

Highlighted Recent Faculty Publications
Department of Psychiatry and Behavioral Neuroscience
May 2022

We are delighted to share some recent research by members of the Department of Psychiatry and Behavioral Neuroscience. Below is a selection of recent publications of our faculty. We encourage you to browse through these interesting citations to see what everyone is doing. If you see opportunities for collaborations, please reach out!



Austin Blum, MD, JD, Resident

Blum AW, Ross DA. Lifting the Veil: How the Brain Decides Blame and Punishment. *Biol Psychiatry*. 2022 Mar 1:S0006-3223(22)00060-9.

Blum A.W., Jacobson K., & Grant J.E. (2022). Legal settlements and the reporting of adverse drug events: Insights from the aripiprazole products liability litigation. *Psychiatry Research*, 309, 114411. doi:

10.1016/j.psychres.2022.114411. *This study found that physician reports of aripiprazole-induced gambling disorders significantly declined from 5.9% to 2.9% in the wake of a 2019 settlement (after which monetary damages could no longer be readily obtained).*



Neda Laiteerapong, MD, MS, FACP

Staab EM, Wan W, Campbell A, Gedeon S, Schaefer C, Quinn MT, Laiteerapong N. Elements of Integrated Behavioral Health Associated with Primary Care Provider Confidence in Managing Depression at Community Health Centers. *J Gen Intern Med*. 2022 Jan 3. PMID: 34981360

Gorman D, Staab EM, Vinci L, Laiteerapong N. Medical Assistant Protocol Improves Disparities in Depression Screening Rates. *Am J Prev Med*. 2021 Jul 17:S0749-3797(21)00322-6.

Laiteerapong N, Staab EM, Wan W, Quinn MT, Campbell A, Gedeon S, Schaefer CT, Burnet DL, Chin MH. Integration of diabetes and depression care is associated with glucose control in Midwestern federally qualified health centers. *J Gen Intern Med*. 2021 Apr;36(4):978-984.

Yin I, Staab EM, Beckman N, Vinci LM, Ari M, Araujo FS, Yohanna D, Laiteerapong N. Improving Primary Care Behavioral Health Integration in an Academic Internal Medicine Practice: 2-Year Follow-Up. *Am J Med Qual*. 2021 01;36(6):379-386.



Maureen Lacy, PhD

Satzer, D., Mahavadi, A., Lacy, M., Grant, J. E., & Warnke, P. (2021). Interstitial laser anterior capsulotomy for obsessive-compulsive disorder: Lesion size and tractography correlate with outcome. *Journal of Neurology, Neurosurgery & Psychiatry*. <https://doi.org/10.1136/jnnp-2021-327730> *Working with the neurosurgery team, Drs. Grant and Lacy examined the medical and psychiatric outcome following laser ablation for OCD.*

Wu, S., Issa, N, Lacy, M, Satzer, D., Rose, S., Yang, Collins, J., Lui, T., Towle, L., Nordi, D., Warnke, P and Tao, J (2021) Surgical outcomes and EEG prognostic factors after stereotactic laser amygdalohippocampectomy for mesial temporal lobe epilepsy *Frontiers in Neurology*. May 17; 654-668 *Working with the neurosurgery and neurology teams this study examined the outcome following laser ablation for intractable epilepsy*



Karam Radwan, MD, Joshua Kellman, MD

Kellman J, Radwan K. Towards an expanded neuroscientific understanding of social play. *Neurosci Biobehav Rev*. 2022 Jan; 132:884-891. doi: 10.1016/j.neubiorev.2021.11.005. Epub 2021 Nov 9. PMID: 34767879. *Kellman and Radwan review the literature on the neural basis of social play. They identify circuits involved in play, especially those related to behavioral switching and set*

shifting, prepulse inhibition of the acoustic startle reflex, and the basal ganglia. They suggest that the parafascicular nucleus of the thalamus plays a key role in social play and coordinates many of these circuits. Their paper elicited a commentary in the same journal "Old wine in new bottles, but with a twist"



Andrea King, PhD

King, A, A Vena, H de Wit, JE Grant, D Cao (2022) Combination treatment with varenicline and nicotine patch for smoking cessation and heavy drinking: A randomized controlled trial. *JAMA Network Open*. 2022;5(3):e220951.

