

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 for a greater diversity of 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 a cross-cultural and diversity lens to address the outcomes that matter most to our communities, and (3) utilizing technology innovations to enhance such examinations.

(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 through which psychological treatments work (and do not work), a consistent theme in my current work. 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 experimental work at the U is a natural extension of my previous work. My most recently completed project 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 in collaboration with colleague Dr. Jason Goodman at the Salt Lake City VA) 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 planned psychophysiology measures). I trained a team of 5 undergraduate RAs who completed an extensive 3-week training on the study procedures and intervention fidelity under my supervision, and we successfully completed data collection in April of 2021 with 136 participants. Data from this study has already been utilized in conference poster presentations by my students (with my undergraduate RA receiving the first-place poster ranking for data from this study at the CSBS Research Day in April 2021), and manuscript preparation is also well underway¹¹.

(2) Community-Based 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 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 increase our treatment alliance in cross-cultural therapy situations in an empirically-informed fashion²¹, including an in-progress sole authored book on the same topic (under contract with Oxford University Press, due February 2022). In addition, I have engaged actively 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 settings²²⁻²³. I was awarded the Emerging Researcher Award by the APA Society for the Psychological Study of Culture, Ethnicity and Race in 2015 in recognition of this work, and the Outstanding Early Career Psychologist Award by APA Division 52 (International Psychology) for my global training and research work with frontline trauma providers in the Caribbean in 2020.

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 here in Salt Lake City bringing together 5 diverse communities: Best of Africa, Calvary Baptist Church (primarily African Americans), Hispanic Health Care Task Force, National Tongan American Society, and Urban Indian Center of Salt Lake. After a two-month delay due to COVID-19, we successfully met all the objectives of both the qualitative (n=48) and quantitative (n=122) phases of the study by March 2021 to assess definitions, priority areas, barriers, and potential treatment options for mental health, with several publications already under review or near completion from this data²⁴⁻²⁶.

Further, we have submitted a 3-year clinical trial grant (for which I am the PI) under the “Health Disparities” subsection at PCORI in April of 2021 based on this data and proposed a testable framework for culturally-adapted, evidence-based treatment. In addition to significant community partnership (e.g., both CFU and the Utah Department of Health are major collaborators on our submitted grant), I am very lucky to have significant cross-disciplinary collaboration on this project with the pilot study co-PI Dr. Ana Sanchez-Birkhead (College of Nursing), and within our department with Drs. Katie Baucom, Sheila Crowell, and Jonathan Butner.

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

Expanding on my previous work examining how technology use in a variety of local communities can facilitate my work on treatment mechanisms underlying effective treatment for fear-based disorders²⁷⁻²⁸, 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 with stakeholders in the Caribbean providing services for trauma survivors (particularly women and LGBTQIA+ community members). 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 as clinical trainers) to providers across 6+ countries in the region, U.S., and U.K. using Zoom facilitation 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 work²⁹⁻³⁰, with another near completion describing remotely collected long-term follow-up data on provider implementation practices in the context of the COVID-19 pandemic³¹.

In addition, I submitted an NIH STTR Phase 1 grant as the PI with colleagues at UPenn and Dr. Brian Baucom (Co-I) in April 2021 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 were just informed that we have been initially selected for funding for this two-year, multisite study that will utilize clinical and non-clinical participants. I hope to continue to build on my research program in technology domain, particularly as it overlays with my other research objectives.

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). The moderating role of emotion regulation on the relationship between intervention type and improvements in distress tolerance.
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.
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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.
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 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.
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 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
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 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. 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
 23. **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.
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 25. Gutierrez Chavez, M., Kaur, K., Baucom, K.J.W., Sanchez-Birkhead, A., & **Asnaani, A.*** (in preparation). Tackling health disparities through equal research partnership with racially diverse communities. *Translational Behavioral Medicine* (invited peer-reviewed submission due September 22, 2021).
 26. Kaur, K., Gutierrez Chavez, M., Tacana, T., Mukundente, V., Napia, E., Pasi, F., Villalta, J., Lee, D., Sanchez-Birkhead, A., & **Asnaani, A.*** (in preparation). A mixed-methods approach to developing a best practice mental health treatment framework for culturally diverse communities. *Journal of Consulting and Clinical Psychology* (invited peer-reviewed submission due October 1, 2021).

27. **Asnaani, A.**, Zandberg, L.J., Petersen, J. (2016). Barriers to CBT training: Is mobile technology the solution? *The Clinical Psychologist*, 69(4), 6-13.
28. **Asnaani, A.**, Benhamou, K., Kaczurkin, A.N., Turk-Karan, E., & Foa, E.B. (2020). Beyond the constraints of an RCT: Naturalistic treatment outcomes for anxiety-related disorders. *Behavior Therapy*, 51, 434-446.
29. **Asnaani, A.**, Charlery White, S.R., Majeed, I., & Phillip, T.-M. (2020). Trauma education and stigma reduction in global settings: An evaluation of the impact of a one-day trauma psychoeducation workshop with community stakeholders in the Caribbean nation of Saint Lucia. *International Journal of Environmental Research and Public Health*, 17, 2255.
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31. **Asnaani, A.**, Gutierrez Chavez, M., Samuel, R., & 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.