

**BIOGRAPHICAL SKETCH**

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NAME: Farris, Samantha Gwen

eRA COMMONS USER NAME (credential, e.g., agency login): sfarris

POSITION TITLE: Associate Professor

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.*)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
Rutgers University, New Brunswick, NJ	B.A.	06/2009	Psychology, Sociology
University of Houston, Houston, TX	M.A.	12/2012	Psychology
University of Texas MD Anderson Cancer Center, Houston, TX	Predocctoral Fellowship	06/2015	Cancer Prevention Research
University of Houston, Houston, TX	Ph.D.	06/2016	Clinical Psychology
Alpert Medical School of Brown University, Providence, RI	Internship	06/2016	Clinical Psychology
Alpert Medical School of Brown University, Providence, RI	Postdoctoral Fellowship	07/2018	Cardiovascular Behavioral Medicine

**A. Personal Statement**

I am an Associate Professor, core faculty in the Clinical Psychology PhD program, and the Director of the Rutgers Emotion, Health and Behavior (REHAB) Laboratory at Rutgers University. My expertise is in conducting phase I translational research from an experimental medicine framework to understand the biological, emotional, and behavioral underpinnings of anxiety and health. My training and research in this area has been continuously funded by NIH for the past nine years, and I have published over 120 peer-reviewed publications that primarily focus on identifying bio-behavioral mechanisms that drive anxiety and health behaviors (e.g., smoking, substance use, physical inactivity), to inform the development of well-specified, targeted tailored behavioral interventions. I am also a licensed clinical psychologist, and specialize in the treatment of anxiety disorders generally, and specifically in individuals with co-occurring problem health behaviors or patients with medical conditions. In my lab, we utilize various methodological approaches in our research, including naturalistic assessment of bio-behavioral processes (e.g., ecological momentary assessment; R21AA028994; R21DA045182), stress/fear-provocation in the human laboratory (R21DA052723; F31DA035564), and Stage I/II clinical trials to develop and evaluate new targeted bio-behavioral interventions (R34DA043751; R01AG070136). Taken together, my research program and related expertise is directly aligned with the research goals of the Cancer Prevention and Control Research Program at the Rutgers Cancer Institute of New Jersey.

Ongoing projects that I would like to highlight include:

R01-AG070136-02S1  
NIH/OD

Farris (PI)  
\$110,740 (total)

09/13/2022-07/31/2023

**Development of a novel exercise threat attentional bias assay**

Informational processing deficits are characteristic of anxiety pathology and can be indexed via attentional bias to threatening cue. We aim to develop a novel assessment of attentional bias to exercise cues to better understand how deficits in information processing contributes to exercise anxiety, whether it is modifiable via

intervention, and if it is modifiable, whether decreases in attentional bias are associated/are predictive of subsequent physical activity and exercise participation.

Role: PI

F31-AG077897-01 Kibbey (PI) / Farris (Sponsor) 07/01/2022-06/30/2025  
NIH/NIA \$138,876 (total)

**Measurement of Exercise Avoidance and False Safety Behaviors in Older Adults**

This is a measure development study designed to develop and evaluate a measure of exercise avoidance and false safety behaviors, relevant for use in cardiac rehabilitation. Study activities will include multi-modal methods of initial item generation followed by psychometric testing of items through exploratory factor analysis, item reduction, confirmatory factor analysis, and tests of reliability and validity.

Role: Sponsor/Mentor

R01-AG077179-01 Pack (PI) 04/01/2022-03/30/2027  
NIH/NIA \$3,233,910 (total)

**Improving outcomes from cardiac rehabilitation among older adults through exercise testing and individualized exercise intensity prescriptions**

In this project, we will evaluate the impact of a tailored exercise prescription that optimizes exercise intensity in cardiac rehabilitation, compared to usual care, with the goal to maximize fitness gains and long-term physical activity. We anticipate our results will help improve exercise prescription tailoring to help older adults increase their fitness, improve their levels of physical activity, and enjoy both a better quality and quantity of life as they age.

Role: Co-I

TCRP F-29 Brennen (PI) 11/15/2021-11/14/2023  
National Academies of Sciences \$300,000

**Mental Health, Wellness, and Resilience for Transit System Workers**

This project involves multi-method studies of mental health, resilience and wellness in transit system workers. We will conduct a literature review, focus groups with frontline workers, interviews with agency leadership, all to inform a national survey of frontline transit workers. The survey results will be used to develop a toolkit for transit system agencies to support the mental health and wellness of their workforce.