Brett, E.B., Krissinger, R., & **King, A.C.** (2022). The rise and fall of e-cigarette cloud chasing appealing to youth. *Preventive Medicine Reports*. <https://doi.org/10.1016/j.pmedr.2021.101644>. PMID: 34849332, PMCID: PMC8609162

This paper examined the popular phenomenon of vape tricks and cloud-chasing that appeal to youth using e-cigarettes and describes its recent decline that may be due to changes in device and product preferences as well as the COVID pandemic.



Jon Grant, MD, JD

Grant JE, Valle S, Chesivoir E, Ehsan D, Chamberlain SR. A double-blind placebo-controlled study of brexpiprazole for the treatment of borderline personality disorder. *Br J Psychiatry*. 2021 Nov 17;220(2):1-6. doi: 10.1192/bjp.2021.159. *This clinical trial shows that a new medication, brexpiprazole, may have effect on borderline personality disorder symptoms.*

Grant JE, Drummond L, Nicholson TR, Fagan H, Baldwin DS, Fineberg NA, Chamberlain SR. Obsessive-compulsive symptoms and the Covid-19 pandemic: A rapid scoping review. *Neurosci Biobehav Rev*. 2022 Jan;132:1086-1098. doi: 10.1016/j.neubiorev.2021.10.039. *This review identified important unaddressed issues om OCD treatment, such as how should exposure based therapy be adapted during pandemics and how can we minimize harm from exacerbation of OCD in vulnerable individuals arising from public health messaging.*

Bowden-Jones H, Hook RW, Grant JE, Ioannidis K, Corazza O, Fineberg NA, Singer BF, Roberts A, Bethlehem R, Dymond S, Romero-Garcia R, Robbins TW, Cortese S, Thomas SA, Sahakian BJ, Dowling NA, Chamberlain SR. Gambling disorder in the UK: key research priorities and the urgent need for independent research funding. *Lancet Psychiatry*. 2022 Apr;9(4):321-329. doi: 10.1016/S2215-0366(21)00356-4. *In this health policy paper, we outline the status of research and treatment for disordered gambling in the UK (including funding issues) and key research that should be conducted to establish the magnitude of the problem, vulnerability and resilience factors, the underlying neurobiology, long-term consequences, and treatment opportunities.*



Harriet de Wit, PhD

de Wit H, Molla HM, Bershad A, Bremmer M, Lee R (2022) Repeated low doses of LSD in healthy adults: A placebo-controlled, dose-response study. *Addiction Biology* 27(2):e13143. doi: 10.1111/adb.13143. Epub 2022 Feb 1. PMID: 35106880. *This study addressed the popular practice of microdosing, in a double-blind, placebo controlled study. Healthy volunteers ingested small doses of LSD over a two-week period. The drug had few effects on mood or cognition.*

Weafer, J, KL Phan, H de Wit (2021) Neural correlates of inhibitory control are associated with stimulant-like effects of alcohol. *Neuropsychopharmacology* 46, 1442-1450. doi: 10.1038/s41386-021-01014-5. *Both poor inhibitory control and enhanced stimulant-like subjective effects of drugs have been linked to excessive use. Here, we present data that poor inhibitory control and alcohol reward are linked at the neural level.*

Murray CH, Huang Z, Lee R, de Wit H (2022). Adolescents are more sensitive than adults to acute behavioral and cognitive effects of THC. *Neuropsychopharmacology*. doi: 10.1038/s41386-022-01281-w. *Adolescents may be at especially high risk for adverse consequences of cannabis use. In this controlled, double blind study, we found that adolescents were more sensitive to oral THC on several measures.*



Kate Keenan, PhD

Tucker X, Berona J, Hipwell AE, Keenan K (2021). A longitudinal study of differences in perceived parenting between sexual minority and heterosexual adolescent girls. *Journal of Research on Adolescence*. 2021 Sep 23. doi: 10.1111/jora.12679. *We examine changes in perceived parenting from childhood to adolescence as a function on sexual orientation using prospectively collected data.*

