

JUNE 16, 2023

ACADEMIC PSYCHIATRY

SYMPOSIUM 2023

Cultivating Collaboration

Enhancing the impact of our work
through the development of academic
and community relationships

Abstract Book

PRESENTED BY

**Department of Psychiatry
and Behavioral Sciences**

VANDERBILT UNIVERSITY
MEDICAL CENTER

**10:45am to 4:00pm
Vanderbilt Psychiatric Hospital
Luton Lecture Hall 1206**

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CME/CE Credits: 3 credit hours

This activity is sponsored by the Luton Lecture Fund , the Hollender Lecture Fund and the Orr Lecture Fund and the Department of Psychiatry and Behavioral Sciences. This educational activity received no commercial support.

For detailed CME/CE information about this session, please visit

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<https://vumc.cloud-cme.com/course/courseoverview?P=0&EID=80176>

Welcome

From the APS Organizing Committee

Welcome to the 2023 Academic Psychiatry Symposium (APS)!

The theme of this year's APS is *Cultivating Collaboration*. Our invited panel of speakers will discuss their path for developing academic and community relationships that have enhanced the impact of their work. We will also structure our poster session to facilitate new relationships within our own department. You can see that we have designated 4 collaboration groups: Aging and Cognitive, Psychosis and Mood, Neurodevelopment, and Addiction. You can use that information to plan your experience and connect with your colleagues.

Finally, the APS wishes to offer our hearty congratulations to the PGY4 class and best wishes and success on their journeys.

This year's APS will take place in the Vanderbilt Psychiatric Hospital, with oral presentations in Luton and the two back to back poster sessions in the gym. Suggested routes between the Luton Room and gym are shown on the back cover of the abstract book.



Alan Lewis, MD, PhD



Alex Bettis, PhD



Brandee Feola, PhD



Anna Huang, PhD



Rachael Muscatello, PhD



Heather Ward, MD



M.E. Wood, PhD



Jennye Laws-Woolf



Schedule

| | |
|---------------------|---|
| 10:15-10:45am | Coffee and Poster Setup VPH 1st floor Conference Center |
| 10:45-10:50am | Welcome and Introduction Luton Lecture Hall, VPH 1206 |
| 10:50-11:50am | Oral Session #1 |
| 11:50-12:00pm | Break and Pick up Box Lunch |
| 12:00-1:00pm | Collaboration Panel |
| 1:00-1:10pm | Break and transition |
| 1:10-2:10pm | Poster Sessions VPH Gym |
| 1:10-1:40pm | Poster Session A (1-20) |
| 1:40-2:10pm | Poster Session B (21-42) |
| 2:20-3:20pm | Oral Session #2 Luton Lecture Hall, VPH 1206 |
| 3:20-3:25pm | Closing Remarks VPH Gym |
| 3:25-4:00pm | Ice Cream Social |

Acknowledgements

The Department of Psychiatry and Behavioral Sciences would like to acknowledge the following contributors whose work has been instrumental to the success of this year's Academic Psychiatry Symposium:

- ◇ **Aaron Howard and the BRET Office** for the use of today's poster stands



Panel discussion:

Cultivating Collaboration

Enhancing the impact of our work through the development of academic and community relationships



Alex Bettis, PhD

Assistant Professor of Psychiatry & Behavioral Sciences

Dr. Bettis' current research aims to explore emotion regulation processes as predictors of short-term suicide risk funded by the National Institute of Mental Health. In addition, she is currently developing a parent-focused intervention to support parents of teens who present to emergency services for a mental health crisis, and this work is funded by the Klingenstein Third Generation Foundation.



Amanda Satterthwaite, MD

Assistant Professor of Psychiatry & Behavioral Sciences



Jon Ebert, PsyD

Associate Professor of Clinical Psychiatry & Behavioral Sciences

Dr. Ebert is the Associate Director of the APA approved Vanderbilt University Medical Center Internship in Professional Psychology (VUMC-IPP). Appointed by the TN Commissioner of Department of Children's Services (DCS), Dr. Ebert is Chairman of the Treatment Subcommittee for the Tennessee Joint Task Force on Children's Justice and Child Sexual Abuse and advisor for the Tennessee Best Practice Initiative which is responsible for the statewide implementation of evidence based



M.E. Wood, PhD

Assistant Professor of Psychiatry & Behavioral Sciences

Dr. Wood is a member of the Vanderbilt Forensic Evaluation Team, which provides court-ordered forensic mental health evaluations for Davidson County's criminal and juvenile justice systems. Dr. Wood's primary clinical and research interests fall at the interface of psychology and the law, with a particular emphasis on the appropriate identification, assessment, and treatment of individuals with Intellectual Disability (ID) in forensic settings.



Presenters

Oral Session 1

10:50am

Christina Burroughs, M.Ed., PhD Candidate
Executive Functioning and Social Symptoms of ASD

Allison Lake, BSc
Using Electronic Health Records to Characterize the Interaction Between Sexual Assault and Genetic Risk in Schizophrenia

Rachel Siciliano, MS
Leveraging measurement-based care and electronic health records to identify predictors of treatment response in an adolescent partial hospitalization program

Lénie Torregrossa, PhD
Interplay Between Childhood Trauma, Bodily Self-Disturbance, and Symptoms in Schizophrenia: A Network Analysis

Poster Session A

1:10-1:40pm

Poster Presenter

- 1 Alexander C. Conley, PhD**
Examining the relationship between in vivo cholinergic integrity and cortical structure and function in healthy postmenopausal women using FEOBV PET
- 2 Patricia S. Andrews, MD**
APOE4 genotype moderates the effect of benzodiazepine dose on short- and long-
- 3 Sarah M. Szymkowicz, PhD**
Cognitive Training Paired with Bifrontal tDCS Decreases Depressive Symptoms in a Non-Clinical Sample of Older Adults: Preliminary Evidence
- 4 Sheila Akavan**
Evaluating Facial Sensitivity Discrimination in Individuals with Autism: A Signal Detection Theory Approach
- 5 Camille Archer, BA**
Brain volume associations with irritability symptoms in children
- 6 Eshani R. Arumalla**
Contrasting Pain Responsivity through Spontaneous Facial Expression in Autistic and Neurotypical Individuals
- 7 Isaac Baldwin, MD**
A Case of Hyperactive Catatonia in a Patient with SYNGAP-1 Mutation

