

Research Program and Trajectory

My research focuses on expanding our understanding of emotional disorders, with the eventual goal of informing the most effective ways to modify psychotherapy and address persisting health disparities in diverse populations. This overarching research interest drives the major domains of my work: (1) elucidating psychological mechanisms by which anxiety disorders, OCD, and PTSD are maintained/treated, (2) applying an intersectional, social justice lens to address the outcomes that matter most to our communities, and (3) utilizing technology innovations to enhance such work.

(1) Mechanisms of Treatment Outcome in Fear-Based Disorders

My initial foray into clinical psychological science was with a focus on expanding our understanding about the mechanisms underlying effective treatments for anxiety-related disorders. To this end, I have been heavily involved in the study design, paradigm programming, acquisition of data, and statistical analysis of clinical trials and experimental studies examining emotion (dys)regulation as a core mechanism by which emotional disorders are maintained and successfully treated prior to my time here¹⁻⁵. I have also expanded my exploration to a wider range of hypothesized mechanisms (e.g., anxiety sensitivity, resilience, cultural values) underlying the maintenance of PTSD, OCD, and anxiety disorders over the course of effective behavioral treatments for these disorders⁶⁻¹⁰. I have incorporated numerous measures including subjective self-report data, objective timed/rated response in the context of various lab-based, computerized paradigms, and psychophysiological correlates to measure these constructs of interest. My work in this area was recognized prior to joining the department with the Early Career Achievement Award from the Anxiety Disorders SIG at ABCT in 2017.

My most recent experimental project here at the U involved a mechanistic examination using an experimental, between-subject, randomized design comparing the relative impact of three interventions adapted from evidence-based therapies for anxiety disorders (interoceptive exposure, mindfulness, and positive self-efficacy induction) on improving tolerance to distress in undergraduate participants. A range of measurement methods that are both subjective (i.e., self-report state/trait measures) and objective (i.e., latency, video-coded safety behavior) were employed. Initially set up as an in-person study in my first year, we spent the summer of 2020 porting it to an online, live Zoom format and modifying the methods (e.g., removal of psychophysiology measures). I trained a team of 5 undergraduate RAs who completed an extensive 3-week training on the study procedures and intervention fidelity, and we successfully completed data collection in March of 2021 with 136 participants. Data from this study has already been utilized in 4 national/local conference poster/symposium presentations by my students (with my undergraduate RA receiving the first-place poster ranking at the CSBS Research Day in April 2021), and manuscripts are also well underway¹¹.

(2) Community-Engaged Work and Diversity Considerations

Against this backdrop of using lab-based methods to elucidate mechanisms underlying emotional symptoms, I have consistently weaved in an examination into how these processes differ as a function of demographic diversity of the sample. My previous work in this area has included investigating prevalence and diagnostic differences in various race-ethnic groups¹²⁻¹³, examining potential factors affecting symptom report, such as discrimination¹⁴, highlighting inherent cultural exclusions due to wording of diagnostic criteria¹⁵, exploring factor structure of diagnoses¹⁶ and presenting differences in symptom presentation of fear-based pathology based on race/ethnicity (e.g.,¹⁷⁻¹⁸) and gender¹⁹⁻²⁰. From a clinical standpoint, I have also engaged in scholarship around ways to engage in culturally competent, socially just evidence-based practice²¹, including an under review sole authored book on the same topic with Oxford University Press²². In addition, I have worked with underserved, inner city, and racial minority youth populations to understand how to more efficiently detect mental health symptoms following trauma exposure in such diverse settings²³⁻²⁴. I was awarded

the Emerging Researcher Award by APA Division 45 (Society for the Psychological Study of Culture, Ethnicity and Race) in 2015 in recognition of this work.