Role: Co-I

R21-AA028994-01 Farris/Abrantes (MPI) 09/22/2021-08/31/2023  
NIH/NIAAAA \$419,411 (total)

**Linkages between Ovarian Hormones and Affective Dysfunction with Alcohol Use, Reward and Reinforcement**

The current proposal aims to examine the role of fluctuations in progesterone and estradiol (ovarian hormones) as biological mechanisms of affective dysfunction that maintain the rewarding effects of alcohol in females with heavy drinking. This study involves a within-subjects, observational design with prospective daily assessment of the course of the menstrual cycle.

Role: MPI

R21-DA052723-01A1 Leyro/Farris (MPI) 09/30/2021-08/31/2023  
NIH/NIDA/OD \$453,079 (total)

**A Puff Topography Biofeedback Paradigm to Reduce Stress-Precipitated Smoking Reinforcement**

This project involves an experimental design to evaluate the acute effects of a novel puff topography biofeedback paradigm informed by autonomic psychophysiology to attenuate stress-precipitated smoking reinforcement in emotionally vulnerable smokers.

Role: MPI

R01-AG070136-01 Farris (PI) 08/15/2021-07/31/2026  
NIH/NIA \$2,775,830 (total)

**A Tailored Exposure Intervention Targeting Exercise Anxiety-Avoidance in Cardiac Rehabilitation**

This is a randomized clinical trial designed to test the efficacy of our new exposure therapy, called Behavioral Exposure for Interoceptive Tolerance (BE-FIT), for older adults enrolled in outpatient cardiac rehabilitation that

reduces exercise anxiety, a common barrier to physical activity. Cognitive, behavioral, and physiological features of exercise anxiety will be evaluated at target mechanisms BE-FIT.

Role: PI

## **B. Positions and Honors:**

### **Positions and Scientific Appointments**

2022- Associate Professor (with Tenure), Department of Psychology, Rutgers University  
2021- Adjunct Assistant Professor, Department of Medicine, Robert Wood Johnson Medical School  
2020- Licensed Psychologist, State of New York (#024099-01)  
2018- Member, Center for Alcohol and Substance Use Studies (CAS), Research University  
2018- Full Member, Cancer Prevention and Control Research Program, Rutgers Cancer Institute of New Jersey  
2018-2022 Assistant Professor, Department of Psychology, Rutgers University  
2018- Licensed Psychologist, State of New Jersey (#35SI00600200)  
2017- Licensed Psychologist, State of Rhode Island (#PS01643)  
2016-2018 NHLBI T32 Postdoctoral Research Fellow, Alpert Medical School of Brown University, and The Miriam Hospital Centers for Behavioral and Preventative Medicine  
2015-2016 Clinical Psychology Resident, Alpert Medical School of Brown University, Clinical Psychology Training Consortium, Department of Psychiatry and Human Behavior  
2013-2015 NCI R25T Predoctoral Fellow in Cancer Prevention Research Training, University of Texas MD Anderson Cancer Center  
2012-2015 Graduate Student Reviewer, Committee for Protection of Human Subjects, Institutional Review Board, University of Houston  
2011-2012 Graduate Research Assistant, Anxiety and Health Research Laboratory, University of Houston  
2009-2011 Research Assistant, Center for the Treatment and Study of Anxiety, University of Pennsylvania Perlmutter School of Medicine

### **Honors**

2019 Outstanding Research Award, Pain Special Interest Group, Society for Behavioral Medicine  
2019 Research Excellence Award, Anxiety and Depression Association of America  
2016 Alies Muskin Career Development Leadership Program, Anxiety and Depression Association of America  
2014-2015 University of Houston Dissertation Completion Fellowship  
2014-2015 Dissertation Research Award, American Psychological Association  
2013 Early Career Development Travel Award, Anxiety Disorders Association of America  
2011-2012 University of Houston Endowment Ph.D. Support  
2010 International OCD Foundation Poster Travel Award  
2009 Phillips Award for Outstanding Psychology Thesis, Rutgers University  
2009 *Magna Cum Laude*, Rutgers University

