challenging Combination

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Women with type 1 diabetes (T1D) are at high risk for eating disorders, a dangerous combination which can compromise diabetes management and increase medical complications and mortality. However, little is known about the response to treatment in this population. A chart review of assessments at the Ambulatory Care for Eating Disorders Program at Toronto General Hospital identified all individuals with T1D 1990-2011. 98 individuals with T1D were assessed. Age was 17.0-54.0 years. Insulin omission for weight loss was reported at consultation by 69.4% (68/98) and by 87.5% (28/32) of day hospital attenders. Diagnosis at consultation was: bulimia nervosa 45.9% (45/98), anorexia nervosa 10.2% (10/98), EDNOS 30.6% (30/98), subthreshold eating disorder 5.1% (5/98), and no eating disorder 8.2% (8/98). Of these 98 individuals, 32 attended day hospital. 31.3% (10/32) completed treatment with good outcome (weight restored and symptom-free for last 28 days of treatment), 40.6% (13/32) had a poor outcome (dropped out or still meeting diagnostic criteria at discharge), and 28.1% (9/32) had an intermediate outcome. This is poorer than program outcomes in non-diabetic individuals. Women with T1D most often present with syndromes of binge-eating and insulin omission. The majority offered day hospital treatment are not able to achieve symptom remission. Factors influencing treatment engagement and outcome should be further examined in this high-risk group.

Learning Objectives:

- Recognize common clinical features in individuals with eating disorders and diabetes.
- Describe the clinical outcome of specialized eating disorder treatment in individuals with diabetes.
- Recognize the importance of concurrently addressing diabetes management needs during eating disorders treatment.

Symptoms of Depression and Anxiety in Anorexia Nervosa: Links with Plasma Tryptophan Levels and Serotonin Metabolism

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Depression, anxiety and obsessive-compulsive symptoms frequently co-occur with anorexia nervosa (AN) in the acute phase of the disorder. The relationship between these clinical manifestations and the biological changes brought about by severe malnutrition is not well understood. It has been hypothesized that reduced availability of tryptophan (TRP), an essential amino acid precursor of serotonin, could reduce serotonin activity and trigger these symptoms. The aim of this study is to analyze jointly the evolution of depression and anxiety symptoms, nutritional status and peripheral serotonin markers during refeeding in AN. Depression and anxiety symptoms, nutritional status (BMI, fat mass and fat free mass measured by bioelectrical impedance analysis) and serotonin markers (whole blood serotonin concentration, plasma tryptophan and the ratio between TRP and other large

neutral amino acids (TRP/LNAA)) were assessed for 42 anorexic patients in the acute phase, at admission for inpatient treatment, then after refeeding. Biological measures were compared to 42 healthy controls matched for age and gender. Clinical, nutritional and biological parameters significantly improved during hospitalisation. All serotonin markers were significantly lower in the AN group compared to control group, at admission and at discharge. The increase of the TRP/LNAA ratio was correlated with the decrease of depression symptoms. Moreover, there was a positive correlation between anxiety symptoms and whole blood serotonin at discharge. The rise of TRP availability during refeeding, through the increase of the TRP/LNAA ratio, could restore serotonin transmission and induce a decrease of depression symptoms. Likewise, the association between anxiety symptoms and whole blood serotonin could point out an abnormal functional activity of the serotonergic system responsible for anxiety symptoms often mentioned in AN. More studies are needed to validate these results.

Learning Objectives:

- Describe the comorbidity of depression, anxiety, obsessive-compulsive symptoms and anorexia nervosa in the acute phase then after refeeding.
- Analyze jointly the evolution of depression and anxiety symptoms, nutritional status and peripheral serotonin markers in anorexia nervosa during refeeding.
- Assess the role of serotonin and tryptophan, an essential amino acid precursor of serotonin, in symptoms of depression and anxiety in anorexia nervosa.