My pursuit to greatly expand this work to bring evidence-based approaches to diverse community settings in Utah has been very fruitful. In Fall of 2019, I received a pilot grant funded through the Utah Center for Clinical and Translational Science (CCTS) and the NIH National Center for Advancing Translational Sciences (NCATS) to conduct a one-year mixed methods data collection protocol in close partnership with the Community Faces of Utah (CFU), a great organization in Salt Lake City bringing together 5 diverse community organizations that represent African refugees, African Americans, Hispanics, Pacific Islanders, and American Indians. Despite the pandemic, we successfully met all the objectives of both the qualitative (n=48) and quantitative (n=122) phases of the study in March 2021 to assess definitions, priority areas, barriers, and potential treatment options for mental health, with several publications already in press²⁵⁻²⁷. Importantly, this data allowed us to propose a testable framework for culturally adapting evidence-based treatments, which served as the basis for clinical trial grant I submitted as PI under the “Health Disparities” subsection at PCORI in April of 2021 and a recently submitted U01 grant to NIH as a major Co-I in May 2022 with colleagues in Texas to extend this work to trauma-exposed South Asians with colleagues in Texas. In addition to significant community partnership (e.g., CFU and Utah Department of Health), I am very lucky to have significant cross-disciplinary collaboration for such work with Dr. Sanchez-Birkhead (College of Nursing), and within Psychology with Drs. K. Baucom, Crowell, and Butner. I was humbled to receive the UofU Community-Engaged Teaching and Scholarship Award in 2021 for this joint work.

(3) Integration of Technology to Widen Reach to Diverse Samples

Expanding on my previous work that examined how technology use in a variety of local communities can allow us to better understand treatment mechanisms underlying effective treatment for fear-based disorders²⁸⁻²⁹, I have been able to explore technology innovations (virtual safe spaces, smart applications, interactive online trainings) in global settings. For instance, one project that has taken off despite the pandemic is my global training work in the Caribbean with providers for female and LGBTQIA+ trauma survivors in the region. Specifically, I have an ongoing collaboration with a fantastic regional women’s health rights advocacy organization, the *HERStoire Collective*, which has allowed me to conduct in-person trauma education and provider self-care workshops with some 150 stakeholders in the region so far (funded by several human rights organizations). In the Spring of 2021, we were able to continue these trainings remotely (for which I was able to train my graduate students to become clinical trainers) to 80+ providers across 7 countries in the region, the U.S., and the U.K. using Zoom and Qualtrics data collection for outcome measurement. We have several national posters/presentations (including another first-place poster ranking for my post-baccalaureate RA at APA) and have already published two papers during my time here on this work³⁰⁻³¹, with another one near completion describing remotely collected long-term follow-up data on provider implementation practices in the context of the COVID-19 pandemic³². In 2020, I was awarded the Outstanding Early Career Psychologist Award by APA Division 52 (International Psychology) for my global work.

In addition, I received an NIMH STTR Phase 1 grant as the PI with colleagues at UPenn and Dr. B. Baucom (Co-I) in April 2022 examining a new smart ring innovation that facilitates objective measurement of OCD handwashing compulsions (thereby greatly improving on our current reliance on self-report) as accurate assessment of this behavior is crucial to ensure effectiveness of front-line behavioral treatments for OCD. We are hopeful that such innovations may serve as alternative assessment (and possibly intervention) tools for communities where self-report measures and language are barriers to exposure therapy to address ongoing health disparities in anxiety treatment.

For these overlapping and integrated efforts across my areas of research, I was honored to receive the Altman Outstanding Faculty Award in our Department, and the Albano Early Career Award for the Integration of Science and Practice from ABCT this past Spring.

Selected Cited Publications (full bibliography in CV)

