

Sonja Yokum

EDUCATION

- **University of Texas at Austin/Oregon Research Institute**
Post doctorate 2006-2008. Focus: eating disorders, obesity, and neuroimaging
- **Tilburg University, the Netherlands**
Ph.D. in Health Psychology 2002-2006
Dissertation: Feeling Bad, Fat, or Ugly: Inner Body versus Outward Appearance in Women.
- **Radboud University Nijmegen, the Netherlands**
M.Sc. (Highest Honors) in Pedagogy/Educational Psychology 1999

RESEARCH INTERESTS

- Reward-related Neural Responses to Food Cues
- Attentional Biases to Food Cues
- Role of Food Environment and Social Determinants in the Obesity Epidemic
- Assessment of Overeating
- Diagnostic and Assessment Issues in Eating Disorders

RESEARCH/TEACHING EXPERIENCE

Eating Disorder and Obesity Lab, Eugene, OR

Post doctorate, Research Associate, Research Scientist

2006-present

- Writing grant applications
- Publishing papers in peer reviewed journals
- Conducting grant funded studies
- Developing and conducting pilot studies
- Recruiting and training research assistants
- Conducting diagnostic interviews
- Collecting behavioral and survey data on symptomology of eating disorders, obesity, substance use, and depression
- Analyzing interview, survey, and brain imaging data

Tilburg University, Health Psychology Department

Doctoral Candidate in Health Psychology

2002-2006

Supervisor: Professor Guus van Heck, Ph.D.

- **Thesis:** Examining risk factors for eating disorders
 - Conducting diagnostic interviews
 - Collecting behavioral and survey data on symptomatology of eating disorders
 - Analyzing and write up of data for publication
- **Gender and Health, Co-Instructor** Spring 2003 and Spring 2004
 - Developed course material, such as syllabus, examinations, and writing assignments. Delivered weekly lectures on topics, such as gender identity, gender stereotypes, and eating disorders. Graded student exams and projects, conducted office hours, and submitted final grades.

University of Groningen, Psychiatry Department

Research assistant for the TRAILS project

2001-2002

- Recruited and scheduled parents and children for a longitudinal study via phone, email, and postal mail
- Collected participants' self-report and behavioral data and clinical assessment data on personality measures and symptomology of conduct disorder and attention deficit disorder

- Created paper and electronic filing systems for the project
- Upheld confidentiality and strict adherence to IRB protocols
- Entered large volumes of self-report and testing data in SPSS
- Compiled all data files for analysis using SPSS and Excel

PEER REVIEWED JOURNAL PUBLICATIONS

Research Support

Active grants

R01 DA055027

Gearhardt (PI)

9/22-6/27

A Biopsychobehavioral Investigation of Withdrawal from Ultra-Processed Food in Humans

Role: Co-Investigator

R33 MH111782

Stice (PI)

7/17-7/24

Target Engagement of a Novel Dissonance-Based Treatment for DSM-5 Eating Disorders

Role: Co-Investigator

Completed grants

R01 MH112743

Stice (PI)

7/17-7/22

Translational Neuroscience: Response Training for Obesity Treatment

Role: Co-Investigator

R01DK102532

Gearhardt (PI)

4/15-4/18

Food Marketing Vulnerability and Increased Risk for Weight Gain in Adolescents

Role: Co-Investigator

R01 DK092468

Stice (PI)

5/12-5/17

An fMRI Test of the Dynamic Vulnerability Model of Obesity: Risk Factor Plasticity

Role: Co-Investigator

R01 DK80760

8/9-8/16

Relations of Consummatory and Anticipatory Food Reward to Obesity

Stice/Yokum (MPI)

Role: Multiple PI

Publications

- 1) Stice, E., Rohde, P., **Yokum, S.**, Gau, J., Bohon, C., & Shaw, H. (2023). A randomized trial of two group-delivered transdiagnostic eating disorder treatments: Dissonance-based treatment versus interpersonal psychotherapy. *Journal of Consulting and Clinical Psychology, 91*(12), 683–693
- 2) Stice, E., & **Yokum, S.** (2023). Elevated reward, emotion, and memory region response to thin models predicts eating disorder symptom persistence: A prospective fMRI study. *Journal of Psychopathology and Clinical Science, 132*(6), 716-724.

