*Supplementary Table S3. Prospective studies of self-reported psychosocial risk factors and binge-eating patterns.*

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| --- | --- | --- | --- | --- |
| **Study** | **Sample** | **Design** | **Measures** | **Findings** |
| Allen et al. (2008) | 259 children from Australia | Participants in the Childhood Growth and Development (GAD) study completed assessments at baseline (T1) and one year later (T2). | 1. ChEDE 2. Child Affect Regulation Scale (CARES) 3. CDI, short form 4. Self Perception Profile for Children (SPPC) | * T1 restraint and emotional eating were significant predictors of binge eating onset at T2. * T1 depressive symptoms, self-esteem, eating concern and weight/shape concern did not significantly predict binge eating onset at T2. |
| Allen et al. (2012) | 236 children from Australia | Participants in the Childhood Growth and Development (GAD) study completed assessments at baseline (T1), 1 year (T2) and 2 years later (T3). | 1. ChEDE 2. Multidimensional Media Influence Scale (MMIS), Internalisation and Pressure subscales 3. SPPC, Global Self-Worth subscale 4. Oxford Risk Factor Interview, Perfectionism section (parent report) 5. Students’ Life Satisfaction Scale (SLSS), Family Satisfaction subscale 6. CDI, short form 7. CARES | * Fairburn and colleagues’ original cognitive behavior model of binge eating did not fit the data well, however, Fairburn and colleagues’ enhanced cognitive behavior model and Stice and colleagues’ dual-pathway model offered acceptable fits. |
| Allen et al. (2014) | 1,383 adolescents from Australia | Participants in the Raine Study were followed, with their parents, from pre-birth to age 20. Participants completed eating disorder measures at age 14 (T1), age 17 (T2) and age 20 (T3). | Childhood measures:   1. Life Stress Inventory (parent; ages 5, 8, 10) 2. Child Behavior Checklist (CBCL; parent), Social Problems (age 8) and Withdrawn (age 10) subscales 3. Cowen’s Self-Efficacy Scale for children, Problems with People subscale (age 10)   Ages 14, 17, 20 (T1, T2, and T3):   1. EDE-Q 2. Beck Depression Inventory-Youth (BDI) 3. Self-Perception Profile for Adolescents (SPPA) 4. Items assessing drug or alcohol use, bullying and difficulties with peers or school 5. CBCL (parent) 6. Parents reported their level of physical/sedentary activity, importance on weight/shape, and perceptions of child overweight and overeating | * Female sex; eating, weight, and shape concerns; maternal history of mental health issues, and CBCL-Externalizing Problems (T1) predicted increased risk for subsequent binge eating and purging eating disorders. * Parent perception of child being overweight at age 10 did not significantly predict onset of eating disorder at T2 or T3. |
| Calam & Waller (1998) | 63 adolescent girls from the UK | Adolescent participants and their mothers were assessed at baseline (T1) and participants 7 years later (T2). | 1. Eating Attitudes Test (EAT) 2. Bulimic Investigatory Test, Symptom scale (BITE) 3. Setting Conditions for Anorexia Nervosa Scale (SCANS; T1) 4. Family Assessment Device (mother; T1) | * EAT Bulimia and BITE Symptoms at T1 significantly predicted binge eating at T2. * General family dysfunction and poor role differentiation in the family (FAD Roles) at T1 were correlated with T2 BITE-Binging, BITE Symptom and EAT Bulimia. |
| Chen et al. (2009) | 543 adolescent girls from the US | Participants in the Pittsburgh Girls Study (PGS) completed self-report measures at age 10 (T1), age 12 (T2), and age 14 (T3). | 1. Child Eating Attitudes Test (ChEAT) 2. Body Image Measure (BIM) 3. Child Symptom Inventory-4 | * When participants were clustered into an at-risk “dietary-depressive” subtype and a not at-risk subtype, T1 at-risk status significantly predicted binge eating at T2 and T3. * Higher BIM score (greater body dissatisfaction) at T1 was a significant risk factor for binge eating at T2. * Belonging to a family on public assistance was a significant risk factor for binge eating at T3. |
| Combs et al. (2010) | 394 adolescent girls from the US | Participants completed self-report measures at the start of middle school (T1) and at follow-up assessments 2 years (T2) and 3 years later (T3). | 1. Eating Disorder Inventory, Ineffectiveness Scale (EDI-II) 2. Thinness and Restricting Expectancy Inventory (TREI) 3. Bulimia Test-Revised (BULIT-R) | * The positive association between EDI-II-Ineffectiveness at T1 and binge eating at T3 was mediated by dieting and thinness expectancies at T2. |
| Eisenberg & Neumark-Sztainer (2010) | 2,516 adolescents from the US | Participants in Project EAT (Eating Among Teens) completed self-report measures at baseline (T1) and follow-up 5 years later (T2). | 1. Item asked participants about frequency of dieting amongst their friends. 2. Item asked participants about dieting behaviors of same-sex parent. 3. Assessed participants’ disordered eating behaviors: a) two items assessing binge eating with LOC b) chronic dieting item c) item on unhealthy and extreme weight control behaviors | * Among female adolescents, T1 perception of friends’ dieting was positively associated with binge eating at T2. * NS association between T1 perception of friends’ dieting and binge eating at T2 among males. |