* Indicates Primary Mentor/Corresponding Authorship on publication

** Indicates Co-First Authorship on publication

1. Hofmann, S. G., Heering, S., Sawyer, A. T., & **Asnaani, A.** (2009). How to handle anxiety: The effects of reappraisal, acceptance, and suppression strategies on anxious arousal. *Behaviour Research and Therapy*, 47(5), 389-394. doi: 2155/10.1016/j.brat.2009.02.010
2. **Asnaani, A.**, Sawyer, A. T., Aderka, I. M., & Hofmann, S. G. (2013). Effect of suppression, reappraisal, and acceptance of emotional pictures on acoustic eye-blink startle magnitude. *Journal of Experimental Psychopathology*, 4(2), 182-193. doi:10.5127/jep.028112
3. Bullis, J.R., Boe, H.J., **Asnaani, A.***, & Hofmann, S.G. (2014). The benefits of being mindful: Trait mindfulness predicts less stress reactivity to suppression. *Journal of Behavior Therapy & Experimental Psychiatry*, 45, 57-66. doi:2097/10.1016/j.jbtep.2013.07.006
4. Kaczurkin, A.N., **Asnaani, A.***, Zhong, J., & Foa, E.B. (2016). The moderating effect of state anger on treatment outcome in female adolescents with PTSD. *Journal of Traumatic Stress*, 29(4), 325-31.
5. **Asnaani, A.**, Tyler, J., McCann, J., Brown, L., Zang, Y. (2020). Anxiety sensitivity and emotion regulation as mechanisms of successful CBT outcome for anxiety-related disorders in a naturalistic treatment setting. *Journal of Affective Disorders*, 267, 86–95.
6. **Asnaani, A.**, Alpert, E., McLean, C. P., & Foa, E. B. (2015). Resilient but addicted: The impact of resilience on the relationship between smoking withdrawal and PTSD. *Journal of Psychiatric Research*, 65, 146-153. doi:10.1016/j.jpsychires.2015.03.021
7. **Asnaani, A.**, Farris, S., Carpenter, J., Zandberg, L., & Foa, E.B. (2015). The relationship between anxiety sensitivity and posttraumatic stress disorder: What is the impact of nicotine withdrawal? *Cognitive Therapy and Research*, 39, 697-708.
8. **Asnaani, A.**, Kaczurkin, A., Tannahill, H., Fitzgerald, H. (2016). Moderators of change in social anxiety during CBT in a transdiagnostic, naturalistic treatment-seeking sample. *Journal of Experimental Psychopathology*, 7, 655-670.
9. Tyler, J., Mu, W., McCann, J., Belli, G., & **Asnaani, A.*** (2021). The unique contribution of perfectionistic cognitions in predicting anxiety disorder symptoms in a treatment-seeking sample. *Cognitive Behaviour Therapy*, 50(2), 121-137.
10. Kaczurkin, A.N., Brown, L., Simon, S., & **Asnaani, A.*** (in press). The relationship between cultural self-construal and social anxiety symptom severity in a clinical sample of treatment-seeking patients. *Transcultural Psychiatry*.
11. Kaur, K., & **Asnaani, A.*** (in preparation). Exploring the relationships among distress tolerance, psychotherapeutic techniques, and emotion regulation in a remotely delivered experimental study.
12. **Asnaani, A.**, Gutner, C.A., Hinton, D.E., & Hofmann, S.G. (2009). Panic Disorder, panic attacks, and panic attack symptoms across race-ethnic groups: Results of the Collaborative Psychiatric Epidemiology Studies. *CNS Neuroscience & Therapeutics*, 15(3), 249-254. doi: 2097/10.1111/j.1755-5949.2009.00092.x
13. **Asnaani, A.**, Richey, J. A., Dimaite, R., Hinton, D. E., & Hofmann, S. G. (2010). A cross-ethnic comparison of lifetime prevalence rates of anxiety disorders. *Journal Of Nervous and Mental Disease*, 198(8), 551-555. doi:10.1097/NMD.0b013e3181ea169f
14. Chou, T., **Asnaani, A.***, & Hofmann, S.G. (2012). Perception of racial discrimination