Poster Session A continued

Poster Presenter

- 8 Halle R. Bonner, BA**
Social camouflaging in autistic adolescents: Demographic and clinical correlates
- 9 Rachel E. Calvosa, BS**
Relationship Between Parental Stress, Child Stress, and Child Anxiety in Adolescents with Autism Spectrum Disorder
- 10 Melissa Dong, BA**
Exploring Parent Outcomes During Iterative Pilot Testing of a Text-Messaging Intervention for Parents After Their Child's Psychiatric Emergency
- 11 Leighton Durham, MA**
Associations between Dimensions of Internalizing Symptoms and Brain Volume in Youth
- 12 Hee Jung Jeong, MS**
The Impact of Environmental Stressors on Network Topology
- 13 John J. Lesko, MD**
A Case of Pediatric Catatonia in the Emergency Department: Age-Based Dosing Recommendations
- 14 Timothy O. Adegoke, MBBS, MPH**
A Case of Treatment-Refractory Depression Complicated by Traumatic Brain Injury and Seizure: Implications for Treatment
- 15 Mashal Ali, BA**
Relationship of sleep disorders to major psychiatric comorbidities: A retrospective analysis from a large county jail
- 16 Angela Cai, MD**
The Intersection of Art and Psychiatry in The Madhouse by Francisco Goya
- 17 Claudia Cruz Bosch, MD**
A Systematic Review of the Safety of rTMS for Schizophrenia
- 18 Brandee Feola, PhD**
Brain and Physiological Stress Responses in Early Psychosis
- 19 Andrew R. Kittleson, BA**
The insula: Leveraging cellular and systems-level research to better understand its roles in health and psychiatric illness
- 20 Lauren Kwan, MD**
Polycystic ovarian syndrome (PCOS), anxiety, and depression: treatment considerations

Poster Session B

1:40-2:10pm

| Poster | Presenter |
|--------|--|
| 21 | Seri Lim, BA Agreement between Clinical Diagnosis, Informant-, and Self-rated Social Responsiveness Scale Measures in an Autism Specialty Clinic |
| 22 | Mehak Malhotra Examining Non-Suicidal Self-Injury Disclosure in Adolescents: A Qualitative Investigation |
| 23 | Rachel M. Marlowe, BA, M.Ed. Social Media Experiences, Coping Flexibility, and Depressive Symptoms in High-Risk Adolescents |
| 24 | Jenna Mayes, BA, MS Parents' Experiences in the Pediatric Emergency Department During their Child's Mental Health Emergency |
| 25 | Katherine D. McCarthy, BA Are Deficits in Executive Functioning Predictive of Higher Anxiety in Adolescents with ASD? |
| 26 | Jennifer M. Quinde Zlibut, PhD Exploring the Geometry Aware Resting State Neural Signature of Cognitive Empathy in Autism |
| 27 | Daniel K. Ragheb, AB What About the Parents? The Importance of Psychiatric Evaluation of Parents of Children with Congenital Heart Disease |
| 28 | Gabrielle E. Reimann, MS Associations of Gray Matter Volume with ADHD Subtypes |
| 29 | Ali Sloan, EdM, BS Belief Updating and Childhood Trauma |
| 30 | Joshua R. Smith, MD Alternative Psychopharmacologic Treatments for Pediatric Catatonia: A Retrospective Analysis |
| 31 | Zachary J. Williams, BS An Overlooked Mental Health Condition: First Estimates of Prevalence and Clinical Correlates of Misophonia in Cognitively-Able Autistic Adults |
| 32 | Ardelan Oray Longitudinal Analysis of Delusional Thought Content and Memory in the General Population |
| 33 | Haley Potts, MA Using Defense Attorneys' Characteristics to Predict Success of Competency Referrals |
| 34 | Vicky Wang, BS Management of Intractable Psychosis in a Patient with Hereditary Aceruloplasminemia-Associated Neurodegeneration: The Role of Electroconvulsive Therapy |

Poster Session B continued

| Poster | Presenter |
|--------|---|
| 35 | Heather B. Ward, MD A Disease-Informed, Network-Targeted Neuromodulation Intervention Affects Craving in Individuals with Schizophrenia and Nicotine Dependence |
| 36 | Michelle B. Weyhaupt, MD Diagnosis and Management of Perimenstrual Cycloid Motility Psychosis |
| 37 | Eric Zabriskie PhD A Case of Long Post Covid Psychosis: A Durable Psychotic Syndrome Emerging After Sars-Cov2 Infection |
| 38 | Michelle Diaz Bonilla, MA Neuropsychological Evaluations: The Psychometrists' Role |
| 39 | Reid Finlayson, MD Consequences of Benzodiazepine-Induced Neurological Dysfunction: A Survey |
| 40 | Nancy M. Gimbel, Ed.D., M.A.Ed. Integrating a Cognitive Behavioral Therapy for Chronic Pain Group into an Opioid Use Disorder Treatment Program: A Program Implementation Evaluation |
| 41 | Thao D. Le, PhD Bridging Recovery Initiative Despite Gaps in Entry (BRIDGE): Results from a Randomized Controlled Trial of Bridge Clinic vs. Usual Care for Patients with Opioid Use Disorder |
| 42 | David E. Marcovitz, MD The Bridging Recovery Initiative Despite Gaps in Entry (BRIDGE) Trial |

Oral Session 2

2:20pm

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|--|
| Stefanie Alexander, MD, PhD Implementation of a single-session acceptance and commitment therapy consultation service for medical inpatients |
| Joshua Corriveau, MD Soul-Warmers: Ancient Perspectives on the Program of Psychiatry |
| Julian Raffoul, MD, PhD Novel psychoactive substance use disorders |
| Katherin Sudol, MD Psychiatry and Reproductive Care in a Post-Roe World |



Executive Functioning and Social Symptoms of ASD

¹ Department of Psychiatry and Behavioral Sciences, VUMC

A growing body of research suggests there may be important differences in the clinical presentations of boys and girls with autism spectrum disorder. One factor that has been proposed to contribute to the social and behavioral characteristics observed in ASD is executive functioning. The present study explored associations among sex, specific executive functions, and social symptoms of autism within a hierarchical regression framework. Cognitive, behavioral, and emotion regulation challenges significantly predicted many social symptoms of autism. After controlling for executive dysfunction, sex significantly predicted social communication challenges, but not other social symptoms of autism. The relationship between executive functioning impairments, sex, and autism symptoms is complex and warrants further study.

