# Stanford



# Cara Bohon

Clinical Associate Professor, Psychiatry and Behavioral Sciences - Child & Adolescent Psychiatry and Child Development

# Bio

# ACADEMIC APPOINTMENTS

- Clinical Associate Professor, Psychiatry and Behavioral Sciences Child & Adolescent Psychiatry and Child Development
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Wu Tsai Neurosciences Institute

# ADMINISTRATIVE APPOINTMENTS

• Director, Stanford Child and Adolescent Outpatient Eating Disorders Clinic, (2018-2021)

# BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

• Co-Chair, Neuroimaging Special Interest Group, Academy of Eating Disorders (2014 - 2017)

## **PROFESSIONAL EDUCATION**

- PhD, University of Oregon, Clinical Psychology (2010)
- MS, University of Oregon , Clinical Psychology (2006)
- BS, Vanderbilt University, Psychology (2004)

# **Research & Scholarship**

## CURRENT RESEARCH AND SCHOLARLY INTERESTS

My research interests have focused on the neural bases of eating disorders. I am particularly interested in the way emotion and reward is processed in the brain and how that may contribute to eating behavior and food restriction. I hope to eventually translate biological research findings into treatments.

## CLINICAL TRIALS

- Confirming the Efficacy/Mechanism of Family Therapy for Children With Low Weight ARFID, Recruiting
- Emotion Regulation in Binge Eating and Purging Among Adolescents, Not Recruiting
- Food and the Brain, Not Recruiting
- Implementing FBT for Adolescent AN for Providers in Private Practice, Not Recruiting
- Neural Links Between OCD and Anorexia, Not Recruiting
- Peer-Led Dissonance Eating Disorder Prevention: Virtual Delivery, Not Recruiting
- Taste Reward Processing in Pediatric Obesity, Not Recruiting

#### PROJECTS

• Food and the Brain - Stanford University (September 22, 2015 - August 31, 2020)

# **Publications**

#### PUBLICATIONS

- Early weight gain as a predictor of weight restoration in avoidant/restrictive food intake disorder. *Journal of eating disorders* Perry, T. R., Cai, K., Freestone, D., Steinberg, D. M., Bohon, C., Menzel, J. E., Baker, J. H. 2024; 12 (1): 27
- Family-based treatment (FBT) for loss of control (LOC) eating in youth: Current knowledge and future directions. *Eating disorders* Matheson, B. E., Bohon, C., Le Grange, D., Lock, J. D. 2024; 32 (1): 1-12
- Who Responds to an Adaptive Intervention for Adolescents With Anorexia Nervosa Being Treated With Family-Based Treatment? Outcomes From a Randomized Clinical Trial. *Journal of the American Academy of Child and Adolescent Psychiatry* Lock, J. D., Le Grange, D., Bohon, C., Matheson, B., Jo, B. 2023
- A randomized trial of two group-delivered transdiagnostic eating disorder treatments: Dissonance-based treatment versus interpersonal psychotherapy. *Journal of consulting and clinical psychology*

Stice, E., Rohde, P., Yokum, S., Gau, J. M., Bohon, C., Shaw, H. 2023; 91 (12): 683-693