- and psychopathology across three U.S. ethnic minority groups. *Cultural Diversity and Ethnic Minority Psychology*, 18, 74-81.
doi:http://proxy.library.upenn.edu:2097/10.1037/a0025432
15. Hofmann, S. G., **Asnaani, A.**, & Hinton, D. E. (2010). Cultural aspects in social anxiety and social anxiety disorder. *Depression and Anxiety*, 27(12), 1117-1127.
doi:10.1002/da.20759
 16. **Asnaani, A.**, Aderka, I.M., Marques, L., Simon, N., Robinaugh, D.J., & Hofmann, S.G. (2015). The structure of feared social situations among race-ethnic minorities and Whites with social anxiety disorder in the United States. *Transcultural Psychiatry*, 52, 791-807.
doi:2097/10.1177/1363461515576823
 17. Kaczurkin, A.N., **Asnaani, A.***, Hall-Clark, B., Peterson, A.L., Yarvis, J.S., Foa, E.B., & the STRONG STAR Consortium. (2016). Ethnic and racial differences in clinically relevant symptoms in active duty military personnel with Posttraumatic Stress Disorder. *Journal of Anxiety Disorders*, 43, 90-98. doi:2097/10.1016/j.janxdis.2016.09.004
 18. Hall-Clark, B., Sawyer, B., Golik, A., & **Asnaani, A.*** (2016). Racial/ethnic differences in symptoms of posttraumatic stress disorder. *Current Psychiatry Reviews*, 12(2), 124-138.
doi:2155/10.2174/1573400512666160505150257
 19. McLean, C. P., **Asnaani, A.**, Litz, B. T., & Hofmann, S. G. (2011). Gender differences in anxiety disorders: Prevalence, course of illness, comorbidity and burden of illness. *Journal Of Psychiatric Research*, 45(8), 1027-1035. doi:10.1016/j.jpsychires.2011.03.006
 20. Asher, M., **Asnaani, A.**, & Aderka, I. M. (2017). Gender differences in social anxiety disorder: A review. *Clinical Psychology Review*, 56, 1-12.
doi:2155/10.1016/j.cpr.2017.05.004
 21. **Asnaani, A.**, & Hofmann, S. G. (2012). Collaboration in multicultural therapy: Establishing a strong therapeutic alliance across cultural lines. *Journal Of Clinical Psychology*, 68(2), 187-197. doi:10.1002/jclp.21829
 22. **Asnaani, A.** (under review). *Taking a cultural humility and social justice approach: Seven applied guidelines for evidence-based mental health practice*. Oxford University Press.
 23. Foa, E. B., **Asnaani, A.****, Zang, Y., Capaldi, S., & Yeh, R. (2018). Psychometrics of the child PTSD symptom scale for DSM-5 for trauma-exposed children and adolescents. *Journal of Clinical Child and Adolescent Psychology*, 47(1), 38-46. doi: 2155/10.1080/15374416.2017.1350962
 24. **Asnaani, A.**, Narine, K., Suzuki, N., Zang, Y., Schwartz, B., Yeh, R., Mannarino, A., Cohen, J., & Foa, E.B. (2020). Integration of technology to enhance screening of pediatric PTSD: Results from a study in primary care settings. *Journal of Child & Adolescent Trauma*, 1-10.
 25. **Asnaani, A.**, Sanchez-Birkhead, A., Kaur, K., Mukundente, V., Napia, E., Tavake-Pasi, F., Villalta, J., Lee, D., Stark, L., Brown, H., & Crowell, S. (in press). Utilizing community partnerships to devise a framework for cultural adaptations to evidence-based mental health practice in diverse communities. *Cognitive and Behavioral Practice*.
 26. Gutierrez Chavez, M., Kaur, K., Baucom, K. J. W., Sanchez-Birkhead, A., Sunada, G., Mukundente, V., Tavake-Pasi, F., Napia, E., Villalta, J., & **Asnaani, A.** (in press). Developing equitable interventions for ethnically diverse populations: Mental health and co-occurring physical health concerns in the context of the COVID-19 pandemic. *Translational Behavioral Medicine*.
 27. Kaur, K., Gutierrez Chavez, M., Tacana, T., Sanchez-Birkhead, A., Mukundente, V., Napia, E.E., Tavake-Pasi, F., Villalta, J., Lee, D., Sunada, G., Stark, L., Crowell, S., & **Asnaani, A.** (in press). Developing a best practice mental health treatment framework for

- culturally diverse communities: A mixed-methods approach. *Journal of Consulting and Clinical Psychology*.
28. **Asnaani, A.**, Zandberg, L.J., Petersen, J. (2016). Barriers to CBT training: Is mobile technology the solution? *The Clinical Psychologist*, 69(4), 6-13.
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 32. **Asnaani, A.**, Gutierrez Chavez, M., Samuel, R., Pham, A., & Charlery White, S.R. (in preparation). The impact of a brief training on implementation of evidence-based strategies for trauma by mental health providers and stakeholders in the Caribbean within the context of the COVID-19 pandemic.