| Field et al. (2002) | 10,962 adolescents from the US | Participants in the Growing Up Today Study (GUTS) completed self-report measures at baseline (T1) and 1 year later (T2). | 1. McKnight Risk Factor Survey (MRFS) 2. Assessed weight control methods with items from the Youth Risk Behavior Surveillance System 3. Smoking status used items from the Youth Risk Behavior Survey and the California Tobacco Survey 4. Items regarding household members’ and friends’ use of tobacco and alcohol | * Among girls, T1 weight concerns significantly predicted purging (OR=3.8) and binge eating (OR=2.6) onset at T2. * Among girls, T1 dieting was another significant risk factor for purging and binge eating onset at T2, when controlling for other risk factors. * Smoking and getting drunk were not predictive of binge eating in fully adjusted models. |
| Field et al. (2008) | 11,087 children and adolescents from the US | Participants in the Growing Up Today Study (GUTS) completed self-report measures every 12-18 months over the course of 7 years. Participants’ mothers completed one questionnaire 8 years after baseline. | 1. McKnight Risk Factor Survey (MRFS) 2. Youth Risk Behavior Surveillance System, adapted 3. One item on dieting frequency 4. Two items assessing binge eating with LOC 5. Two items assessing purging 6. Mothers reported any family history of eating disorder diagnosis and treatment | * Among females, greater dieting, concern about weight, and effort to look like same-sex individuals in the media conferred greater risk of weekly binge eating onset. * After controlling for dieting, being overweight did not predict binge eating onset. Maternal history of eating disorder also not predictive. * Among males, concern about weight and negative comments about weight by fathers significantly predicted weekly binge eating onset. |
| Goldschmidt et al. (2012) | 1,827 adolescents from the US | Participants in Project EAT (Eating Among Teens) completed self-report measures at baseline (T1), 5 years (T2) and 10 years later (T3). | 1. One item on dieting frequency 2. Two items assessing binge eating with LOC 3. Kandel and Davies’ depression scale for adolescents 4. Rosenberg Self Esteem Scale 5. Two items on weight- and appearance-based teasing | * Among males and females, T1 depression significantly predicted T2 binge eating onset   after controlling for dieting and demographics.   * T1 teasing and self-esteem did not predict T2 binge eating onset among males or females. * Among males, T2 depression and self-esteem each predicted T3 binge eating onset; T2 dieting and depression also interacted to predict T3 binge eating onset. * Among females, T2 depression, self-esteem and teasing each predicted T3 binge eating onset; dieting and self-esteem as well as dieting and teasing interacted to predict T3 binge eating onset. |
| Goldschmidt et al. (2014) | 1,906 adolescents from the US | Participants in Project EAT (Eating Among Teens) completed self-report measures at baseline (T1), 5 years (T2), and 10 years later (T3). | 1. Two items assessed binge eating with LOC 2. Body Shape Satisfaction Scale, modified 3. Kandel and Davies’ depression scale for adolescents 4. Rosenberg Self-Esteem Scale | * Binge eating onset at T3 predicted by greater depressive symptoms, lower self-esteem, and lower body satisfaction from T1 to T2. * T3 binge eating onset was not significantly related to T1 to T2 BMI changes. |
| Goossens et al. (2012) | 601 children from Belgium | Participants completed self-report measures at baseline (T1) and follow-up 1 year later (T2). | 1. ChEDE-Q 2. Security Scale, measuring attachment toward parents (T1) | * T1 attachment toward mother and toward father were both significantly negatively correlated with T2 OBE and SBE presence. * Attachment toward parents did not significantly predict OBE or SBE onset at T2. * Weaker attachment toward father significantly predicted SBE persistence. |
| Haines et al. (2006) | 2,516 adolescents from the US | Participants in Project EAT (Eating Among Teens) completed self-report measures at baseline (T1) and follow-up 5 years later (T2). | 1. One item assessing frequency of weight-related teasing 2. Assessed disordered eating behaviors: a) two items assessing binge eating with LOC b) one item on unhealthy weight control behaviors c) one item on dieting frequency | * T1 weight teasing predicted binge eating with LOC onset at T2, among both females and males, adjusting for age, race and SES. * With T2 BMI added to model, result was significant only among males. |
| Hilbert et al. (2013) | 112 children from Germany  LOC (n=55)  HC (n=57) | Participants completed interview and self-report measures at baseline and 4 follow-up appointments, with 6 months between assessments. | 1. Eating Disorder Examination adapted for Children (ChEDE) 2. Eating Disorder Examination-Questionnaire adapted for Children (ChEDE-Q) 3. Children’s Depression Inventory (CDI) 4. Dutch Eating Behavior Questionnaire, emotional eating scale (T1, T3 and T5) 5. Perception of Teasing Scale (T1) | * Within LOC participants, decreased shape concern and increased depressive symptoms increased risk for LOC presence at the next assessment. * Among LOC youth, shape concern and weight-related teasing (T1) predicted LOC episodes at follow-up. |