- Expressed emotion and early treatment response in family-based treatment for adolescent anorexia nervosa. *Eating disorders* Bohon, C., Flanagan, K., Welch, H., Rienecke, R. D., Le Grange, D., Lock, J. 2023: 1-16
- The assessment of caregiver self-efficacy in a virtual eating disorder setting. *Journal of eating disorders* Jones, N. M., Baker, J. H., Urban, B., Freestone, D., Doyle, A. C., Bohon, C., Steinberg, D. M. 2023; 11 (1): 167
- An orexigenic subnetwork within the human hippocampus. Nature Barbosa, D. A., Gattas, S., Salgado, J. S., Kuijper, F. M., Wang, A. R., Huang, Y., Kakusa, B., Leuze, C., Luczak, A., Rapp, P., Malenka, R. C., Hermes, D., Miller, et al 2023
- Family-based treatment (FBT) for loss of control (LOC) eating in youth: Current knowledge and future directions *EATING DISORDERS* Matheson, B. E., Bohon, C., Le Grange, D., Lock, J. D. 2023
- Human habit neural circuitry may be perturbed in eating disorders. *Science translational medicine* Wang, A. R., Kuijper, F. M., Barbosa, D. A., Hagan, K. E., Lee, E., Tong, E., Choi, E. Y., McNab, J. A., Bohon, C., Halpern, C. H. 2023; 15 (689): eabo4919
- Aberrant reward-related neural activation: Dimensional correlate of binge-eating severity or categorical marker of binge eating? Journal of psychiatric research

Hagan, K., Datta, N., Stern, M., Bohon, C. 2023; 161: 54-61

2023

- Efficacy of virtual delivery of a dissonance-based eating disorder prevention program and evaluation of a donation model to support sustained implementation. *Journal of consulting and clinical psychology* Stice, E., Bohon, C., Shaw, H., Desjardins, C. D.
- Evaluating differences in setting expected body weight for children and adolescents in eating disorder treatment. The International journal of eating disorders

Steinberg, D. M., Perry, T. R., Freestone, D., Hellner, M., Baker, J. H., Bohon, C.

2022

- Predictors of family-based treatment for adolescent eating disorders: Do family or diagnostic factors matter? The International journal of eating disorders: Datta, N., Hagan, K., Bohon, C., Stern, M., Kim, B., Matheson, B. E., Gorrell, S., Le Grange, D., Lock, J. D. 2022.
- Protocol for a randomized clinical trial for Avoidant Restrictive Food Intake Disorder (ARFID) in low-weight youth. Contemporary clinical trials Van Wye, E., Matheson, B., Citron, K., Yang, H., Datta, N., Bohon, C., Lock, J. D. 2022: 107036
- To truly reduce weight stigma and eating disorder risk, we need to stop promoting weight loss. *Journal of the Academy of Nutrition and Dietetics* Steinberg, D. M., Bohon, C.

2022

- Pilot study of responsive nucleus accumbens deep brain stimulation for loss-of-control eating. *Nature medicine* Shivacharan, R. S., Rolle, C. E., Barbosa, D. A., Cunningham, T. N., Feng, A., Johnson, N. D., Safer, D. L., Bohon, C., Keller, C., Buch, V. P., Parker, J. J., Azagury, D. E., Tass, et al
   2022
- Study protocol for training providers in private practice in family-based treatment for adolescents with anorexia nervosa: A randomized controlled feasibility trial. *Contemporary clinical trials* Citron, K., Johnson, M., Matheson, B. E., Onipede, Z. A., Yang, H. J., Bohon, C., Le Grange, D., Lock, J.

2022: 106889

• Aberrant impulse control circuitry in obesity. Molecular psychiatry

Barbosa, D. A., Kuijper, F. M., Duda, J., Wang, A. R., Cartmell, S. C., Saluja, S., Cunningham, T., Shivacharan, R. S., Bhati, M. T., Safer, D. L., Lock, J. D., Malenka, R. C., de Oliveira-Souza, et al 2022

- Effectiveness of delivering evidence-based eating disorder treatment via telemedicine for children, adolescents, and youth. *Eating disorders* Steinberg, D., Perry, T., Freestone, D., Bohon, C., Baker, J. H., Parks, E. 2022: 1-17
- The effect of mood on food versus non-food interference among females who are high and low on emotional eating. *Journal of eating disorders* Sambal, H., Bohon, C., Weinbach, N. 2021; 9 (1): 140
- Factors that predict persistence versus non-persistence of eating disorder Symptoms: A prospective study of high-risk young women. Behaviour research and therapy