Tailored Treatment for Different Needs: Psychiatric Comorbidity in Patients with Eating Disorders

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The purpose of the study is to explore the comorbidity in patients with ED. Comorbidity is common among patients with eating disorders (ED) However, research in the area has been sparse and no previous studies include both children and adults, and both genders. Data from the Stepwise quality control database, a large-scale Internet based data collection system for specialized ED care in Sweden, were used. The database includes data from children and adults and both genders. Stepwise contains structured diagnostic interviews for ED- and other DSM-IV Axis I diagnostics (the Structured Eating Disorder Interview and the M.I.N.I.Kid and SCID-I interviews). The system is used in 35 treatment units (in and out patients) and comprises up to date 4136 patients from all over Sweden. 96% of the patients were women and 4% were men. 72% of the patients with ED also had at least one other Axis I disorder. The most common type of diagnosis was anxiety (53%) followed by mood disorder (48%). 9% had substance use disorders. In the group under 18 mood disorders were the most common diagnosis (56%) and in the group over 18 anxiety disorders were most frequent(58%). In the female group 72% had at least one other Axis I disorder compared to 70% in the male group. Anxiety disorders is the most common diagnosis in both males and females. Differences regarding comorbidity and specific ED diagnosis were observed when studying the entire group. For example, patients in the BED and BN category screened for more mood disorders, anxiety disorders and substance related disorders compared to the ANR group. This study confirms previous results showing that the prevalence in co-morbidity is high among patients with ED. The high level of co-morbidity in patients with ED may change the approach in treatment and calls for more tailored treatment programs where differences in age, gender, ED and comorbidity diagnosis needs to be considered.

Learning Objectives:

- Describe comorbidity of DSM-IV Axis I disorders and Eating Disorders.
- Describe comorbidity, differences and similarities, in DSM-IV Axis I disorders and eating disorder regarding both children and adults and both genders.
- In the long term the high level of co-morbidity in patients with ED may change the approach in treatment and calls for more tailored treatment programs where differences in age, gender, ED and comorbidity diagnosis needs to be considered.

Associations Among PTSD, Partial PTSD, Eating Disorders and Substance Use Disorders in Women and Men in the National Comorbidity Survey - Replication Study

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Individuals with eating disorders (EDs) characterized by bulimic symptoms have been reported to have higher rates of substance use disorders (SUDs), and conversely, individuals with SUDs have higher rates of EDs, particularly with bulimic symptoms. Although each group of disorders has been reported to have high rates of PTSD or partial/subthreshold PTSD, little is known about the rates of PTSD and partial/subthreshold PTSD in this clinically challenging group. Using data generated from the National Comorbidity Survey - Replication Study, we tested the hypothesis that PTSD and partial or subthreshold PTSD (any PTSD) occur at significantly greater frequencies in individuals who are comorbid for an ED (AN, BN, BED, any binge eating, or any ED) and

a SUD (alcohol abuse, alcohol dependence, drug abuse, drug dependence, and a composite variable representing endorsement of “any SUD”). We performed chi-square analyses on these variables (ED x SUD) for women and men separately looking at the rates of SUDs in individuals with neither disorder, an ED only, PTSD or any PTSD only, or both disorders (ED + PTSD/any PTSD). We corrected for the number of analyses done and used $\alpha = 0.01$ as our statistical cutoff for significance. The rates of any SUD were highest in women and men who were comorbid for 1) any ED and PTSD; 2) any ED and any PTSD; 3) any bingeing and PTSD, and; 4) any bingeing and any PTSD. These results suggest that the considerable overlap between EDs and most SUDs may be due, at least in part, to a history of trauma and the presence of PTSD or any significant PTSD symptom clusters. This relationship is especially true for EDs characterized with bulimic symptoms, i.e., binge eating and purging, since the great majority of individuals with EDs identified in the NCS-R had either BN, BED or any bingeing (84% of women and 93% of men).

Learning Objectives:

- Summarize results showing higher rates of substance use disorders in patients with eating disorders, and vice-versa.
- Describe findings from the National Comorbidity Survey - Replication Study that demonstrate higher rates of any substance use disorders in individuals with both an eating disorder (especially any bingeing) and PTSD or any PTSD.
- Evaluate etiological and clinical implications of the important links between trauma, PTSD, PTSD symptoms and EDs with SUDs.