Christina Burroughs, M.Ed., PhD Candidate
Graduate Student

Additional Authors: Muscatello, Rachael; Corbett, Blythe

Funding: None

Keywords: autism; executive functioning; sex differences; neuro-developmental disorder

Using Electronic Health Records to Characterize the Interaction Between Sexual Assault and Genetic Risk in Schizophrenia

¹ Vanderbilt University Medical Scientist Training Program, Vanderbilt Genetics Institute

Epidemiological studies have established sexual assault (SA) as an important non-genetic risk factor for schizophrenia. Schizophrenia is highly heritable with a significant polygenic contribution; however, few studies have examined the joint impact of SA and genetic predisposition on schizophrenia risk. Here, we test the interaction between schizophrenia polygenic risk score (PRS) and SA in a study of 77,566 genotyped patients with linked electronic health records from the VUMC biobank (BioVU). SA disclosures were identified using a validated keyword-based algorithm applied to deidentified clinical notes. Analyses were conducted separately in individuals of European (N=65,261) and African (N=12,305) ancestry. European-ancestry analysis demonstrated a significant gene-environment interaction effect on schizophrenia diagnosis ($p < 0.05$) with a greater association between schizophrenia PRS and diagnosis in individuals without disclosures of SA (OR=1.93, 95% CI=1.65, 2.26) compared with survivors of SA (OR=1.21, 95% CI=0.87, 1.69). SA was associated with increased odds of schizophrenia in the African-ancestry cohort (OR=49.9, 95% CI=35.5-70.1), but no significant interaction effect was observed in this group. This work suggests that schizophrenia PRS may be a greater risk factor in the absence of traumatic environmental exposures such as SA. Further work is needed to elucidate the joint contributions of polygenic risk and SA across additional ascertainment settings and ancestral groups.

I would like to thank Dr. Lea Davis and members of the Davis lab for their support. Research reported in this presentation was supported by NIGMS (T32GM007347) and NIMH (F30MH132165).

Allison Lake, BSc
MSTP Student

Additional Authors: Davis, LK

Funding: NIMH grant F30MH132165, NIGMS grant T32GM007347

Keywords: schizophrenia, gene by environment interactions, human genetics, sexual trauma, biomedical informatics

Leveraging measurement-based care and electronic health records to identify predictors of symptom change in an adolescent partial hospitalization program

¹ Department of Psychiatry and Behavioral Sciences, VUMC

A growing number of adolescents are presenting to emergency departments in mental health crises (Plemmons, 2018), and often require higher-level psychiatric care, such as inpatient hospitalization or partial hospital program (PHP) care. Adolescents in PHPs are understudied yet at high risk for negative mental health outcomes in the short and long term (Wolff et al., 2018). The present study assesses anxiety and depression symptom reduction across PHP completion, and if clinical history or high-risk behaviors (e.g., self-injurious thoughts and behaviors) affect symptom change. The Vanderbilt Psychiatric Hospital Adolescent PHP implemented a measurement-based care system where patients complete measures of anxiety (GAD-7; Spitzer et al., 2006) and depression (PHQ-9; Kroenke et al., 2001) at intake, mid-treatment, and program discharge. Participants included adolescents (ages 13-18) enrolled in PHP between January 2019 and February 2023. Descriptive statistics for demographic and clinical variables based on documentation from electronic health records will be reported. Bivariate correlations will be conducted to understand relations among study variables. Multi-level modeling (MLM) will be utilized to assess anxiety and depression symptoms over treatment and potential moderators. These data present an important opportunity to address a gap in our understanding of symptom trajectories in this higher level of clinical care.

Rachael E. Siciliano, MS
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Funding: Vanderbilt Institute for Clinical and Translational Research (VICTR; VR67946).

Keywords: Depression, Anxiety, Suicidal thoughts and behaviors, Partial hospital

Acknowledgements. The Vanderbilt Psychiatry Hospital adolescent partial hospital program clinical team and project research team.

Interplay Between Childhood Trauma, Bodily Self-Disturbance, and Symptoms in Schizophrenia: A Network Analysis

¹ Department of Psychiatry and Behavioral Sciences, VUMC

Bodily-self disturbances have long been considered central to schizophrenia. Exposure to childhood trauma has been linked to the development of both psychosis and bodily-self disturbances, yet little work has examined the interplay between bodily-self disturbances, childhood trauma, and psychosis. This study uses network analysis to bridge this gap. Networks were constructed to examine relationships between schizophrenia symptoms (Positive and Negative Symptom Scale; PANSS), bodily self-disturbances (Perceptual Aberration Scale; PAS), and self-reported exposure to childhood trauma (Childhood Trauma Questionnaire, Short-Form; CTQ-SF) in 152 people with a schizophrenia-spectrum disorder (SZ). Shortest paths and bridge analyses were used to assess the role of bodily disturbances in linking childhood trauma to schizophrenia symptomatology. The estimated networks were stable. Bodily self-disturbances were found to be an important bridge between childhood trauma and positive and general symptoms of schizophrenia. Bodily self-disturbances were also found to lay on the shortest path between childhood trauma and positive symptoms, as well as childhood sexual abuse and general symptoms. Using a novel data-driven network approach, we showed that bodily self-disturbances play a key role in linking childhood trauma to positive and general symptoms of schizophrenia.

We acknowledge the numerous research assistants who have helped with data collection for this project. We also thank our participants for their time and dedication.

Lénie Torregrossa, PhD
Psychology Post Doctoral Candidate

Additional Authors: Liu J, Heckers S, Armstrong K, Sheffield J

Funding: R01 MH070560 (Heckers); K23 MH126313 (Sheffield); Donald and Charlotte Test Fund

Keywords: Network analysis, bodily self, trauma, symptoms

Conley AC

Examining the relationship between in vivo cholinergic integrity and cortical structure and function in healthy postmenopausal women using FEOBV PET

¹ Department of Psychiatry and Behavioral Sciences, VUMC

Compared to men, women have a higher risk of developing Alzheimer's disease (AD) in later life. A reason may be cholinergic decline associated with estradiol loss following menopause. Using the radiotracer [18F]-fluoroethoxybenzovesamicol radiotracer (FEOBV) we can look directly at cholinergic integrity. The present study looked at examining the relationship between cholinergic integrity as measured by FEOBV uptake, and basal forebrain volumes. Sixteen healthy postmenopausal women aged 50-70 years completed a FEOBV PET scan (6.5 mCi dose), in addition to other assessments. PET images were co-registered to the participant's MRI and referenced to the supraventricular white matter to control for partial volume effects. Analyses focused on associations between global and regional FEOBV uptake basal forebrain volumes. The results showed a weak association between global FEOBV uptake and basal forebrain volumes, however, FEOBV uptake in the lateral temporal lobes showed a stronger, positive association with the basal forebrain of both hemispheres. Greater FEOBV uptake in the lateral temporal lobes was associated with greater basal forebrain volume in both hemispheres in a small sample of cognitively unimpaired postmenopausal women. These results highlight the role of cholinergic compensation in postmenopausal women as a potential risk factor for future cognitive decline.