Stice, E., Bohon, C., Gau, J. M., Rohde, P. 2021; 144: 103932

- Maintenance of Training Effects of Two Models for Implementing Evidence-Based Psychological Treatment. *Psychiatric services (Washington, D.C.)* Fitzsimmons-Craft, E. E., Bohon, C., Wilson, G. T., Jo, B., Mondal, S., Laing, O., Welch, R. R., Raghavan, R., Proctor, E. K., Agras, W. S., Wilfley, D. E. 2021: appips202000702
- Virtually delivered family-based eating disorder treatment using an enhanced multidisciplinary care team: A case study. *Clinical case reports* Hellner, M., Bohon, C., Kolander, S., Parks, E. 2021; 9 (6): e04173
- Subcortical brain volume and cortical thickness in adolescent girls and women with binge eating. *The International journal of eating disorders* Hagan, K. E., Bohon, C. 2021
- Cognitive Behavioral Therapy for the Eating Disorders. *Annual review of clinical psychology* Agras, W. S., Bohon, C. 2021; 17: 417–38
- Understanding outcomes in family-based treatment for adolescent anorexia nervosa: a network approach. *Psychological medicine* Hagan, K. E., Matheson, B. E., Datta, N., L'Insalata, A. M., Onipede, Z. A., Gorrell, S., Mondal, S., Bohon, C. M., Grange, D. L., Lock, J. D. 2021: 1–12

- Dopamine-Related Alterations of Frontostriatal Habit Circuitry Underlie Stimulus-Response Binge Eating Wang, A., Kuijper, F. M., Barbosa, D., Hagan, K., Lee, E., Tong, E., Bohon, C., Halpern, C. H. ELSEVIER SCIENCE INC.2021: S233-S234
- Test-retest reliability of functional MRI food receipt, anticipated receipt, and picture tasks. *The American journal of clinical nutrition* Yokum, S., Bohon, C., Berkman, E., Stice, E. 2021
- Anticipatory human subthalamic area beta-band power responses to dissociable tastes correlate with weight gain. Neurobiology of disease Kakusa, B., Huang, Y., Barbosa, D. A., Feng, A., Gattas, S., Shivacharan, R., Lee, E. B., Kuijper, F. M., Saluja, S., Parker, J. J., Miller, K. J., Keller, C., Bohon, et al

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- Quadratic relations of BMI with depression and brain volume in children: Analysis of data from the ABCD study. *Journal of psychiatric research* Bohon, C. n., Welch, H. n. 2021; 136: 421–27
- The insulo-opercular cortex encodes food-specific content under controlled and naturalistic conditions. *Nature communications* Huang, Y., Kakusa, B. W., Feng, A., Gattas, S., Shivacharan, R. S., Lee, E. B., Parker, J. J., Kuijper, F. M., Barbosa, D. A., Keller, C. J., Bohon, C., Mikhail, A., Halpern, et al 2021; 12 (1): 3609
- EVIDENCE-BASED TREATMENT OF BULIMIA NERVOSA AND BINGE-EATING DISORDER Bohon, C. ELSEVIER SCIENCE INC.2020: \$133–\$134
- Descriptive analysis of binge eating in adult and adolescent females. *Eating and weight disorders : EWD* Bohon, C., Matheson, B., Welch, H. 2020
- Family-based treatment via videoconference: Clinical recommendations for treatment providers during COVID-19 and beyond. The International journal of eating disorders

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• Bringing Virtual Reality From Clinical Trials to Clinical Practice for the Treatment of Eating Disorders: An Example Using Virtual Reality Cue Exposure Therapy. Journal of medical Internet research

Brown, T., Nauman Vogel, E., Adler, S., Bohon, C., Bullock, K., Nameth, K., Riva, G., Safer, D. L., Runfola, C. D. 2020; 22 (4): e16386

• Brain-Responsive Neurostimulation for Loss of Control Eating: Early Feasibility Study. Neurosurgery