Genetic Determinants of Low Body Weight in Anorexia Nervosa

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The purpose of this study is to determine the genetic factors that contribute to patients with anorexia nervosa's capacity to maintain an abnormally low body weight. Only anorexia nervosa (AN) probands with no history of bulimia nervosa (BN) and BN probands with no history of AN are included in this analysis, reducing phenotypic heterogeneity within groups and increasing diagnostic differences between groups. The sample consisted of 788 AN probands with no history of BN, 278 BN probands with no history of AN, and 325 female nonpsychiatric controls. We conducted a candidate gene analysis and high throughput sequencing of candidate genes selected from the leptin, melanocortin and neurotrophin systems. Preliminary results indicated that AGRP gene was associated with lowest lifetime body mass index (BMI) and MC3R was linked to a higher maximum lifetime BMI in AN patients. In addition, NTRK3 risk variant was more common in AN compared to BN subjects. The results of the high throughput sequencing of candidate genes will also be presented. To our knowledge, this is the first study to address the important issue of high crossover rates in eating disorders being a possible confound in genetic studies. It is also the first study to explore the role of various markers with known or putative function in genetic systems known to regulate appetite and weight in AN and BN. These genetic findings associated with low body weight may serve as an important first step toward gaining a better understanding of weight regulation in AN, BN, and healthy populations, including the possible identification of genetic protecting factors. These findings have the potential for developing more effective treatment options and more specifically for providing a highly specific target for the development of novel medications.

Learning Objectives:

- Identify the genetic factors associated with low weight in anorexia nervosa compared to bulimia nervosa and controls.
- Understand the role these genetic factors may play in contributing to the maintenance of low weight in anorexia nervosa.
- Translate these genetic findings into possible clinical implications for the treatment of eating disorders.

Illness-Related Emotional Avoidance and Eating Disorder Symptom Maintenance Among Individuals with Type 1 Diabetes

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Type 1 Diabetes (T1D) is a chronic endocrine disorder that carries significant psychological and physical burden. In addition to daily blood checks, subcutaneous insulin dosing, and precise management of diet and exercise, the disorder imposes increased risk for neurologic, peripheral vascular, cardiovascular, and ophthalmic disease. EDs

are relatively common among individuals with T1D and associated with worse outcome, predicting early and severe neuropathy, retinopathy and nephropathy. Mortality risk is also elevated with this comorbidity due to the dangerous practice of withholding insulin to allow food intake without subsequent weight gain. Factors that contribute to ED maintenance in this population are unknown; and extant ED treatments have been largely ineffective for improving diabetes-specific outcomes. We describe multiple datasets that suggest that emotional avoidance, specifically attempts to avoid or attenuate emotional distress associated with having diabetes, contributes to ED symptom maintenance. First, we describe a survey study of 270 individuals with T1D in which diabetes-related avoidance (e.g., I avoid reminders that I have diabetes) was associated with ED symptom severity, $F(1, 269) = 134.63, p < .001, R^2 = .33$. Second, we present early results from an ecological momentary assessment study that suggests diabetes-related distress co-occurs and precipitates ED behavior (Ro1DKo89329, Merwin). The current sample includes 17 T1D patients reporting on 214 eating episodes over a 72 hour period. In this sample, diabetes-related avoidance accounted for 47% of the variance in ED symptom severity. Momentary loss of control over eating was predicted by violation of diabetic dietary “rules,” $F(1, 160) = 21.33, p < .001, R^2 = .12$, and related to increased diabetes-related distress, $r = .28, p < .001$. The experience of loss of control increased odds of omitting insulin for the eating episode by 2.12 times. Clinical implications will be discussed.

Learning Objectives:

- Describe the prevalence and manifestation of eating disorders among individuals with T1D.
- Review emerging evidence of illness-related emotional avoidance in the maintenance of this comorbid condition.
- Identify implications of recent findings for treating ED in the context of T1D.

Risk Factors

The Role of Drinking Intentionality on the Association between Alcohol Consumption and Binge Eating Among College Students