Alexander C. Conley, PhD
Research Assistant Professor of Psychiatry and Behavioral Sciences

Additional Authors: Boyd BD, Begnoche JP, Castellano T, Rosenberg A, Bosko BJ, Dumas JA, Newhouse PA

Funding: NIA grant R01 AG066159; CTSA award UL1TR000445, Vanderbilt TIPS grant

Keywords: cholinergic, post-menopause, PET, basal forebrain

Andrews PS

APOE4 genotype moderates the effect of benzodiazepine dose on short- and long-term outcomes of critical care illness

¹ Department of Psychiatry and Behavioral Sciences, VUMC

Delirium is a syndrome associated with worse long-term outcomes after ICU discharge, including cognitive impairment and accelerated cognitive decline. Risk factors for post-ICU cognitive impairment overlap with risk factors for Alzheimer's disease. Apolipoprotein E allele (APOE4) is the major genetic risk factor for late onset Alzheimer's disease and is similarly associated with worsening delirium. Benzodiazepine use in the ICU increases the risk for delirium and is associated with an increased risk of cognitive decline and Alzheimer's disease. We examined whether APOE4 genotype and benzodiazepine exposure in the ICU had additive or synergistic effects contributing to poor outcomes. We examined their influence on brain dysfunction during the ICU stay and on memory and processing speed 12 months after discharge. Benzodiazepines have the greatest negative effect in APOE4 negative participants. In contrast, benzodiazepine use appears to have less of an effect on APOE4 positive patients who were already at risk for poorer outcomes based on their genotype.

Patricia S. Andrews, MD
Assistant Professor of Psychiatry and Behavioral Sciences

Additional Authors: Patel M, Thompson J, Raman R, Stollings J, Kiehl A, Pandharipande P, Jackson JC, Taylor WD, Ely EW, Wilson JE

Funding: National Institutes of Health and others; BRAIN-ICU ClinicalTrials.gov NCT00392795.

Keywords: delirium, cognitive impairment, dementia, APOE4 genotype, benzodiazepines

Szymkowicz SM

Cognitive Training Paired with Bifrontal tDCS Decreases Depressive Symptoms in a Non-Clinical Sample of Older Adults: Preliminary Evidence

¹ Department of Psychiatry and Behavioral Sciences, VUMC

Subthreshold depressive (subD) symptoms are associated with negative outcomes in older adults. Shared neurocircuitry influences cognition and mood, so an intervention that targets specific cognitive processes may not only help cognitive performance, but even mild mood symptoms. In depressed adults, transcranial direct current stimulation (tDCS) applied to the frontal lobe has antidepressant properties and pairing tDCS with cognitive training (CT) results in additional benefit due to enhanced frontal activity. However, these studies have primarily enrolled depressed adults under age 65 years and less is known about whether this intervention combination affects subD symptoms in older adults. Secondary analyses of a 2-week pilot trial combining CT with tDCS identified 15 participants (7 active, 8 sham) with subD symptoms. CT via BrainHQ was administered for 40-min daily, with the first 20-min paired with active or sham tDCS. Results indicated that active tDCS paired with CT was associated with reduced depressive symptoms (active vs. sham: unadjusted - 2.7 vs. 1.4 points; covariate adjusted - 3.7 vs. 0.5 points). While preliminary, combining bifrontal tDCS with CT may improve subD symptoms in older adults via targeting prefrontal neurocircuitry and promoting neuroplasticity, which may prevent or reduce negative outcomes in this at-risk group of older adults.

Sarah M. Szymkowicz, PhD
Research Assistant Professor of Psychiatry and Behavioral Sciences

Additional Authors: Taylor WD, Woods AJ**Funding:** NIA/NIH grants (K01AG050707 and R01AG054077) to AJW**Keywords:** Depression, older adults, tDCS, cognitive training, intervention

Akavan S

Evaluating Facial Sensitivity Discrimination in Individuals with Autism: A Signal Detection Theory Approach

¹ Department of Psychiatry and Behavioral Sciences, VUMC

Facial sensitivity discrimination plays a critical role in social interactions, as it enables the perception and interpretation of facial expressions, emotional cues, and social cues. The present study employs a Signal Detection Theory (SDT) framework to determine if sensory thresholds in the face differ across autistic and non-autistic individuals. Sixteen autistic and non-autistic participants (6 autism) completed a 2-point discrimination task and were tested on their ability to discern the difference between 1 and 2 points across three facial sites. Sensitivity (d') and response bias (c) indices were computed to test for group differences. These measures allow for a comprehensive assessment of a participant's discriminative ability, and decision-making tendencies. Preliminary findings suggest that on average, autistic individuals' 2-point discrimination thresholds or response bias scores (c) do not differ from non-autistic thresholds and response bias scores ($\delta = -0.183, p=0.57$; $\delta = 0.2, p=0.49$). Autistic participants did significantly differ in their sensitivity scores (d' ; $\delta = 0.567, p=0.037$) suggesting that discriminatory sensitivity is lower in autism. These findings contribute to our knowledge of how autistic individuals perceive and discriminate facial cues, thus enhancing our understanding of social-sensory perception in this population.

Sheila Akavan, MA
Medicine Health and Society

Additional Authors: Cascio CJ; Quinde-Zlibut J; Convery C**Funding:** R01 MH102272**Keywords:** Facial Sensitivity Discrimination in Individuals with ASD

Archer C

Brain volume associations with irritability symptoms in children

¹ Vanderbilt University Department of Psychology

Irritability, or an increased proneness to frustration and anger, is among the most common reasons that youth are brought in for psychiatric care. However, few studies have examined the pathophysiology of irritability, including potential neurostructural risk factors. The purpose of the current study was to examine associations between regional gray matter volumes (GMV) and irritability in a large sample of children. Participants included 9- to 10-year-old children (N = 9,755) from the Adolescent Brain Cognitive Development (ABCD) Study. Using a latent measure of irritability, we related irritability to 68 cortical and 19 subcortical gray matter volume regions using structural equation modeling. Irritability was associated with smaller brain volumes in a number of frontal, temporal, and parietal regions (p-values $\leq .05$). Out of the regions examined, irritability was inversely associated with GMV in 10 cortical regions, but no subcortical regions. There is a lack of research examining the neurostructural correlates of irritability in youth. We demonstrate inverse associations in regions implicated in impulse control, emotion regulation, and recognition of emotional expressions. These findings support theories positing socioemotional deficits as a key feature of irritability and demonstrate that these neurostructural differences are apparent at an early age.