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• Confirming the Efficacy of an Adaptive Component to Family-Based Treatment for Adolescent Anorexia Nervosa: Study Protocol for a Randomized Controlled Trial. Frontiers in psychiatry

L'Insalata, A., Trainor, C., Bohon, C., Mondal, S., Le Grange, D., Lock, J. 2020; 11: 41

- Investigating Early Response to Treatment in a Multi-Site Study for Adolescent Bulimia Nervosa. *Frontiers in psychiatry* Matheson, B. E., Gorrell, S., Bohon, C., Agras, W. S., Le Grange, D., Lock, J. 2020; 11: 92
- A Protocol for Integrating Neuroscience Into Studies of Family-Based Treatment for Anorexia Nervosa: An Approach to Research and Potential Benefits for Clinical Care. *Frontiers in psychiatry* Bohon, C., Weinbach, N., Lock, J.

2019; 10: 919

• Insulin Resistance and Structural Change in the Anterior Cingulate Cortex in Youth With Depression and Obesity Hagan, K., Fischer, A., Nrusimha, A., Nimarko, A., Gorelik, A., Bohon, C., Rasgon, N., Singh, M.

NATURE PUBLISHING GROUP.2019: 143-44

• Training Models For Implementing Evidence-Based Psychological Treatment: A Cluster-Randomized Trial in College Counseling Centers. JAMA psychiatry

Wilfley, D. E., Agras, W. S., Fitzsimmons-Craft, E. E., Bohon, C., Eichen, D. M., Welch, R. R., Jo, B., Raghavan, R., Proctor, E. K., Wilson, G. T. 2019

• Bariatric Surgery in Children and Adolescents with Cognitive Impairment and/or Developmental Delay: Current Knowledge and Clinical Recommendations. *Obesity surgery* 

Matheson, B. E., Colborn, D., Bohon, C. 2019

- REWARD PROCESSING IN DEPRESSED AND OBESE CHILDREN
  Angal, S., Fischer, A. S., Bohon, C., Nimarko, A. F., Rolle, C. E., Lu, Y., Pan, T., Kuramkote, S. R., Rasgon, N. L., Singh, M. K. ELSEVIER SCIENCE INC.2019: S274
- Performance and brain activity during the Wisconsin Card Sorting Test in adolescents with obsessive-compulsive disorder and adolescents with weightrestored anorexia nervosa. European child & adolescent psychiatry Bohon, C., Weinbach, N., Lock, J.
   2019
- Set-shifting in adolescents with weight-restored anorexia nervosa and their unaffected family members. *Journal of psychiatric research* Weinbach, N., Bohon, C., Lock, J. 2019; 112: 71–76
- Superior response inhibition to high-calorie foods in adolescents with anorexia nervosa. Behaviour research and therapy Weinbach, N. n., Lock, J. n., Bohon, C. n. 2019: 124: 103441
- Change in brain volume and cortical thickness after behavioral and surgical weight loss intervention *NEUROIMAGE-CLINICAL* Bohon, C., Geliebter, A. 2019; 21
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- Change in brain volume and cortical thickness after behavioral and surgical weight loss intervention. *NeuroImage. Clinical* Bohon, C., Geliebter, A. 2018: 101640
- Differences in Emotion Regulation Difficulties Across Types of Eating Disorders During Adolescence JOURNAL OF ABNORMAL CHILD PSYCHOLOGY Weinbach, N., Sher, H., Bohon, C. 2018; 46 (6): 1351–58
- Changes in Cerebral Cortical Thickness Related to Weight Loss Following Bariatric Surgery OBESITY SURGERY Bohon, C., Garcia, L. C., Morton, J. M. 2018; 28 (8): 2578–82
- Aberrant Dynamic Connectivity for Fear Processing in Anorexia Nervosa and Body Dysmorphic Disorder. *Frontiers in psychiatry* Rangaprakash, D., Bohon, C., Lawrence, K. E., Moody, T., Morfini, F., Khalsa, S. S., Strober, M., Feusner, J. D. 2018; 9: 273
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- Differences in Emotion Regulation Difficulties Across Types of Eating Disorders During Adolescence. Journal of abnormal child psychology Weinbach, N. n., Sher, H. n., Bohon, C. n. 2017
- Intrinsic Brain Connectivity in Youth With Depression at High Risk for Insulin Insensitivity Singh, M., Leslie, S., Foland-Ross, L., Weisman, E., Bhattacharjee, K., Onopa, A., Soudi, L., Staver, A., Bohon, C., Rasgon, N. NATURE PUBLISHING GROUP.2016: S185–S186
- Functional connectivity for face processing in individuals with body dysmorphic disorder and anorexia nervosa *PSYCHOLOGICAL MEDICINE* Moody, T. D., Sasaki, M. A., Bohon, C., Strober, M. A., Bookheimer, S. Y., Sheen, C. L., Feusner, J. D. 2015; 45 (16): 3491-3503
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• Visual processing in anorexia nervosa and body dysmorphic disorder: Similarities, differences, and future research directions. Journal of psychiatric research