- 3) **Yokum, S.,** & Stice, E. (2023). Relation of overweight/obesity to reward region response to food reward and the moderating effects of parental history of eating pathology in adolescent females. *Nutrients*, *15*(11), 2558.
- 4) **Yokum, S.,** & Stice, E. (2023). Relation of BOLD response to food-specific and generic motor response inhibition tasks to body fat gain in adults with overweight and obesity. *Physiology & behavior*, *267*, 114206. Advance online publication.
- 5) Stice, E., **Yokum, S.,** Nelson, T., Berkman, E., Veling, H., & Lawrence, N. (2022). Efficacy of a combined food response inhibition and attention training for weight loss. *Current Opinion in Behavioral Sciences*, *46*, 101168.
- 6) **Yokum, S.** Gearhardt, A. N., & Stice, E. (2021). In search of the most reproducible neural vulnerability factors that predict future weight gain: Analyses of data from six prospective studies. *Social Cognitive and Affective Neuroscience*, *nsab013*. Advance online publication.
- 7) Sadler, J. R., Shearrer, G. E., Papantoni, A., **Yokum, S.,** Stice, E., & Burger, K. S. (2021). Correlates of neural adaptation to food cues and taste: The role of obesity risk factors. *Social Cognitive and Affective Neuroscience*, *nsab018*. Advance online publication.
- 8) Stice, E., **Yokum, S.,** Rohde, P., Gau, J., & Shaw, H. (2021). Evidence that a novel transdiagnostic eating disorder treatment reduces reward region response to the thin beauty ideal and high-calorie foods. *Psychological Medicine*, 1-11.
- 9) Nelson, T. D., Brock, R. L., **Yokum, S.,** Tomaso, C. C., Savage, C. R., & Stice, E. (2021) Much ado about missingness: A demonstration of full information maximum likelihood estimation to address missingness in functional magnetic resonance imaging data. *Frontiers in Neuroscience*, *15*, 746424.
- 10) Stice, E. & **Yokum, S.** (2021). Neural vulnerability factors that predict future weight gain. *Current Obesity Reports*, *10*, 435-443.
- 11) Stice, E., **Yokum, S.,** Rohde, P., Cloud, K., & Desjardin, C.D. (2021). Comparing healthy adolescent females with and without parental history of eating pathology on neural responsivity to food and thin models and other potential risk factors. *Journal of Abnormal Psychology*, *130*(6), 608.
- 12) Domoff, S. E., Sutherland, E., **Yokum, S.,** & Gearhardt, A. N. (2021). The association of adolescents' television viewing with Body Mass Index Percentile, food addiction, and addictive phone use. *Appetite*, *157*, 104990.
- 13) **Yokum, S.,** Bohon, C., Berkman, E., & Stice, E. (2021). Test-retest reliability of functional MRI food receipt, anticipated receipt, and picture tasks. *American Journal of Clinical Nutrition*, *114*(2), 764-779.
- 14) Harris, J. L., **Yokum, S.,** & Fleming-Milici, F. (2021). Hooked on junk: Emerging evidence on how food marketing affects adolescents' diets and long-term health. *Current Addiction Reports*, *8*, 19-27.
- 15) Boman-Davis, M. C., Jiménez, J. A., & **Yokum, S.** (2020). Food insecurity and likely psychological distress: Isolation of BMI and income among women in California. *Journal of Hunger and Environmental Nutrition*, *16*(1), 95-108.
- 16) Domoff, S. E., Sutherland, E., **Yokum, S.,** & Gearhardt, A. N. (2020). Adolescents' addictive phone use: associations with eating behaviors and adiposity. *International Journal of Environmental Research and Public Health*, *17*(8), 2861.
- 17) Borowitz, M. A., **Yokum, S.,** Duval, E. R., & Gearhardt, A. (2020). Weight-related differences in salience, default mode, and executive function network connectivity in adolescents. *Obesity (Silver Spring)*, *28*(8), 1438-1446.
- 18) Gearhardt, A. N., **Yokum, S.,** Harris, J. L., Epstein, L. H., & Lumeng, J. C. (2020). Neural response to fast food commercials in adolescents predicts intake. *American Journal of Clinical Nutrition*, *111*(3), 493-502.
- 19) Yang, X., Casement, M., **Yokum, S.,** & Stice, E. (2019). Negative affect amplifies the relation between appetitive food-related neural responses and weight gain over three-year follow-up among adolescents. *NeuroImage Clinical* *24*, 192967.
- 20) **Yokum, S.** & Stice, E. (2019). Weight gain is associated with changes in neural response to palatable food tastes varying in sugar and fat and palatable food images: a repeated-measures fMRI study. *American Journal of Clinical Nutrition*, *110*(6), 1275-1286.