Camille Archer, BA
Graduate Student

Additional Authors: Jeong HJ, Reimann GE, Durham EL, Moore TM, Milewski A, & Kaczkurkin AN
Funding: NIH grants: R01MH117014, R00MH117274, and T32-MH18921, NARSAD Young Investigator Award, Sloan Research Fellowship, Lifespan Brain Institute of the University of Pennsylvania and the Children's Hospital of Philadelphia
Keywords: irritability, youth, risk, neuroscience, brain structure

Arumalla ER

Contrasting Pain Responsivity through Spontaneous Facial Expression in Autistic and Neurotypical Individuals

¹ Department of Psychiatry and Behavioral Sciences, VUMC

This study aimed to assess the link between pain responsivity in individuals with and without autism. Following recent literature outlining tactile hypersensitivity in autism and increased neuronal response to painful stimuli, we hypothesized that autistic individuals would show increased facial response to painful stimuli compared to individuals without autism. 43 adults (autism, n = 24; neurotypical, n = 19) were exposed to alternating warm (42°C) and hot (46°C) thermal stimuli (6, 21-second trials at each temperature, 30 second inter-trial-interval). Overall facial engagement and recruitment of pain-correlated action units (AUs) (AU 4—brow furrow, 6—cheek raise, 7—lid tighten, 25—mouth open) were measured as time percent and count frames above threshold with the Facial Action Coding System (FACS)-based program iMotions, using Affectiva's AFFDEX emotion recognition algorithm. A linear mixed effects regression indicated trends for increased cheek raise (AU6) in autism, and decreased mouth opening (AU25) (p=.08 and .07, respectively). These results suggest differential facial response to painful heat in autistic individuals. Larger studies are required to investigate interactions between diagnosis and type or degree of pain on facial expression in autism and to translate findings to improve pain management in autistic individuals.

Eshani R. Arumalla
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Additional Authors: Failla MD, Quinde-Zlibut J, Cascio CJ
Funding: NIH R01MH102272, Autism Science Foundation
Keywords: Autism Spectrum Disorder, Pain Responsivity, Spontaneous Facial Expression Production, Action Unit Analysis, Nonverbal Communication

Baldwin I

A Case of Hyperactive Catatonia in a Patient with SYNGAP-1 Mutation

¹ Department of Psychiatry and Behavioral Sciences, VUMC

Hyperactive catatonia is often unrecognized in pediatric patients due to its heterogeneity, though it is often seen in children with neurodevelopmental disabilities, especially autism spectrum disorders. An excitatory/inhibitory imbalance in cortical neurocircuitry has been theorized to underlie this association. The SYNGAP-1 gene encodes a protein associated with NMDA receptors on excitatory neurons. Mutations in this gene result in a variable phenotype, often including intellectual disability, epilepsy, and autism. Self-injurious behaviors and aggression are commonly part of the behavioral phenotype and have significant safety and quality-of-life implications for patients. As emerging evidence implicates hyperactive catatonia in more cases of self-injury and aggression in autism spectrum disorders than previously thought, it is possible this association exists in SYNGAP-1 patients as well. In fact, evidence from animal studies suggests SYNGAP-1 mutations may result in excitatory/inhibitory imbalance. This case of an adolescent with a history of SYNGAP-1 mutation and ASD with hyperactive catatonia provides an exemplar of the connection between this mutation, underlying neuropathology including possible excitatory/inhibitory imbalance, and catatonia. Discussion of the patient's presenting symptoms and treatment course provides important learning points for recognition and effective management for clinicians. Recent evidence regarding the connections between excitatory/inhibitory imbalance, SYNGAP-1 mutations, and catatonia are discussed.

Isaac Baldwin, MD
PGY2

Additional Authors: Smith JR**Funding:** None**Keywords:** Autism, catatonia, genetic disorders, neurodevelopmental disorders, psychopharmacology

Bonner HR

Social camouflaging in autistic adolescents: Demographic and clinical correlates

¹ Vanderbilt University Department of Psychology and Human Development

In autism, social camouflaging is a compensatory behavior used to suppress autistic traits in social situations and associated with internalizing symptoms. Research on youth self-report of camouflaging and internalizing symptoms is limited. Therefore, the present study examined self-reported social camouflaging in autistic adolescents and relationships with social processes (i.e., fear of negative evaluation, social connectedness) and clinical correlates (e.g., social anxiety). The sample included 65 autistic adolescents (11-17 years old) who were presented for psychological care at the Psychiatry Autism Research Team (PART) Clinic. At intake, adolescents completed self-reports of camouflaging (Comprehensive Autistic Trait Inventory; CATI), fear of negative evaluation (Brief Fear of Negative Evaluation; BFNE), social connectedness (Social Connectedness Scale; SCS), and internalizing symptoms (Revised Children's Anxiety and Depression Scale; RCADS). We hypothesized that social camouflaging would be associated with certain social processes and higher internalizing symptoms, particularly social anxiety. Results show significant, positive associations between social camouflaging and social processes (i.e., brief fear of negative evaluation, social anxiety) and internalizing symptoms in this sample. Importantly, autistic traits were the only significant predictor of social camouflaging. Findings can be used to advance our understanding of social camouflaging in autistic youth and enhance risk stratification for internalizing symptoms.

Halle R. Bonner, BA
Graduate Student, Psychology and Human Development

Additional Authors: Schwartzman, JM**Funding:** None**Keywords:** Autism, Social Camouflaging, Social Anxiety, Adolescents

Calvosa RE

Relationship Between Parental Stress, Child Stress, and Child Anxiety in Adolescents with Autism Spectrum Disorder

¹ Department of Psychiatry and Behavioral Sciences, VUMC

Parental stress is higher in parents of children with Autism Spectrum Disorder (ASD) than parents of typically developing children. Parental stress correlates with negative outcomes in children including anxiety. Previous research demonstrates that anxiety is common in autistic adults. This project investigated how parental stress and child stress predict parent-reported child anxiety. The study included 130 parent-child dyads with children aged 10-16. Parental stress was measured using the Parental Stress Index- Short. Child anxiety was measured using the Child Behavior Checklist, and child-reported stress was measured using the Cohen Perceived Stress Scale. A multiple regression showed that parental stress and child stress are significant predictors of child anxiety ($F(2, 97)=10.23, p<0.001, R^2=.17$). Parental stress was a significant predictor of anxiety ($p<0.001$), while child stress was not a significant predictor of anxiety ($p=.203$). Therefore, although parent stress may play a role in interpretation of anxiety the relationship between stress and anxiety may not be as clear in the child. These results emphasize the importance of examining multi-informant reports. Furthermore, the results highlight the distinction between stress and anxiety as separate constructs.