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• Functional Connectivity While Viewing Cues for Taste Delivery Related to Body Mass in Healthy-Weight Adolescents Bohon, C., Burger, K. S., Stice, E.

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• Nonlinear relationships between anxiety and visual processing of own and others' faces in body dysmorphic disorder *PSYCHIATRY RESEARCH-NEUROIMAGING* 

Bohon, C., Hembacher, E., Moller, H., Moody, T. D., Feusner, J. D. 2012; 204 (2-3): 132-139

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- Effects of cranial electrotherapy stimulation on resting state brain activity. *Brain and behavior* Feusner, J. D., Madsen, S., Moody, T. D., Bohon, C., Hembacher, E., Bookheimer, S. Y., Bystritsky, A.

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• Reward Abnormalities among Women with Full and Subthreshold Bulimia Nervosa: A Functional Magnetic Resonance Imaging Study INTERNATIONAL JOURNAL OF EATING DISORDERS

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• An fMRI study of obesity, food reward, and perceived caloric density. Does a low-fat label make food less appealing? APPETITE

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- Relation of dietary restraint scores to cognitive biases and reward sensitivity *APPETITE* Ahern, A. L., Field, M., Yokum, S., Bohon, C., Stice, E. 2010; 55 (1): 61-68
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- A Meta-Analytic Review of Depression Prevention Programs for Children and Adolescents: Factors That Predict Magnitude of Intervention Effects JOURNAL OF CONSULTING AND CLINICAL PSYCHOLOGY

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• Female Emotional Eaters Show Abnormalities in Consummatory and Anticipatory Food Reward: A Functional Magnetic Resonance Imaging Study INTERNATIONAL JOURNAL OF EATING DISORDERS

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- Maintenance Factors for Persistence of Bulimic Pathology: A Prospective Natural History Study INTERNATIONAL JOURNAL OF EATING DISORDERS Bohon, C., Stice, E., Burton, E.
   2009; 42 (2): 173-178
- Subtyping Women With Bulimia Nervosa Along Dietary and Negative Affect Dimensions: Further Evidence of Reliability and Validity JOURNAL OF CONSULTING AND CLINICAL PSYCHOLOGY

Stice, E., Bohon, C., Marti, C. N., Fischer, K. 2008; 76 (6): 1022-1033

• Relation of Reward From Food Intake and Anticipated Food Intake to Obesity: A Functional Magnetic Resonance Imaging Study JOURNAL OF ABNORMAL PSYCHOLOGY

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- Relations of bulilmic symptom frequency and intensity to psychosocial impairment and health care utilization: Results from a community-recruited sample INTERNATIONAL JOURNAL OF EATING DISORDERS

Spoor, S. T., Stice, E., Burton, E., Bohon, C. 2007; 40 (6): 505-514

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