- 21) Stice, E., **Yokum, S.**, & Voelker, P. (2019). Relation of FTO to BOLD response to receipt and anticipated receipt of food and monetary reward, food images, and weight gain in healthy weight adolescents. *Social Cognitive and Affective Neuroscience*, *15*(10), 1135-1144.
- 22) Stice, E., **Yokum, S.**, Rohde, P., Shaw, H., Gau, J. M., Johnson, S., & Johns, A. (2019). Randomized trial of a dissonance-based group treatment for eating disorders: an evaluation of target engagement. *Journal of Consulting and Clinical Psychology*, *87*(9), 772-786.
- 23) Schulte, E. M., **Yokum, S.**, Jahn, A., & Gearhardt, A. N. (2019). Food cue reactivity in food addiction: a functional magnetic resonance imaging study. *Physiology & Behavior*, *208*, 112574.
- 24) Stice, E. & **Yokum, S.** (2018). Relation of neural response to palatable food tastes and images to future weight gain: Using bootstrap sampling to examine replicability of neuroimaging findings. *NeuroImage*, *183*, 522-531.
- 25) Stice, E. & **Yokum, S.** (2018). Effects of gymnemic acids lozenge on reward region response to receipt and anticipated receipt of high-sugar food. *Physiology and Behavior*, *194*, 568-576.
- 26) Stice, E., **Yokum, S.**, & Gau, J.M. (2017). Gymnemic acids lozenge reduces short-term consumption of high-sugar food: A placebo controlled experiment. *Journal of Psychopharmacology*, *31*(11), 1496-1502.
- 27) Stice, E., **Yokum, S.**, Veling, H., Kemps, E., & Lawrence, N. (2017). Pilot test of a novel food response and attention training treatment for obesity: Brain imaging data suggest actions shape valuation. *Behaviour Research and Therapy*, *94*, 60-70.
- 28) Winter, S. R., **Yokum, S.**, Stice, E., Osipowicz, K., & Lowe, M. R. (2017). Elevated reward response to receipt of palatable food predicts future weight variability in healthy-weight adolescents. *American Journal of Clinical Nutrition*, *105*(4), 781-789.
- 29) **Yokum, S.** & Stice, E. (2016). Initial body fat gain is related to brain volume changes in adolescents: A repeated-measures voxel-based morphometry study. *Obesity (Silver Spring)*, *25*(2), 401-407.
- 30) Stice, E., **Yokum, S.**, & Hume, D. (2016). Reply to DA Schoeller. *American Journal of Clinical Nutrition*, *104*(5), 1486-1487.
- 31) Stice, E., & **Yokum, S.** (2016). Gain in body fat associated with increased striatal response to palatable food cues whereas body fat stability is associated with decreased striatal response. *Journal of Neuroscience*, *36*(26), 6949-6956.
- 32) Hume, D. J., **Yokum, S.**, & Stice, E. (2016). Low energy intake plus low energy expenditure (low energy flux), not energy surfeit, predicts future body fat gain. *American Journal of Clinical Nutrition*, *103*(6), 1389-1396.
- 33) Stice, E. & **Yokum, S.** (2016). Neural vulnerability factors that increase risk for future weight gain. *Psychological Bulletin*, *142*(5), 447-471.
- 34) Stice, E., **Yokum, S.**, & Waters, A. (2015). Dissonance-based eating disorder prevention program reduces reward region response to thin models: How actions shape valuations. *PLoS One*, *10*(12), e0144530.
- 35) Schulte, E.M., **Yokum, S.**, Potenza, M.N., & Gearhardt, A.N. (2016). Neural systems implicated in obesity as an addictive disorder: from biological to behavioral mechanisms. *Progress in Brain Research*, *223*, 329-346.
- 36) Stice, E., Burger, K. S., & **Yokum, S.** (2015). Reward region responsivity predicts future weight gain and moderating effects of the TaqIA Allele. *Journal of Neuroscience*, *35*(28), 10316-10324.
- 37) **Yokum, S.**, Marti, C. N., Smolen, A., & Stice, E. (2015). Relation of the multilocus genetic composite reflecting high dopamine signaling capacity to future increases in BMI. *Appetite*, *87*, 38-45.
- 38) Stice, E., **Yokum, S.**, Burger, K. S., Rohde, P., Shaw, H., & Gau, J. (2015). A pilot randomized trial of a cognitive reappraisal obesity prevention program. *Physiology & Behavior*, *138*, 124-132.
- 39) **Yokum, S.**, Gearhardt, A. N., Harris, J. L., Brownell, K. D., & Stice, E. (2014). Individual differences in striatum activity to food commercials predict weight gain in adolescents. *Obesity (Silver Spring)*, *22*(12), 2544-2551.