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Funding: Grant MH111599

Keywords: Autism, Parent, Child, Stress, Anxiety

Dong M

Exploring Parent Outcomes During Iterative Pilot Testing of a Text-Messaging Intervention for Parents After Their Child's Psychiatric Emergency

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Emergency department (ED) visits for youth mental health (MH) problems have increased the past two decades but outpatient follow-up remains low. Parent involvement is essential in most evidence-based interventions for youth MH. Prior mobile health (mHealth) interventions have successfully targeted youth MH in the ED. The Intervention for Parent Education after Care in the ED (iPEACE) is a novel mHealth intervention for parents, teaching MH literacy, self-efficacy, emotion-regulation, and tools for child-safety. In this pilot, we examined parent MH, the child's MH resource utilization, parent engagement, and feedback after completion. We enrolled N=8 parents of children (ages 11-17) admitted to Vanderbilt Children's Hospital ED for a psychiatric emergency and were discharged. Parents enrolled in iPEACE, which delivered 3-4 SMS texts per week for 1 month. Parents completed surveys and semi-structured interviews on their MH, their child's MH resource utilization, and their iPEACE engagement. Parents' MH did not appear to change during iPEACE; more specific measures of stress related to their child's MH may reveal more in future iterations. Parents engaged in iPEACE and want such services offered for longer periods of time. Overall, the pilot provides valuable data to guide improvements for the iterative development of iPEACE.

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Funding: Klingenstein Third Generation Foundation Access to Care grant (PI: Bettis)

Keywords: Adolescent psychiatry, Mobile health, Emergency, Pilot, resource utilization

Durhan L

Associations between Dimensions of Internalizing Symptoms and Brain Volume in Youth

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Internalizing psychopathology often has its onset in youth and is characterized by substantial comorbidity and heterogeneity. As compared to diagnostic classification, data-driven hierarchical modeling better captures the continuous and dimensional nature of internalizing symptoms. Relating such models to neural measures in youth can advance our understanding of neurobiological mechanisms underlying internalizing problems during development. The current project utilized a large sample (N = 11,876) of children from the Adolescent Brain Cognitive Development (ABCD) Study. Symptoms were assessed with the Child Behavior Checklist (CBCL) and brain volume with 3T magnetic resonance imaging. Higher-order modeling was used to identify general and specific factors of internalizing psychopathology. Structural equation modeling was implemented to examine associations between the factors and brain volume. Higher-order modeling characterized a general internalizing factor in addition to three lower order factors reflecting fear, distress, and withdrawn symptoms. Results revealed nearly global inverse associations between brain volume and general internalizing symptoms. The withdrawn and distress factors also demonstrated inverse associations with multiple regional volumes while the fear factor demonstrated positive associations with multiple regional volumes. This study is among the first to uncover the data-driven hierarchical structure of internalizing symptoms in youth and to reveal associated neurostructural differences.

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Funding: NIH grants: R01MH117014, R00MH117274, T32-MH18921, NARSAD Young Investigator Award, Sloan Research Fellowship, Lifespan Brain Institute, Univ. of Pennsylvania & Children's Hospital of Philadelphia

Keywords: internalizing psychopathology, neurodevelopment, brain structure, hierarchical modeling, magnetic resonance imaging

Jeong HJ

The Impact of Environmental Stressors on Network Topology

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Functional networks are collections of brain regions that interact to respond to incoming cognitive demands and are shaped by environmental stressors in childhood, a sensitive period marked by high brain plasticity. However, no studies have used hierarchical modeling to explore the effects of environmental stress on functional network topology in youth. The current study investigated the association between environmental stressors and functional networks using over 4,000 children aged 9-10 years from the Adolescent Brain Cognitive Development (ABCD) Study. Bifactor modeling identified a general factor of environmental stress that models the covariance among various stressors. Graph theory quantified the efficiency of functional networks at rest and during task performance. The general environmental stress factor was associated with lower modularity, indicating a tendency toward less local configuration, and reduced efficiency. The general environmental stress factor was also associated with poorer behavioral performance across tasks. Less modularity and efficiency suggest that a wide range of stressors in the child's environment could potentially lead to less refinement of brain network topology. The current study highlights the importance of considering diverse aspects of environmental stress to understand their effect on brain development.

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Funding: NIH grants: R01MH117014, R00MH117274, T32-MH18921, NARSAD Young Investigator Award, Sloan Research Fellowship, Lifespan Brain Institute, Univ. of Pennsylvania & Children's Hospital of Philadelphia

Keywords: children, environmental stress, brain development, functional networks, hierarchical modeling

Lesko JJ

A Case of Pediatric Catatonia in the Emergency Department: Age-Based Dosing Recommendations

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Catatonia is not uncommonly found in the pediatric population and is a major cause of morbidity and mortality. Prompt recognition and treatment is essential to improving outcomes. However, the ideal dose for lorazepam challenge test in the pediatric population is unclear. We describe here a 9-year-old female with history of ADHD, precocious puberty, epilepsy, PNES, sensory processing disorder, and catatonia who presented to the emergency room with worsening agitation, echolalia, verbigeration, perseveration, urinary incontinence, and refusal to eat or drink. She had an initial Bush-Francis Catatonia Rating Scale (BFCRS) of 17 and was diagnosed with catatonia. She was administered 0.5 mg lorazepam IV with prompt improvement in her symptoms and decrease in BFCRS to 5. She was admitted to the child inpatient unit and continued on scheduled lorazepam 0.5 mg every 8 hours and eventually transitioned to oral clonazepam with resolution of catatonia. Our recommendation for pediatric lorazepam challenge dosing is 1 mg for children younger than 12 and 2 mg for older children. A lower dose of 0.5 mg was chosen for this patient due to concurrent home clonazepam prescription. This case illustrates the considerations for lorazepam challenge dosing in the initial diagnosis and treatment of catatonia in children.

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Additional Authors: Smith JR, Ward HB**Funding:** None**Keywords:** pediatric, catatonia, lorazepam, challenge, neurodevelopment

Adegoke TO

A Case of Treatment-Refractory Depression Complicated by Traumatic Brain Injury and Seizure: Implications for Treatment

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We present the case of Mr. P, a 45-year-old male with treatment-resistant depression who was referred to our service for consideration of neuromodulation-based therapies. Mr. P sustained a severe traumatic brain injury (TBI) as a teenager, complicated by seizures and hearing loss. He subsequently developed chronic dysthymic symptoms which progressed to severe depression. During his index depressive episode, Mr. P received adequate trials of several antidepressant/augmenting agents from various classes over an 18-month period, coupled with psychotherapy but his depressive symptoms progressively worsened as evidenced by pervasive hopelessness and intrusive suicidal thoughts.