## **C. Contribution to Science**

**1. Somatic anxiety and chronic disease.** The bulk of my research focuses on interoceptive sensitivity as a trans-disease mechanism of anxiety and health. Biased interoceptive processing is central in cognitive-behavioral theories of anxiety. Interoceptive sensitivity reflects fear of one's internal bodily sensations, and can be characterized by *attentional bias* (e.g., hypervigilance), *cognitive bias* (e.g., catastrophizing in response to anticipated bodily perturbation), and distorted *physiological reactivity* (e.g., perceived intensity or magnitude of response to perturbation). TO this end, my research interests are in understanding how somatic-features of anxiety contribute to the clinical picture of chronic illness. Here, I provide examples of my work focused on understanding fear and anxiety in the context of tobacco-related cancers, cardiovascular disease, headache and migraine, and other pain-related conditions.

- a. **Farris, S. G.**, Robinson, J. D., Zvolensky, M. J., Hogan, J., Rabinus, V., Cinciripini, P. M., Karam-Hage, M., & Blalock, J. A. (2016). Panic attacks and smoking cessation among cancer patients receiving smoking cessation treatment. *Addictive Behaviors*, 61: 32-39. PMID: PMC5912332
- b. **Farris, S. G.**, & Abrantes, A. M. (2017). Anxiety sensitivity in smokers with indicators of cardiovascular disease. *Psychology, Health & Medicine*. 22(8): 961-968. PMID: 28269993

- c. **Farris, S. G.**, Burr, E. K., Abrantes, A. M., Thomas, J. G., Godley, F. A., Roth, J. L., Lipton, R. B., Pavlovic, J. M., Bond, D. B. (2019). Anxiety sensitivity as a risk indicator for anxiety, depression, and headache severity in women with migraine. Headache. 59(8):1212-1220. PMID: 31166015
- d. Rogers, A. H. & **Farris, S. G.** (2022). A meta-analysis of the associations of elements of the fear-avoidance model of chronic pain with negative affect, depression, anxiety, pain-related disability, and pain intensity. European Journal of Pain. 26: 1611-1635. PMCID: PMC9541898

**2. Somatic anxiety and mechanisms related to health risk behaviors.** Because fear is a primal motivator of escape and avoidance behaviors, this can give rise to health risk behavior (e.g., smoking to cope) or avoidance of activities that elicit internal distress (e.g., exercise). My colleague and I proposed a theoretical framework for understanding *cognitive-affective* underpinnings of anxiety (e.g., catastrophizing, uncertainty, distress intolerance) and their role in the maintenance of problematic health behavior (Farris & Zvolensky, 2019). In my research, I am interested in somatic-relevant anxiety mechanisms, like fear of arousal sensations (i.e., anxiety sensitivity) and their influence on health behavior. I utilized descriptive, observational, and experimental methods to conduct this research.

- a. **Farris, S. G.**, Metrik, J., Bonn-Miller, M. O., Kahler, C. W., & Zvolensky, M. J. (2016). Anxiety sensitivity and distress intolerance as predictors of cannabis dependence symptoms, problems, and craving: The mediating role of coping motives. Journal of Studies on Alcohol and Drugs, 77: 889-897. PMC5088172
- b. **Farris, S. G.**, & Zvolensky, M. J. (2016). An experimental test of the effect of acute anxious arousal and anxiety sensitivity on negative reinforcement smoking. Journal of Psychopharmacology. 30(7): 641–653. doi: 10.1177/0269881116642880 (no PMID/PMCID)
- c. **Farris, S. G.**, Uebelacker, L., Brown, R. A., Price, L., Desaulniers, J., & Abrantes, A. M. (2017). Anxiety sensitivity predicts increased perceived exertion during a 1-mile walk test among treatment-seeking smokers. Journal of Behavioral Medicine, 40 (6): 886-893. PMCID: PMC5659951
- d. **Farris, S.G.**, Thomas, J.G., Abrantes, A.M., Lipton, R.B., Burr, E.K., Godley, F.A., Roth, J., Pavlovic, J.M., & Bond, D.S. (2019). Anxiety sensitivity and intentional avoidance of physical activity in women with migraine. Cephalalgia. 39(11): 1465-1469. PMID: 31260336.