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The present study examined the association between nighttime binge eating and alcohol use, with the intent to drink as a moderator, in a college sample using a daily diary approach. The sample ($N = 388$; 52% female) was part of a larger study of daily experience and alcohol use. To be eligible for the study, participants had to be between the ages of 18 and 25 ($M = 19.3$) and reporting a minimum alcohol consumption frequency of twice in the past month. The sample was primarily Caucasian (79%) and in their first two years of college (73%). Each day for 30 days participants accessed a secure website and completed a brief survey between the hours of 2:30 – 7:00 PM. Relevant to the current study, participants reported on binge eating and alcohol use (a) for the previous night (after completion of the previous day’s survey) and (b) up to reporting time that day. Participants also reported their intention to drink later that day. Analyses focused on predicting nighttime binge eating from nighttime alcohol use and intention to drink; models controlled for sex and early day binge eating. Results indicated that intention to drink moderated the effect of nighttime drinking on the likelihood of nighttime binge eating ($p = .032$). Specifically, binge eating and alcohol use were more strongly positively correlated on days when the intent to consume alcohol was low. Gender did not moderate this interactive effect. Findings showing an overall positive association between nighttime drinking and binge eating are consistent with theories positing that the disinhibiting effects of alcohol intoxication increase the likelihood of binge eating. The stronger association between drinking and binge eating on low drinking intention days also raises the possibility that on such days both behaviors might be influenced by other factors related to reduced self control and governed by processes that are less effortful and more automatic.

Learning Objectives:

- Describe the day-level association between nighttime binge eating and alcohol use.
- Examine the influence of intent to drink on the association between drinking and binge eating.
- Examine the moderating effect of gender on the associations of interest.

Shooting the Breeze with My Best Friend: What Female College Students Talk about in Intimate Female Friendships and Relations with Disordered Eating Attitudes and Behaviors

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Female friendships are an important source of support for college women; however, via phenomena like fat talk, aspects of close relationships can also have negative effects. In this study, we explore how often college women talk with their closest female friend about dieting, binge eating, working out, and comparing oneself; in what qualitative ways women talk about these topics; and whether talking about these topics is related to disordered eating attitudes/behaviors. Participants were 441 female college students at a Southeastern university who completed an online survey regarding whether they talked with their best female friend about dieting (e.g., reducing caloric intake, changing the types of foods eaten), binge eating, exercising/working out, and comparing their bodies to others or the media. Those who did and did not engage in conversations on these topics were compared on disordered eating attitudes/behaviors (EAT-26 and EDE-Q). Results indicated that in this sample, 56% talked with their best friend about dieting, 14% about binge eating, 89% about working out, and 22-39% about comparisons (to other peers, to media images). Qualitative data (not presented here) sheds light on how these topics were discussed. Those who talked about dieting, binge eating, or body comparisons in these intimate friendships had significantly higher EAT-26 scores, more days of binge eating, and greater weight/shape concern than those who did not converse on these topics with close friends. Those who talked about working out were only significantly higher on weight/shape concern. These findings suggest that exploring the nature of conversations in close friendships may be valuable in better understanding problematic attitudes and behaviors related to eating and the body. Future work should examine the degree to which these conversations precede and/or maintain disordered eating and whether there is a self-selection bias in seeking out these topics with close friends.

Learning Objectives:

- Report the prevalence of topics of conversation related to dieting, binge eating, working out, and comparisons in the context of best female friendships.
- Compare different ways that college females talk with their closest female friends about dieting, binge eating, working out, and comparisons.
- Relate conversation topics in intimate female friendships to disordered eating attitudes and behaviors.

Dissecting Childhood and Adulthood Obsessive Compulsive Personality Traits in Eating Disorders Using a Discordant Sister Pair Design: a Multicenter European Study

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Objective: To refine and identify genetic, behavioral and cultural underpinnings of childhood and adulthood OCPD traits by performing integrated research across various ED subtypes. Method: In part A of the study 147 discordant sister pairs for EDs [Anorexia Nervosa-Restricting (AN-R)=37; AN-Binge Purging (AN-BP)=61; Bulimia Nervosa-Purging (BN-P)=42] were interviewed (using the EATATE) about their childhood and adulthood obsessive compulsive personality traits (OCPD). In part B the same OCPD traits were assessed in 320 ED patients (AN-R=89; AN-BP=136; BN=89) and in addition the EDI-2 and TCI-R were administered. DNA was also collected and four candidate genes (5-HT_{2A}, BDNF, 5-HTTLPR, and DRD4) were genotyped. Whereas part A assessed differences between patients and sisters, part B compared ED patients with OCPD traits to ED individuals without these traits. Results: The ED patients scored significantly higher than their healthy sisters on most childhood and adulthood OCPD traits ($p < 0.05$). As regards to ED subdiagnoses, AN-BP patients scored significantly higher than the AN-R and BN-P individuals ($p < 0.05$). A longer duration of dieting and exercising, higher levels of body dissatisfaction and drive for thinness and a negative personality constellation were positively related to OCPD traits ($P < 0.05$). Cultural variations were also observed with the UK displaying the highest values for all of the assessed traits ($p < 0.05$). Finally no significant findings were obtained for the candidate genes assessed. Discussion: OCPD traits provide a robust characteristic of EDs, especially for AN-BP individuals. These traits along with certain ED symptoms and related maladaptive personality profiles may provide an improved understanding of the topography and etiology of EDs.