Employing the MGH Staging Method, Mr. P was classified as having Treatment-Resistant Depression (TRD) deeming him generally indicated for neuromodulation-based therapies including Transcranial Magnetic Stimulation (rTMS), Electroconvulsive Therapy (ECT), Neurosurgical procedures and Ketamine infusion; all of which have good evidence for efficacy in TRD.

In considering possible contraindications, acuity of depressive symptoms, and the relative safety profile of available interventions with his history of a TBI complicated by seizures, rTMS was deemed unsuitable. He was instead recommended for ECT resulting in remission of his depressive symptoms.

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Ali M

Relationship of sleep disorders to major psychiatric comorbidities: A retrospective analysis from a large county jail

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Sleep disorders in incarcerated populations are an unintended consequence of the prison environment and should be addressed to foster a stable environment for psychiatric patients. It has been demonstrated that incarcerated patients experience lower sleep quality compared to the general population. This results in negative affect, anxiety, and insomnia, as well as reduced sleep time overall. This needless sleep deprivation is due to early wake up times, noise, constant illumination, inadequate bedding, and medication restrictions. Given the impact of sleep on health, this study aims to assess the prevalence of sleep problems in incarcerated subjects with mental illnesses through retrospective analysis of medical intake forms. In a sample of 507 subjects randomly selected from a population of 1841 in a large county jail, 114 individuals reported sleep problems. Chi-square analysis revealed significant comorbidity with anxiety ($p=0.005$). Non-significant were major depressive disorder ($p=0.074$), unspecified mood disorder (0.276), and bipolar disorder ($p=0.502$). These findings suggest a link between sleep disorders and anxiety in the incarcerated, and more research is needed to elucidate other relationships and assess the impact.

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Funding: None

Keywords: anxiety, incarcerated population, sleep disorders

Cai AR

The Intersection of Art and Psychiatry in The Madhouse by Francisco Goya

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Hidden away and imprisoned within the thick stone walls of the mental asylum, a group of figures in varying stages of undress and distress cluster under a beam of sunlight that seeps through the iron bars. There is an uncomfortable, unsettling, and chaotic energy that exudes from this oil on panel painting, *The Madhouse*, by Francisco Goya. This painting remains a significant work of art that reflects not only the cultural and historical context in which it was created, but it also incorporates the artist's own perceptions and fears regarding mental illness.

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Keywords: Art, Psychiatry, Goya, Madhouse, Humanities

Cruz Bosch C

A Systematic Review of the Safety of rTMS for Schizophrenia

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Repetitive transcranial magnetic stimulation (rTMS) is a form of noninvasive brain stimulation that uses electromagnetic fields to change neuronal activity. rTMS has been studied since 1985 and is approved by the Food and Drug Administration as a treatment for major depressive disorder, obsessive-compulsive disorder, and smoking cessation. rTMS has been also used in schizophrenia as a treatment intervention and to investigate its underlying pathophysiology. Although decades of research studies and international consensus safety guidelines have supported the safety of rTMS in psychiatric populations, the risk profile of rTMS in schizophrenia has not been well-characterized. We therefore conducted a systematic review to establish the safety of rTMS in schizophrenia. We searched PubMed, Embase, PsycINFO, and Science Citation Index Expanded using search terms for schizophrenia and rTMS. Titles and abstracts were independently evaluated, data were independently extracted from each manuscript, and disagreements were resolved by a third reviewer. Characteristics of the study design, population, rTMS interventions, and side effects were collected and analyzed. We identified a total of 128 studies of rTMS in schizophrenia. We will present the prevalence of adverse effects of rTMS in schizophrenia. Our findings affirm the safety of rTMS in schizophrenia.

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Funding: None

Keywords: safety, repetitive transcranial magnetic stimulation (rTMS), schizophrenia, adverse events, seizure

Feola B

Brain and Physiological Stress Responses in Early Psychosis

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Stress is proposed to contribute to the onset and expression of psychosis. Yet, how people with psychosis differ in responses to stressors remains unclear, especially in early-stage psychosis. The current study examined whether brain or physiological stress responses differ in people with early-stage psychosis. 20 people with early psychosis and 20 controls completed a fMRI stress task that involved viewing stressful and neutral relaxing images. Additional assessments included physiological stress responses (cortisol, heart rate) and self-report of stress. Region of Interest (ROI) analyses were conducted for a prior stress network (amygdala, hippocampus, striatum, hypothalamus, prefrontal cortex). Linear mixed models compared differences in brain activation using group (psychosis/control), phase (baseline, provocation), and emotion (stress, neutral). During the stress task, significant group differences in brain activation were found for the hippocampus, amygdala, and prefrontal cortex (all $p < .05$). People with early psychosis displayed increased brain activation in these regions to neutral stimuli relative to controls but had intact responses to stressful stimuli. Our findings highlight the need to explore aberrant stress responses in psychotic disorders, especially in response to neutral or non-threatening contexts.

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Keywords: Psychosis, Stress, Neuroimaging, fMRI, Psychophysiology

Kittleson AR

The insula: Leveraging cellular and systems-level research to better understand its roles in health and psychiatric illness

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The insula has gained increasing attention in neuroscience and psychiatry due to its diverse functions and involvement in various pathological conditions. Here, we provide a comprehensive overview of the physiologic and pathologic roles of the insula, exploring its anatomical organization, connectivity, and functional activation. Beginning with neuroanatomical studies in post-mortem human brains, we summarize the cytoarchitecture of the insula in humans and non-human models and hypothesize how these cytoarchitectural subregions may influence brain function and behavior. We use preclinical studies in rodents as a foundation upon which systems-level neuroimaging studies of the insula in humans can be compared. Within these cellular and network analyses of the insula, we discuss the functional roles of the insula, including somatosensation, interoception, emotional processing, and social cognition. We close with a discussion of schizophrenia as one lens through which to investigate insular dysfunction. Finally, we outline future directions in insula research, emphasizing the need for further bridging of cellular architecture with complex phenotypic studies to understand this complex region. This review illuminates the current cellular and system-level research on the insula, underscoring its significance in understanding brain function and its potential for therapeutic interventions in psychotic disorders.

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Additional Authors: Sheffield JM**Funding:** None**Keywords:** insula, cytoarchitecture, neuroimaging, schizophrenia

Kwan LE

Polycystic ovarian syndrome (PCOS), anxiety, and depression: treatment considerations

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Polycystic ovarian syndrome (PCOS) is a disorder that affects between 6 and 10% of reproductive age women characterized by menstrual irregularity, androgen excess, polycystic ovaries, and metabolic issues. PCOS is also associated with an increased risk of mood and anxiety disorders of up to three times the odds of depressive symptoms and over five times the odds of anxiety symptoms. The mechanisms underlying the relationship between PCOS and depression and anxiety are not fully understood, but may be related to the increased prevalence of insulin resistance and associated chronic inflammation; hyperandrogenism; and the psychological stress associated with managing PCOS including accompanying acne, hirsutism, and obesity. Accordingly, in addition to the typical psychiatric management of depression and anxiety, studies have demonstrated weight loss, oral contraceptives, metformin, pioglitazone, myo-inositol supplementation, and ketogenic diets could also be helpful in treating anxiety and depression in patients with PCOS.