**3. Interoceptive exposure for the treatment of tobacco use disorder.** My mechanism-focused research (highlighted above) serves as the basis for the development of cognitive-behavioral interventions that directly target the mechanisms that we have identified to maintain problem health behaviors and chronic illness. I have extensive experience in treatment development and efficacy trials involving diverse applications of exposure therapy. One line of this work has focused on the use of interoceptive exposure to aid in smoking cessation. For example, my colleagues and I have conducted much of the formative work on the interoceptive mechanisms (anxiety sensitivity) related to smoking cessation, and have shown that a brief cognitive-behavioral smoking cessation intervention with interoceptive exposure was effective in reducing anxiety sensitivity and discomfort intolerance, and these reductions were linked to early smoking abstinence outcomes.

- a. **Farris, S. G.**, Langdon, K. J., DiBello, A. M., & Zvolensky, M. J. (2015). Why do anxiety sensitive smokers perceive quitting as difficult? The role of expecting “interoceptive threat” during acute abstinence. Cognitive Therapy and Research. 39(2): 236-244. doi:10.1007/s10608-014-9644-6 (no PMID/PMCID)
- b. Zvolensky, M. J., Bogiaizian, D., Salazar, P. L., **Farris, S. G.**, & Bakhshae, J. (2014). An anxiety sensitivity reduction smoking-cessation program for Spanish-speaking smokers (Argentina). Cognitive and Behavioral Practice. 21(3): 350-363. doi:10.1016/j.cbpra.2013.10.005 (no PMID/PMCID)
- c. **Farris, S. G.**, Leyro, T. M., Allan, N. P., Øverup, C. S., Schmidt, N. B., & Zvolensky, M. J. (2016). Distress intolerance during smoking cessation treatment. Behaviour Research and Therapy, 85, 33-42. PMCID: PMC5026956
- d. Zvolensky, M. J., Garey, L., Allan, N. P., **Farris, S. G.**, Raines, A.M., Smits, J.A.J., Kauffman, B.Y., Manning, K., Schmidt, N.B. (2018). Effects of anxiety sensitivity reduction on smoking abstinence: An analysis from a panic prevention program. Journal of Consulting and Clinical Psychology, 86(5): 474-485. PMCID: PMC6022361

**4. Exposure therapy for exercise anxiety in older adults.** My recent work has focused on addressing anxiety and exercise avoidance in the context of cardiac rehabilitation. I have conducted various descriptive, lab and measurement development to aid in the understanding and assessment of interoceptive sensitivity in the context of exercise (“exercise sensitivity”). My Stage 0 research in this domain informed my systematic,

mechanistically-informed approach to developing a brief exposure-based intervention for reducing exercise anxiety in patients attending cardiac rehabilitation. The intervention, called Behavioral Exposure for Introspective Tolerance (BE-FIT) involves in vivo (situational) and interoceptive exposure to build tolerance and acceptance to exercise and related exertion sensations. We have found that not only is BE-FIT safe and acceptable, our Stage 1a/b study suggests that BE-FIT has preliminary efficacy in increasing exercise behavior. Our Stage 2 efficacy trial of BE-FIT is currently underway.

- a. **Farris, S. G.**, Bond, D. S., Wu, W-C., Stabile, L. M., & Abrantes, A. M. (2018). Anxiety sensitivity and fear of exercise in patients attending cardiac rehabilitation. Mental Health and Physical Activity. 15, 22-26. doi.org/10.1016/j.mhpa.2018.06.005 (no PMID/PMCID)
- b. **Farris, S. G.**, Abrantes, A. M., Bond, D. S., Stabile, L. M., & Wu, W-C. (2019). Anxiety and fear of exercise in cardiopulmonary rehabilitation: Patient and practitioner perspectives. Journal of Cardiopulmonary Rehabilitation and Prevention. 39(2): E9-E13. PMCID: PMC6391737
- c. **Farris, S. G.**, Burr, E. K., Kibbey, M. M., Abrantes, A. A., & DiBello, A. M. (2020). Development and initial validation of the Exercise Sensitivity Questionnaire. Mental Health and Physical Activity. 19: 100346. doi: 10.1016/j.mhpa.2020.100346 (no PMID/PMCID)
- d. **Farris, S. G.** & Kibbey, M. M. (2022). Be brave, BE-FIT! An ACT-based exposure intervention to reduce exercise fear-avoidance in older adults. Cognitive Behaviour Therapy. 51(4): 273-294. PMCID: PMC8986621

Published Work in MyBibliography:

<https://www.ncbi.nlm.nih.gov/myncbi/samantha.farris.1/bibliography/public/>