Learning Objectives:

- Assess whether ED patients would present with more childhood and adulthood OCPD traits than their healthy sisters.
- Examine whether there are differences in childhood and adulthood OCPD traits across ED subtypes and whether there are cross-cultural variations in OCPD traits across various European countries.
- Investigate whether OCPD traits were related to the duration and severity of ED symptoms and maladaptive personality traits; and whether OCPD traits were associated with the following candidate genes: 5-HT_{2A}, BDNF, 5-HTTLPR, and DRD4.

Predictors of Disordered Eating during Adolescence and Young Adulthood: A Population-Based, Longitudinal Study Among Norwegian Males and Females

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The main objective of this study is to investigate longitudinal predictors for disordered eating across gender and developmental phases among Norwegian youth, from early adolescence to young adulthood. Data from the national representative longitudinal study “Young in Norway” (ages 12–34 years) were analyzed using linear regression and random intercept models. Initial disordered eating, BMI, appearance satisfaction and self-concept instability were significant predictors for disordered eating across developmental stages and in both genders. Self-worth and perceived parental overprotectiveness were specific significant predictors for mid-adolescent females, as were negative affectivity for mid- and late adolescent and young adult males, illicit drug use for mid-adolescent males and loneliness for late adolescent males. Moreover, parental overprotectiveness in mid-adolescence and appearance satisfaction in young adulthood had significantly larger impacts in females than males, whereas illicit drug use in mid-adolescence and loneliness in late adolescence were more strongly related to disordered eating in males than females. The study findings ascertain a need for targeted prevention strategies that focus on multiple and specific risk factors across developmental phases and gender.

Learning Objectives:

- To explain risk factors of disordered eating across developmental phases from early adolescence to young adulthood.
- To assess risk factors of disordered eating among males and females at each developmental phase from early adolescence to young adulthood.

Daily Patterns of Anxiety in Anorexia Nervosa: Associations with Eating Disorder Behaviors in the Natural Environment

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Recently, the role of emotion in eating disorders (EDs) has received greater theoretical and empirical attention. In particular, anxiety has been emphasized in several models of the etiology and/or maintenance of anorexia nervosa (AN). This study sought to identify daily patterns of anxiety in AN and to examine (a) the likelihood of the occurrence of ED behaviors in each identified anxiety trajectory and (b) the temporal distribution of ED behaviors across the day in each anxiety trajectory. Women with AN (N = 118) completed a two-week ecological momentary assessment (EMA) protocol during which they provided multiple daily reports on a variety of behavioral and affective variables, including anxiety and ED behaviors. Latent growth mixture modeling was used to classify EMA days (N=1526) based on anxiety ratings, with the results identifying seven distinct daily anxiety trajectories: stable low, stable high, late increasing, late decreasing, early increasing, early decreasing, and inverted U-shape. Using general estimating equations, the likelihood of ED behaviors was compared between the stable low anxiety trajectory and the other trajectories characterized by high or fluctuating anxiety over the day. Significant differences were found for the likelihood of binge eating, self-induced vomiting, body checking, skipping meals, and dietary restriction, such that these behaviors were more likely to occur on certain types of days characterized by high or fluctuating anxiety versus days in which anxiety remained at a stable low level. Further, distinct daily temporal distributions of ED behaviors were found across the trajectories, with peaks in the probability of certain behaviors frequently coinciding with high levels of anxiety. Findings provide evidence for the utility of identifying within-person variability in daily anxiety levels, lending support to therapeutic interventions for AN that target momentary anxiety and other forms of negative affect.