Robinson WL, Whipple CR, Keenan K, Fleck C, Wingate, L. (2021). Suicide in African American adolescents: Understanding risk by studying resilience. *Annual Review of Clinical Psychology*, 2021 Nov 11. doi: 10.1146/annurev-clinpsy-072220-021819. Online ahead of print. *We present a heuristic model of suicide risk and resilience for African American adolescents that considers their development within a hegemonic society.*

Keenan K, Fu H, Tung I, Berona J, Krafty RT, Hipwell AE, Stepp SD, Carpio K. Capturing the dynamic nature of stress exposure in the Pittsburgh Girls Study. *SSM Popul Health*. 2021 Nov 30;16:100983 PMC8671117. *The science of stress exposure and health in humans has been hampered by differences in operational definitions of exposures and approaches to defining timing, leading to results that lack consistency and specificity. In the present study we derived trajectories that varied in type, timing and chronicity of stress exposure for Black and White females using prospectively collected data in the Pittsburgh Girls Study (PGS).*



Candice Norcott, PhD

Blanchard AK, Podczerwinski J, Twiss MF, Norcott C, Lee R, Pincavage AT. Resident Well-Being Before and During the COVID-19 Pandemic. *J Grad Med Educ*. 2021 Dec;13(6):858-862. PMID: 35070099; PMCID: PMC8672847.

Steenbergh K, Fess E, Dade A, Norcott C, deMartelly V, Chor J. PA perspectives on interprofessional ethics education in obstetrics/gynecology. *JAAPA*. 2021 Dec 1;34(12):1. PMID: 34813563.

Laursen L, Hebert L, Newton S, Norcott C, Gilliam M. Community Violence Exposure and Adolescent Pregnancy in Chicago. *J Interpers Violence*. 2022 Jan;37(1-2):NP742-NP756. PMID 32394782.

Norcott C, Keenan K, Wroblewski K, Hipwell A, Stepp S. The Impact of Adolescent Sexual Harassment Experiences in Predicting Sexual Risk-Taking in Young Women. *J Interpers Violence*. 2021 Aug;36(15-16):NP8961-NP8973. PMID: 31057024.



Kristen Jacobson, PhD

Chen, P., Voisin, D.R., Marotta, P.L., & Jacobson, K.C. (2020). Race and ethnic comparison of ecological risk factors and youth outcomes: A test of the desensitization hypothesis. *Journal of Child & Family Studies*, 29, 2722-2733. *This study found that associations between common risk factors (e.g., low family warmth, peer deviance), youth depression and delinquent behavior were consistently lower among youth of color, especially Black youth, in comparison to White youth.*

Franz, C.E., Hatton, S.N., Hauger, R.L., Kredlow, M.A., Dale, A.M., Eyler, L., McEvoy, L.K., Fennema-Notestine, C., Hagler, D., Jacobson, K.C., McKenzie, R.E., Panizzon, M.S., Gustavson, D.E., Xian, H., Toomey, R., Beck, A., Stevens, S., Tu, X., Lyons, M.J., & Kremen, W.S. (2020). Posttraumatic stress symptom persistence across 24 years: association with brain structures. *Brain Imaging and Behavior*, 14, 1208-1220. *This study found that higher post-traumatic stress symptoms in male Vietnam veterans aged 38 to 62 were associated with lower hippocampal, amygdala, rostral middle frontal gyrus, and medial orbitofrontal cortex volumes. Further, increases in post-traumatic stress symptoms over time were associated with lower hippocampal volume at age 62.*

Park, L., Costello, S., Li, J., Lee, R., & Jacobson, K. (2021). Race, health, and socioeconomic disparities associated with malingering in psychiatric patients at an urban emergency department. *General Hospital Psychiatry*, 71, 121-127. *This study found that emergency room patients suspected of malingering were more likely than non-malingers to be male, over age 45, Black, and unhoused. They were also more likely to be discharged without treatment. However, psychiatric diagnoses were found in ~75% of malingerers, indicating that malingering patients have unmet clinical needs.*

Blum A.W., Jacobson K., & Grant J.E. (2022). Legal settlements and the reporting of adverse drug events: Insights from the aripiprazole products liability litigation. *Psychiatry Research*, 309, 114411. doi: 10.1016/j.psychres.2022.114411. *This study found that physician reports of aripiprazole-induced gambling disorders significantly declined from 5.9% to 2.9% in the wake of a 2019 settlement (after which monetary damages could no longer be readily obtained).*