- 40) Epstein, L. H., **Yokum, S.**, Feda, D. M., & Stice, E. (2014). Food reinforcement and parental obesity predict future weight gain in non-obese adolescents. *Appetite*, 82, 138-142.
- 41) Stice, E., & **Yokum, S.** (2014). Brain reward region responsivity of adolescents with and without parental substance use disorders. *Psychology of Addictive Behaviors*, 28(3), 805-815.
- 42) Gearhardt, A. N., **Yokum, S.**, Stice, E., Harris, J. L., & Brownell, K. D. (2014). Relation of obesity to neural activation in response to food commercials. *Social Cognitive and Affective Neuroscience*, 9(7), 932-938.
- 43) Stice, E., Burger, K. S., & **Yokum, S.** (2013). Relative ability of fat and sugar tastes to activate reward, gustatory, and somatosensory regions. *American Journal of Clinical Nutrition*, 98(6), 1377-1384.
- 44) **Yokum, S.** & Stice, E. (2013). Cognitive regulation of food craving: effects of three cognitive reappraisal strategies on neural response to palatable foods. *International Journal of Obesity*, 37(12), 1565-1570.
- 45) Stice, E., Becker, C. B., **Yokum, S.** (2013). Eating disorder prevention: Current evidence-base and future directions. *International Journal of Eating Disorders*, 46(5), 478-485.
- 46) Stice, E., **Yokum, S.**, Burger, K. (2013). Elevated reward region responsivity predicts future substance use onset but not overweight/obesity onset. *Biological Psychiatry*, 73(9), 869-876.
- 47) Stice, E., Burger, K., & **Yokum, S.** (2013). Caloric deprivation increases responsivity of attention and reward regions to intake, anticipated intake, and images of palatable foods. *NeuroImage*, 67, 322-330.
- 48) Gearhardt, A. N. & **Yokum, S.** (2012). Defining food addiction and assessing its role in treatments. *Directions in Psychiatry*, 32, 15-22.
- 49) Stice, E., **Yokum, S.**, Burger, K.S., Epstein, L., & Smolen, A. (2012). Multilocus genetic composite reflecting dopamine signaling capacity predicts reward circuitry responsivity. *Journal of Neuroscience*, 32(29), 10093-10100.
- 50) **Yokum, S.**, Ng, J., & Stice, E. (2012). Relation of regional gray and white matter volumes to current BMI and future increases in BMI: a prospective MRI study. *International Journal of Obesity*, 36(5), 656-664.
- 51) **Yokum, S.**, Ng, J., & Stice, E. (2011). Attentional bias to food images associated with elevated weight and future weight gain: an fMRI study. *Obesity (Silver Spring)*, 19(9), 1775-1783.
- 52) Gearhardt, A. N., **Yokum, S.**, Orr, P. T., Stice, E., Corbin, W. R., & Brownell, K. D. (2011). Neural correlates of food addiction. *Archives of General Psychiatry*, 68(8), 808-816.
- 53) Ng, J., Stice, E., **Yokum, S.**, & Bohon, C. (2011). An fMRI study of obesity, food reward, and perceived caloric density. Does a low-fat label make food less appealing? *Appetite*, 57(1), 65-72.
- 54) Stice, E., **Yokum, S.**, Burger, K. S., Epstein, L. H., & Small, D. M. (2011). Youth at risk for obesity show greater activation of striatal and somatosensory regions to food. *Journal of Neuroscience*, 31(12), 4360-4366.
- 55) Stice, E., **Yokum, S.**, Zald, D., & Dagher, A. (2011). Dopamine-based reward circuitry responsivity, genetics, and overeating. *Current Topics in Behavioral Neuroscience*, 6, 81-93.
- 56) Batterink, L., **Yokum, S.**, & Stice, E. (2010). Body mass correlates inversely with inhibitory control in response to food among adolescent girls: an fMRI study. *NeuroImage*, 52(4), 1696-1703.
- 57) Stice, E., **Yokum, S.**, Blum, K., & Bohon (2010). Weight gain is associated with reduced striatal response to palatable food. *Journal of Neuroscience*, 30(39), 13105-13109.
- 58) Stice, E., **Yokum, S.**, Bohon, C., Marti, N., & Smolen, A. (2010). Reward circuitry responsivity to food predicts future increases in body mass: Moderating effects of DRD2 and DRD4. *NeuroImage*, 50(4), 1618-1625.
- 59) Ahern, A., Field, M., **Yokum, S.**, Bohon, C., Epstein, L., & Stice, E. (2010). Relation of dietary restraint scores to cognitive biases and reward sensitivity. *Appetite*, 55(1), 61-68.