Learning Objectives:

- To discuss the theoretical role of anxiety in anorexia nervosa.
- To characterize the daily patterns of anxiety in anorexia nervosa.
- To examine the differential likelihood of eating disorder behaviors across daily anxiety patterns in anorexia nervosa.

The Role of Early Psychosocial and Behavioral Risk Factors on Eating Disorders and Binge Eating Among Young Adults in the U.S.

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The purpose of this study was to examine the impact of psychosocial and behavioral risk factors in adolescence on unsafe extreme weight loss behavior (EWLB), Eating Disorder (ED) diagnosis, and binge eating symptoms among U.S. young adult men and women. Emerging adulthood (ages 18-26) is an important developmental period for establishing health habits over the lifespan. Our sample (N=15,170) was from waves 1 (1994-95) and three (2001-02; ages 18-26) of the National Longitudinal Study of Adolescent Health. Adjusting for a clustered sampling design, we conducted multivariate logistic regressions to examine the impact of risk factors measured at W1 (weight loss behaviors, depression, body image, Body Mass Index z-scores) on three indicators of disordered eating (EWLB, ED diagnosis, binge eating) measured at W3, controlling for age, race/ethnicity, SES, and family structure. Analyses were stratified by sex. Among women, early EWLB predicted increased odds of ED diagnosis reported in young adulthood by nearly four times (OR=3.67, $p<.01$) and odds of EWLB by three times (OR=3.12, $p<.01$). Early depression more than doubled the odds of ED diagnosis (OR=2.13, $p<.01$) and adult binge eating symptoms (OR=2.43, $p<.01$). Among men, early body image distortion was associated with nearly six times the odds of later reported ED (OR=5.69, $p<.01$). Early depression also predicted ED diagnosis (OR=2.88, $p<.01$) and adult binge eating symptoms (OR=3.49, $p<.01$). Overall, ED and binge eating behaviors were found across sex and BMI, with important sex differences. Findings suggest that screening for EDs among emerging adults should occur for both sexes regardless of weight status. Assessment of history of early risk factors in primary care may improve detection and referral for ED treatment among young adults, and presents a unique opportunity to address ED under-treatment as more emerging adults gain access to health care under the Affordable Care Act of 2010.

Learning Objectives:

- Identify psychosocial and behavioral risk factors in adolescence for disordered eating in young adulthood.
- Describe sex differences in early risk factors for disordered eating among young adults.
- Apply findings to enhance ED screening practices in primary care and mental health settings.

Treatment of Eating Disorders I

Parent-Focused Treatment: A Randomised Controlled Trial of an Alternative Form of Family-Based Treatment for Adolescent Anorexia Nervosa

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Family-based treatment (FBT) has the strongest evidence for effective treatment of adolescent anorexia nervosa. Treatment involves charging parents with the task of weight restoration until such time as eating and weight control can be returned to the adolescent. In FBT, the whole family attends sessions together. This is thought to allow the therapist to gain insight into how the family functions as a whole and intervene directly in family interactions. However, given that much of FBT involves the therapist assisting parents to address eating disorder symptomatology, it may be possible to achieve the goals of FBT without seeing the whole family together. In support of this, previous research has shown that FBT can be effective when delivered in either conjoint (i.e., whole family) or separated formats (i.e., parents and adolescents seen in separate sessions). Indeed, separated FBT may be more effective for some types of families and may reduce eating disorder symptoms to a greater extent than conjoint FBT. Extending this research, the Eating Disorders Program at the Royal Children's Hospital Melbourne has developed a parent-focused treatment model (PFT). This presentation will describe PFT and provide an outline of a randomised controlled trial currently being conducted. The trial aims to compare PFT and conjoint FBT, and to identify mediators and moderators of treatment success. Included in this presentation will be a description of the study design, recruitment strategies, and assessment procedures. Progress from the first three years of the trial will also be presented.

Learning Objectives:

- Describe research on conjoint and separated models of family-based treatment for anorexia nervosa.
- Describe parent-focused treatment for adolescent anorexia nervosa.
- Understand the study design for testing the effectiveness of parent-focused treatment including mediators and moderators.