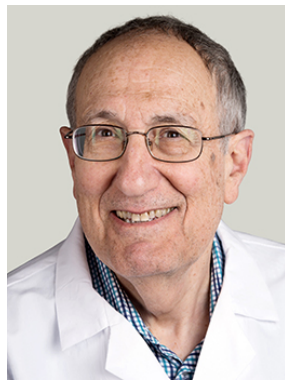
Royce Lee, MD

Lee RJ, Gozal D, Coccaro EF, Fanning J: Narcissistic and borderline personality disorders: relationship with oxidative stress. *J Pers Disord* 2020; 34: 6 – 24.

Coccaro EF, Keedy S, Malina M, Lee R, Phan KL. Neuronal responses in social-emotional information processing in impulsive aggressive individuals. *Neuropsychopharmacology*. 2022 Epub ahead of print. PMID: 35277651.

Murray CH, Huang Z, Lee R, de Wit H. Adolescents are more sensitive than adults to acute behavioral and cognitive effects of THC. *Neuropsychopharmacology*. 2022 Epub ahead of print. PMID: 35110688.

Shima C, Lee R, Coccaro EF. Associations of aggression and use of caffeine, alcohol and nicotine in healthy and aggressive individuals. *J Psychiatr Res*. 2022 Feb;146:21-27. PMID: 34942448.



Elliott Gershon, MD

Gershon ES, Lee SH, Zhou X, Sweeney JA, Tamminga C, Pearlson GA *et al*. An opportunity for primary prevention research in psychotic disorders. *Schizophr Res* 2021. *Risk of a psychosis disorder can be predicted from psychophysiological and behavioral features that predate the onset of the psychotic disorders. The predictions have accuracy, sensitivity, and specificity of 78%, 85%, and 63% respectively. Although promising, further measurements are needed to yield clinically useful predictions.*



Jennifer Wildes, PhD

Kim YK, Di Martino JM, Nicholas J, Rivera-Cancel A, Wildes JE, Marcus MD, Sapiro G, Zucker N. Parent strategies for expanding food variety: reflections of 19,260 adults with symptoms of Avoidant Restrictive Food Intake Disorder. *Int J Eat Disord*; 2022 Jan;55(1):108-119. *This study used machine learning to analyze qualitative data on the perceived helpfulness of childhood feeding strategies in adults with a prolonged history of food avoidance/restriction. Results showed that positive and encouraging feeding strategies were perceived as helpful even if they did not result in behavior change, whereas strategies perceived as coercive were regarded as unhelpful.*

Richson BN, Johnson SN, Swanson T, Christensen KA, Forbush KT, Wildes JE. Predicting probable eating disorder case-status in men using the Clinical Impairment Assessment: Evidence for a gender-specific threshold. *Eat Behav*; 2021 Aug;42:101541. *This collaboration with colleagues at the University of Kansas showed that the optimal clinical cutoff on a widely used measure of eating disorder-related impairment is lower in men than in women, which has implications for the use and interpretation of this measure in men.*

Venkatesh A, Chang A, Green EA, Randall T, Wildes JE, Graham AK. Perceived facilitators and barriers to engaging with a digital intervention among those with food insecurity, binge eating, and obesity. *Nutrients*; 2021 Jul;13(7):2458; <https://doi.org/10.3390/nu13072458>. *This study documented unique considerations in adapting a digital intervention for binge eating and obesity*

to meet the need of adults with food insecurity. Three themes emerged: 1) ability to access the intervention; 2) ability to complete intervention recommendations; and 3) preference for intervention features.