- 60) Stice, E., **Spoor, S.**, Ng, J., & Zald, D.H. (2009). Relation of obesity to consummatory and anticipatory food reward. *Physiology & Behavior*, 97(5), 551-560.
- 61) Stice, E., **Spoor, S.**, Bohon, C., & Small, D. M. (2008). Relation between obesity and blunted striatal response to food is moderated by Taq1A1 DRD2 Gene. *Science*, 322(5900), 449-452.
- 62) Bohon, C., Stice, E., & **Spoor, S.** (2009). Female emotional eaters show abnormalities in consummatory and anticipatory food reward: a functional magnetic resonance imaging study. *International Journal of Eating Disorders*, 42(3), 210-221.
- 63) Stice, E., **Spoor, S.**, Bohon, C., Veldhuizen, M., & Small, D. (2008). Relation of reward from food intake and anticipated intake to obesity: A functional magnetic resonance imaging study. *Journal of Abnormal Psychology*, 117(4), 924-935.
- 64) Stice, E. Marti, C. N., **Spoor, S.**, Presnell, K., & Shaw, H. (2008). Dissonance and healthy weight eating disorder prevention programs: Long-term effects from a randomized efficacy trial. *Journal of Consulting and Clinical Psychology*, 76(2), 329-340.
- 65) Stice, E., & **Spoor, S.** (2007). Stability of eating disorder diagnoses: A commentary. *International Journal of Eating Disorders*, 40(S3), s79-s82.
- 66) **Spoor, S.**, Stice, E., Burton, E., & Bohon, C. (2007). Relations of bulimic symptom frequency and intensity to psychosocial impairment and health care utilization in a community-recruited sample. *International Journal of Eating Disorders*, 40(6), 505-514.
- 67) **Spoor, S.**, Bekker, M. H. J., Van Strien, T., & Van Heck, G. L. (2007). Relations between negative affect, coping, and emotional eating. *Appetite*, 48(3), 368-376.
- 68) **Spoor, S.**, Stice, E., Bekker, M. H. J., Van Strien, T., Croon, M. A., & Van Heck, G. L. (2006). Relations between dietary restraint, depressive symptoms, and binge eating: A longitudinal study. *International Journal of Eating Disorders*, 39(8), 700-707.
- 69) **Spoor, S.**, Bekker, M. H. J., Van Heck, G. L., Croon, M. A., & Van Strien, T. (2005). Inner Body and Outward Appearance: The relationships between appearance orientation, eating disorder symptoms and internal body awareness. *Eating Disorders*, 13, 479-490.
- 70) **Spoor, S.**, & De Kemp, R. (2004). Jonge recidiverende delinquenten: de noodzaak van intensieve en multimethodische behandeling [Juvenile delinquents: The necessity of intensive and multi-methodical treatment]. *Tijdschrift voor Orthopedagogiek*, 7/8, 301-311.
- 71) **Spoor, S.** (2003). Innerlijk, uiterlijk en eetstoornissen: Sensaties en emoties [Inner body, outward appearance and eating disorders: Sensations and emotions]. *Magazine Vrouwen en Gezondheid*, 2, 26-31.