The Reciprocal Relationship between Dietary Restraint and Binge Eating during Cognitive Behavioral Therapy for Bulimia Nervosa

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The cognitive-behavioral theory of bulimia nervosa (BN) proposes that dietary restraint and binge eating are linked in a reciprocal maintenance relationship, yet few studies have explored this relationship in clinical

samples using repeated measures data. This study aimed to evaluate this reciprocal relationship by examining the dynamic association between change in dietary restraint and change in binge eating during the first ten weeks of cognitive-behavior therapy (CBT). Participants were 146 patients who received enhanced CBT for BN (n = 115) or an eating disorder not otherwise specified (n = 31). The Eating Disorder Examination Questionnaire was administered at pre-treatment, week five of treatment, and week ten of treatment. Latent difference score modeling was used to determine the direction of the relationship between dietary restraint and binge eating. The overall rate of change in dietary restraint over the first ten weeks of treatment was positively associated with the overall rate of change in binge eating. Early change in binge eating predicted subsequent change in dietary restraint, but contrary to expectation, early change in dietary restraint did not predict later change in binge eating. Study results highlight the potential importance of early change in binge eating in driving the change process in CBT for BN.

Learning Objectives:

- Describe the relationship between dietary restraint and binge eating as outlined in the cognitive-behavioral model of bulimia nervosa.
- Understand the application of latent difference score modeling to the study of dynamic change relationships during cognitive-behavioral therapy.
- Consider the role of binge eating in driving the change process in cognitive-behavioral therapy for bulimia nervosa.

Perceived Coercion Regarding Hospital Admission and Readiness to Change Affect Patient Outcomes at Discharge and Six Month Follow-up

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Unlike many psychiatric conditions, eating disorders are ego-syntonic. Patients are typically ambivalent about making behavioral changes and are often pressured or coerced into treatment. Little research exists on the relation of perceived coercion to outcomes following hospitalization for patients with eating disorders. Higher perceived coercion may be associated with lower readiness to change, potentially impacting patients' recovery. This study examined the effects of perceived coercion and readiness to change on clinical and behavioral outcomes assessed at hospital discharge and at six month follow-up. Participants (N = 173) were a sample of female inpatients, predominantly Caucasian (88%) with a mean age of 28.07 years (SD= 11.75). Self-reported frequency of eating disordered behaviors (binge eating, purging, and restricting) and measures of eating disorder pathology (EDI-2, SATAQ, and EDRSQ) were assessed at admission and six months post-discharge. Rate of weight gain and achievement of target weight at discharge were assessed in underweight participants. Perceived coercion and readiness to change were correlated ($r = -.49, p < .01$), but neither was related to baseline behavioral levels or measures of eating disorder pathology. However, lower perceived coercion and higher readiness to change at admission were associated with decreased drive for thinness ($p = .01$), body dissatisfaction ($p < .01$), internalization of the thin ideal ($p < .01$), and increased self efficacy to maintain a healthy body image ($p < .01$) at the six month follow-up. Subsequent analyses showed participants who reported higher perceived coercion remained static on these measures. Higher readiness to change at admission was associated with decreased use of laxatives ($p = .05$), diet pills ($p = .02$), and diuretics ($p = .03$) at follow-up. Results may be related to potentially stronger social support systems in patients reporting higher coercion as well as the way in which change processes occur.

Learning Objectives:

- Describe the role of perceived coercion in the onset of inpatient treatment for patients diagnosed with eating disorders.
- Identify the relation of perceived coercion and readiness to change in patients diagnosed with eating disorders.
- Interpret the effects of perceived coercion and readiness to change at admission on patient outcomes (behavioral frequencies, measures of eating disorder pathology) at the six month follow-up.

Confronting Fear of Food Using Exposure and Response Prevention for Anorexia Nervosa: A Randomized Controlled Trial