Dan Fridberg, PhD

Wang, Y., Fridberg, D.J., Shortell, D.D., Leeman, R.F., Barnett, N.P., Cook, R.L., & Porges, E.C. (2021). Wrist-worn alcohol biosensors: Applications and usability in behavioral research. *Alcohol*, 92, 25-34. *This paper, written in collaboration with colleagues from the University of Florida and Brown University, describes the latest advances in alcohol biosensor technology. We describe potential clinical and research applications of these devices, as well as results of three pilot studies deploying alcohol biosensors across a variety of settings.*

Fridberg, D.J., Cao, D., & King, A.C. (2021). Alcohol subjective responses in heavy drinkers: Measuring acute effects in the natural environment versus the controlled laboratory setting. *Alcoholism: Clinical and Experimental Research*, 45(6), 1287-1297. *This study of adult heavy drinkers was the first to assess the reliability and validity of using smartphones to capture alcohol responses during real-world heavy drinking episodes in drinkers' natural environments. Participants' responses to alcohol in the real world, as measured by smartphone, bore a fair-to-good correspondence with their responses during a controlled laboratory alcohol challenge. The results suggest that smartphones can be a valid way to collect data on real-world drinking experiences.*



Andrea Mann, DO, MPhil

Mann A, Tarshis T, Joshi SV. An Exploratory Survey of Career Choice, Training, and Practice Trends in Early Career Child and Adolescent Psychiatrists and Fellows. *Acad Psychiatry*. 2022 Feb;46(1):45-49. PMID: 31900876.



Sarah Keedy, PhD.

Coccaro EF, Keedy S, Malina M, Lee R, Phan KL. Neuronal responses in social-emotional information processing in impulsive aggressive individuals. *Neuropsychopharmacology*. 2022 Mar 11. \ PMID: 35277651.

Zhao Q, Cao H, Zhang W, Li S, Xiao Y, Tamminga CA, Keshavan MS, Pearlson GD, Clementz BA, Gershon ES, Hill SK, Keedy SK, Ivleva EI, Lencer R, Sweeney JA, Gong Q, Lui S. A subtype of institutionalized patients with schizophrenia characterized by pronounced subcortical and cognitive deficits. *Neuropsychopharmacology*. 2022 PMID: 35260788.

Tamminga CA, Pearlson G, Gershon E, Keedy S, Hudgens-Haney ME, Ivleva EI, Parker DA, McDowell JE, Clementz B. Using psychosis biotypes and the Framingham model for parsing psychosis biology. *Schizophr Res*. 2022 Apr;242:132-134. PMID: 35123865.



Daniel Yohanna, MD

Yin I, Staab EM, Beckman N, Vinci LM, Ari M, Araújo FS, Yohanna D, Laiteerapong N. Improving Primary Care Behavioral Health Integration in an Academic Internal Medicine Practice: 2-Year Follow-Up. *Am J Med Qual*. 2021 36(6):379-386. PMID: 33967190.



Khalid Afzal, MD

Robinovitz ML, Montalto GJ, Afzal KI, Lichter S, Palepu S, Oaklander D, Carollo S, Tutko J, Wildes JE. Anorexia nervosa, conduct disorder, and the juvenile justice system: a case of applying traditional treatment modalities in a non-traditional setting. *Biopsychosoc Med*. 2021 Dec 18;15(1):26. *The paper details a case of an adolescent with anorexia and conduct disorder who was successfully managed by utilizing the structure of juvenile detention center.*

Bush, L., Ohanian, D. M., Drossos, T., Afzal, K. I., & Lichter, S. (2021). Targeted neuropsychological screening in the context of a pediatric psychiatry consultation/liaison service. *Clinical Practice in Pediatric Psychology*. Advance online. <https://doi.org/10.1037/cpp0000428>
This paper focused on the use of targeted neuropsychological testing at inpatient children hospitals.

Safdar M*, Afzal KI*, Smith Z, Ali F, Zarif P, Baig ZF (2021). Suicide Poisoning in Pakistan: A Review of Regional Trends, Toxicity, and Management of Commonly Used Agents in the Past Three Decades. *BJPsych Open*. 2021 Jun 17;7(4):e114. doi: 10.1192/bjo.2021.923. PMID: 34134811; PMCID: PMC8240123. *Co-First Author
This review paper examines suicide poisoning in Pakistan, highlighting differences in various regions of the country. The type of poisoning depended on accessibility of agents such hair dyes, wheat poisoning, household chemicals, etc.

Brahmbhatt K, Mournet AM, Malas N, DeSouza C, Greenblatt J, Afzal KI, et al. (2021). Adaptations made to pediatric consultation-liaison psychiatry service delivery during the early months of the COVID-19 pandemic: A North American multi-site survey. *Journal of the Academy of Consultation-Liaison Psychiatry*. ISSN 2667-2960. <https://doi.org/10.1016/j.jaclp.2021.05.003>.
This collaborative study investigated how COVID affected the child consult-liaison delivery services in the U.S. and Canada.