| Hilbert & Brauhardt (2014) | 120 children from Germany  LOC (n=60)  HC (n=60) | Participants completed interview and self-report measures at baseline (T1) and follow-up 5.5 years later (T2). | 1. ChEDE (in person at T1; phone interview at T2) 2. ChEDE-Q 3. CDI | * NS relationship between T1 Depressive symptoms and T2 LOC onset or persistence. |
| Liechty & Lee  (2013) | 14,322 adolescents from across the U.S. | Participants in the National Longitudinal Study of Adolescent Health (Add Health) completed self-report measures at baseline (T1) and follow-up 7 years later (T2). | 1. Center for Epidemiologic Studies Depression Scale (T1) 2. One item each assessing body image distortion (T1), dieting, binge eating/LOC symptoms (T2 only), history of eating disorder diagnosis (T2) 3. Three items assessed extreme weight loss behaviors 4. Parent education and family structure (parent report) | * Among both men and women, T1 depression was significantly positively associated with binge eating symptoms at T2. * Among women, T1 dieting with positively associated with binge eating at T2. * NS association between T1 body image distortion or extreme weight loss behaviors and T2 binge eating. |
| Skinner et al. (2012) | 4,798 female adolescents from the US | Participants in the Growing Up Today Study (GUTS) completed self-report measures at baseline (T1), 2 years (T2) and 4 years later (T3). | 1. Item assessing OO; if OO was present, 6 subsequent items assessed the episode and LOC 2. Depression assessed with item from McKnight Risk Factor Survey IV | * High T1 depressive symptoms predicted initiating monthly binge eating at follow-up, though results were attenuated when model adjusted for dieting. * Results nearly identical with weekly cutoffs for binge eating. |
| Smith et al. (2007) | 394 adolescent girls from the US | Participants completed self-report measures at the start of middle school (T1) and at follow-up assessments 2 years (T2) and 3 years later (T3). | 1. Eating Expectancy Inventory (EEI), Scale 1: Eating Helps Manage Negative Affect 2. Thinness and Restricting Expectancy Inventory (TREI) 3. Bulimia Test-Revised | * Among those who did not report T1 binge eating, T1 thinness expectancy and eating expectancy both significantly predicted binge eating onset at follow-up. |
| Sonneville et al. (2012) | 1,559 adolescent girls from the US | Participants in the Growing Up Today Study (GUTS) completed self-report measures annually or biannually over the course of 11 years. | 1. Body satisfaction item from McKnight Risk Factor Survey 2. Item about frequency of TV viewing 3. Two items assessing binge eating with LOC | * Girls somewhat satisfied with body were at lower risk for binge eating onset in next 1-2 years. * Girls who were “a lot” or “totally” satisfied with their body, compared to “not at all” satisfied, were at even lower risk for binge eating onset. * Higher body satisfaction protected against binge eating onset across participants, but had a greater effect in younger girls. |
| Stice et al. (2002) | 231 females from US high schools | Participants completed surveys in groups of 30-50 at baseline (T1), 10 months (T2) and 20 months later (T3). | 1. Dutch Restrained Eating Scale 2. Satisfaction and Dissatisfaction with Body Parts Scale, adapted 3. Beliefs About Appearance Scale 4. Perceived Sociocultural Pressure Scale 5. Bulimic Modeling Scale 6. Burns Depression Checklist 7. Burns Anxiety Inventory 8. Burns Anger Scale 9. Rosenberg Self-Esteem Scale 10. Dutch Emotional Eating Scale 11. Network of Relationships Inventory 12. Eating Disorder Examination-Questionnaire | * Greater body dissatisfaction, body mass, dieting, appearance overvaluation, perceived pressure to be thin, modeling of eating disturbances, depressive symptoms, and emotional eating all predicted greater risk for binge eating. * Low self-esteem and low perceived social support from peers predicted binge eating onset. * Among girls at T1 without binge eating, these 10 factors (in above two bullets) distinguished girls who would and would not develop binge eating with 92% accuracy. * For girls with low appearance overvaluation, only depressive symptoms conferred risk for binge eating onset. * Factors that did not significantly predict binge eating onset were anxiety symptoms, anger, and perceived social support from parents. |
| Tanofsky-Kraff et al. (2011) | 195 children from the US | Participants completed assessments at baseline (T1) and at follow-up 4.7 years later (T2). | 1. ChEDE (T1) and EDE (T2) 2. Standard Pediatric Eating Episode Interview 3. CDI 4. State-Trait Anxiety Inventory for Children A – Trait Scale | * Among no-LOC at T1, neither depression, trait anxiety, nor EDE subscales predicted T2 LOC onset. * Only LOC at T1 significantly predicted development of partial or full-syndrome BED at follow-up, accounting for baseline depression, trait anxiety, and EDE subscales. |

*Abbreviations*: LOC = loss of control; BED = binge eating disorder; OR = odds ratio; OO = objective overeating; SES = socioeconomic status; OBE = objective binge episode; SBE = subjective binge episode.

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