Book Chapters

1. **Yokum, S.** & Stice, E. (2019). Neuroimaging of compulsive disorders: Similarities of food addiction with drug addiction. In P. Cottone, C. F. Moore, V. Sabino, & G. Koob (Eds.), *Compulsive Eating Behavior and Food Addiction: Emerging Pathological Constructs* (pp. 329-358). San Diego: Elsevier Science Publishing Co Inc.
2. Stice, E. & **Yokum, S.** (2016). Cognitive neuroscience and the risk for weight gain. In T. Walsh & K. D. Brownell (Eds.), *Eating Disorders and Obesity: a Comprehensive Handbook* (pp. 78-84). New York: Guilford Press
3. Schulte, E., **Yokum, S.**, Potenza, M., & Gearhardt, M. (2016). Neural systems implicated in obesity as an addictive disorder: from biological to behavioral mechanisms. In H. Ekhtiari & M. Paulus (eds.), *Neuroscience for Addiction Medicine: From Prevention to Rehabilitation – Constructs and Drugs, Vol 223* (pp. 329-346). PBR, UK: Elsevier.
4. Stice, E., **Yokum, S.**, & Burger, K. (2014). Neural vulnerability factors that increase risk for weight gain: Prevention and treatment implications. In C. Nobrega & R. Rodriguez-Lopez (Eds.), *Molecular Mechanisms Underpinning the Development of Obesity* (pp. 73-86). New York: Springer.
5. **Yokum, S.** & Stice, E. (2012). Genes and reward circuitry as predictors of eating and weight gain. In K. D. Brownell & M. S. Gold (Eds), *Food and addiction: a comprehensive handbook* (pp.194-200). Oxford: Oxford University Press.
6. Stice, E., **Yokum, S.**, Zald, D., & Dagher, A. (2010). Dopamine-based reward circuitry responsivity, genetics, and overeating. In R. A. H. Adan & W. H. Kaye (Eds.), *Behavioral Neurobiology of Eating Disorders, Current topics in behavioural Neurosciences* (pp. 81-93). Berlin: Springer.

7. Bekker, M. H. J., & **Spoor, S.** (2008). Emotions and sensations in eating disorders: The role of (over)sensitivity to others. In J. K. I. Denollet, A. J. J. M. Vingerhoets, & I. Nyklicek (Eds.), *Emotion Regulation: Conceptual and clinical issues* (pp. 170-183). The Netherlands: Springer.
8. Van Acker, J.C.A., de Kemp, R.A.T. & **Spoor, S.** (2001). Behandeling van recidiverende delinquenten: Follow-up na 1 jaar. [Treatment of repeat juvenile offenders]. In J.R.M. Gerris (Ed.), *Jeugdzorg en jeugdbeleid naar integraal welzijn* (pp. 49-56). Assen: Van Gorcum.