Joseph Fink, Ph.D., ABPP/CN

Resch, Z.J., Paxton, J.L., Obolsky, M.A., Lapitan, F., Cation, B., Schulze, E.T., Calderone, V., Fink, J.W., Lee, R.C., Pliskin, N.H. & Soble, J.R. (2021) Establishing the base rate of performance invalidity in a clinical electrical injury sample: Implications for neuropsychological test performance, *Journal of Clinical and Experimental Neuropsychology*, 43(2), 213-223, DOI: [10.1080/13803395.2021.1914002](https://doi.org/10.1080/13803395.2021.1914002)

Paxton, J., Resch, Z., Cation, B., Lapitan, F., Obolsky, M., Calderone, V. Fink, J., Lee, R., Soble, J., & Pliskin, N. (2021). The relationship between neuropsychological dispersion,

processing speed and memory after electrical injury. *Journal of Clinical and Experimental Neuropsychology* 43(2), 144-155. DOI: [10.1080/13803395.2021.1889989](https://doi.org/10.1080/13803395.2021.1889989)

Dorociak, K., Soble, J., Rupert, P., Fink, J., Lee, R., Anitescu, M., Weiss, D., Cooke, G., Resch, Z., & Pliskin, N. (2022). Pain influences neuropsychological performance following electrical injury: A cross-sectional study. *Journal of the International Neuropsychological Society*. DOI: [10.1017/S1355617721001478](https://doi.org/10.1017/S1355617721001478)

These studies advance our program of research into the neuropsychological sequelae of electrical injury. The papers use our expanding database (the largest known dataset in the world with full neuropsychological characterization of electrical injury survivors) and demonstrate base rates of performance invalidity, characteristics of memory and processing speed impairments, and the influence of pain on neuropsychological performance.



Molly Erickson, Ph.D.

Leptourgos, P., Bansal, S., Dutterer, J., Culbreth, A., Powers, A., Suthaharan, P., Kenney, J., Erickson, M.A., Waltz, J., Wijtenburg, S.A., Gaston, F., Rowland, L.M., Gold, J., & Corlett, P. (2022). Relating glutamate, conditioned, and clinical hallucinations via 1H-MR spectroscopy. *Schizophrenia Bulletin*, Advance online publication.

Bansal, S., Bae, G.Y., Robinson, B.M., Hahn, B., Waltz, J., Erickson, M., Leptourgos, P., Corlett, P., Luck, S.J., & Gold, J.M. (2021). Association between failures in perceptual updating and the severity of psychosis in schizophrenia. *JAMA Psychiatry*.

Erickson, M.A., Hahn, B., Kiat, J.E., Allende, L.M., Luck, S.J., & Gold, J.M. (2021). Neural basis of the visual working memory deficit in schizophrenia: Merging evidence from fMRI and EEG. *Schizophrenia Research*, 236, 61-68.



Shivani Kumar, MD, Marie Tobin, MD

Kumar S, Lee NK, Pinkerton E, Wroblewski KE, Lengyel E, Tobin M. Resilience: a mediator of the negative effects of pandemic-related stress on women's mental health in the USA. *Arch Womens Ment Health*. 2022 Feb;25(1):137-146. Epub 2021 Oct 14.

Stacy Tessler Lindau, Jennifer A.

Makelarski, Kelly Boyd, Kate E. Doyle, Sadia Haider, Shivani Kumar, Nita Karnik Lee, El Pinkerton, Marie Tobin, Milkie Vu, Kristen E. Wroblewski, and Ernst Lengyel. Change in Health-Related Socioeconomic Risk Factors and Mental Health During the Early Phase of the COVID-19 Pandemic: A National Survey of U.S. Women. *Women's Health (Larchmt)*. 2021; 4(30):502-513.

Tobin MB. "Annotated abstracts on journal articles of interest in Psycho-Oncology." Bethesda, MD: Academy of Consultation-Liaison Psychiatry Medicine. December 2021 and March 2022. [<https://www.clinicalpsychiatry.org/educationcareers/annotated-abstracts/>]