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Anorexia nervosa (AN) is a severe illness, often chronic, and with high rates of relapse that have not improved significantly in the past few decades. New strategies are necessary to decrease the high morbidity and mortality

among individuals with AN. Exposure and Response Prevention for AN (AN-EXRP) is a new approach that specifically addresses maladaptive eating behavior by targeting eating-related fear and anxiety. The purpose of this study was to evaluate AN-EXRP as an adjunctive strategy to improve eating behavior during acute treatment, a time known to impact long term illness course. A randomized controlled trial was conducted to compare AN-EXRP with an active control intervention, Cognitive Remediation Therapy (CRT). Participants were hospitalized patients with AN (n=32) who had achieved partial weight restoration. Participants received 12 sessions of either AN-EXRP or CRT. Outcome was assessed by change in caloric intake in an objective assessment of eating behavior. AN-EXRP was superior to CRT in improving eating behavior. Those who received AN-EXRP increased intake whereas those who received CRT decreased intake in the laboratory meal ($t(28)=2.5, p=0.02$). Improvement in intake was significantly associated with improvement in eating-related anxiety (Spearman's $\rho=0.40, p=0.03$). The findings suggest that AN-EXRP is a promising new strategy in the treatment for AN. With further development, this approach may reduce maladaptive eating behaviors and decrease relapse.

Learning Objectives:

- Describe the principles of exposure and response prevention therapy.
- Apply principles of exposure and response prevention to anorexia nervosa.
- Describe the change in eating behavior with exposure and response prevention.

Outcomes of an Emotion-focused Therapy Group for Parents of Children with Eating Disorders: An Adjunct to Family-based Therapy

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Family-based treatment (FBT) is the only treatment for anorexia nervosa (AN) shown to be effective to date. Traditional FBT is an outpatient treatment which assigns parents a pivotal role in their child's recovery and consists of three phases: having parents 1) take control of the child's weight restoration and symptom interruption, 2) return control over eating to the child, and 3) support the child's developing identity and autonomy. This model of treatment can be very effective in the treatment of children and adolescents with eating disorders (EDs); however, while many adolescents and their families recover with FBT, a significant minority do not respond adequately to this treatment modality, indicating a need for innovative adjuncts to treatment. As such, we conducted a pilot study examining the outcomes of parents who participated in an 8-week group, in addition to engaging in regular FBT. The group was based on emotion-focused therapy (EFT) principles and techniques and its aims were to coach parents to become their child's "emotion coach", as well as to process with parents any emotional "blocks" that may surface around their ability to take charge of their child's refeeding and interruption of symptoms. Five parents participated in the group and completed a series of measures pre- and post-group. Significant differences emerged on a number of measures including the Eating Disorder Symptom Impact Scale, the Accommodation and Enabling Scale for Eating Disorders, and the Parent Version of the Children's Depression Inventory, among others. These improvements coincided with weight gain/stabilization in their children. Implications are discussed in terms of promising adjuncts to FBT for treatment-resistant EDs as well as next steps.

Learning Objectives:

- Describe the application of EFT with parents in a group format as an adjunct to standard treatment.
- Illustrate the application of specific components of an EFT parent group.
- Identify the attitudes and behaviours consistent with recovery that are most susceptible to change as a result of an EFT parent group.

Short Term Outcomes from a Family-Based Parent Education Support Group

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The purpose of this study is to evaluate the short term outcomes of a family based parent education support group. This group was designed to provide education and support to parents within a family based maudslay approach, emphasizing parent empowerment, decreasing guilt and blame, providing didactic education on eating disorders, and a supportive forum for discussion. Quantitative data from 10 consecutive parent groups, for a total of 95 parents were collected at the beginning and the end of each parent education support group. As

well, qualitative data were collected through a focus group with six parents from 3 of the 10 different groups. There was a significant increase in parent knowledge from pre to post group, ($t=-2.44$, $p=.04$), a significant decrease in parent feelings of guilt and self-blame from pre to post group ($t=2.12$, $p=.04$), a significant decrease in impact of symptoms related to nutrition ($t=3.05$, $p = .01$), and parents experienced increased feelings of support (as measured by hope ($t=-2.35$, $p = .04$) and secure emotional expression (-2.37 , $p = .04$)). Qualitative analysis demonstrated themes of 1) feeling more supported, less isolated, and less guilty/blamed as a result of the group, 2) feeling more hopeful and with a better ability to understand and connect to their child, and 3) increased feelings of empowerment (depending on level of treatment family was receiving). Results will be discussed in terms of the role of a family based parent support education group as part of intensive inpatient or outpatient treatment or as a stand alone group.

Learning Objectives:

- Describe the short term outcomes of a family based parent support education group.
- Describe the changes in knowledge, guilt and hope that result from a parent support education group.
- Describe the utility of including this group as part of intensive treatment for children and youth or as a stand alone group.