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Additional Authors: None**Funding:** None**Keywords:** PCOS, anxiety, depression, treatment

Lim SL

Agreement between Clinical Diagnosis, Informant-, and Self-rated Social Responsiveness Scale Measures in an Autism Specialty Clinic

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The prevalence of autism has risen in recent years, increasing the need for validated screening tools to aid diagnosis. The social responsiveness scale (SRS-2) screens for and assesses the severity of autistic traits with strong psychometric properties. However, little research is available regarding the difference between self- and informant-rated measures of the SRS-2. This study aims to assess the possible differences between these two measures. We hypothesized that in adults seeking a first-time diagnosis of autism, informant-rated measures would be of greater value in predicting a diagnosis of autism. A retrospective chart review from an autism specialty clinic was conducted to compare agreement and disagreement between self and informant SRS-2 reports and their differential ability to predict a clinical diagnosis of autism. Our sample consisted of 148 patients with both a self- and informant-rated SRS-2. Correlations between the self- and informant-rated SRS-2 scales were all statistically significant but showed poor consistency between self- and informant-rated scores. Seventy-two percent (N=75/104) of patients with a clinical diagnosis of autism had a corroborating impaired self- and/or informant-rated SRS-2 (T-score ≥ 66). Our findings suggest that individuals who screen positive for autism on either the informant- or self-rated SRS-2 should be clinically evaluated for autism.

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Malhotra M

Examining Non-Suicidal Self-Injury Disclosure in Adolescents: A Qualitative Investigation

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Non-suicidal self-injury (NSSI) among adolescents is highly prevalent and involves the deliberate and direct destruction of body tissue with no suicidal intent. Engagement in NSSI in adolescence predicts poor mental and physical health outcomes over development. Disclosure of NSSI is key to connecting adolescents to appropriate treatment. Disclosures to parents are particularly important in adolescence, given parents are typically gatekeepers to mental health treatment access. In this study, we examined adolescent-identified barriers to NSSI disclosure to parents. N = 1,495 adolescents completed a one-time survey assessing history and disclosure of self-injurious thoughts and behaviors and mental health treatment history. Results indicated that 79.5% (n=1134) of participants ever disclosed their NSSI to someone. Approximately 40% (n = 454) reported they never disclosed their NSSI to their parents, while most reported disclosing to a therapist (~75%) and nearly all disclosed NSSI to friends (~90%). Qualitative coding of adolescent open-ended responses identified barriers to NSSI disclosure to parents. The two most common barriers were fear of parents' emotional reactions to NSSI and adolescents' belief that parents would not understand their NSSI. These findings highlight the importance of a positive parent-child relationship to facilitate adolescent disclosure of NSSI.

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Marlowe RM

Social Media Experiences, Coping Flexibility, and Depressive Symptoms in High-Risk Adolescents

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Social media is large part of the adolescent experience and is associated with mental health (Ivie et al., 2020). Emotional responses after use have been linked to depression in teens (Nesi et al., 2021). Coping flexibility is also linked to lower depressive symptoms (Kato, 2015). The present study investigates these relationships in a high-risk adolescent sample. We hypothesized higher positive and negative affect after social media use would be associated with higher depressive symptoms and this relationship will be moderated by coping flexibility. Adolescent psychiatric inpatients (N=103; ages 12-17; Mage = 14.28; 75.7% female; 59.2% white; 11.7% Hispanic; 49.5% sexual minorities; 15.5% gender diverse) completed surveys upon admission, including the Patient Health Questionnaire 9 (PHQ-9; Spitzer et al., 2001), Self-Perceived Flexible Coping Scale (SFCS; Zimmer-Gembeck et al., 2018), and Emotional Responses to Social Media Experiences (ERSME) scale (Nesi et al., 2021). Depressive symptoms were positively correlated with negative ERSME ($r=.43$, $p<.01$) and coping rigidity ($r=.24$, $p<.05$) and negatively correlated with positive ERSME ($r=-.22$, $p<.01$), multiple coping strategy use ($r=-.49$, $p<.01$), and situational coping ($r=-.24$, $p<.05$). Multiple coping strategy use and negative ERSME ($B=.501$; $t=4.246$, $p<.001$) predicted depressive symptoms in regression analyses. Coping flexibility did not moderate this relationship.

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Keywords: adolescents, social media, depression, affect, coping

Mayes J

Parents' Experiences in the Pediatric Emergency Department During their Child's Mental Health Emergency

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Utilization of emergency departments (ED) for psychiatric emergencies in adolescents is on the rise (Plemmons et al., 2017). While there are adolescent focused ED interventions to reduce risk after ED discharge (Asarnow et al., 2011), no evidence-based interventions exist to support parents of children seeking psychiatric emergency care. The present study aims to examine parent experiences in the pediatric ED setting during their child's psychiatric emergency to inform the development of parent-focused ED interventions. We interviewed N=13 parents within 1-month of their child's psychiatric ED visit. Semi-structured qualitative interviews probed their experiences leading to their child's ED visit, during their ED admission, and after discharge from the hospital. Themes fell into three broad categories: (1) impact of ED admission on their child, (2) the nature of interactions with the ED staff/hospital system, and (3) parents' attitudes toward, emotions in response to, and understanding of their child's mental health. Themes highlight strengths and weaknesses of psychiatric ED care, how interventions can be improved and parents' resiliency. Findings can inform improvements in our pediatric ED setting that may benefit families seeking psychiatric support, and point toward the importance of providing parents with support in addition to support for the child in crisis.

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Funding: Klingenstein Foundation Third Generation Fellowship

Keywords: Parents, Qualitative, Adolescents, Interventions, Emergency Departments

McCarthy KD

Are Deficits in Executive Functioning Predictive of Higher Anxiety in Adolescents with ASD?

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The present study aims to discover if executive functioning is predictively associated with anxiety in adolescents with autism spectrum disorder (ASD). Impairment in executive functioning is a core characteristic of individuals with ASD. Additionally, anxiety is one of the most common comorbidities in adolescents with ASD. We examined a cohort of individuals aged 10-13 with a confirmed ASD diagnosis (N=140), using data from the Multidimensional Anxiety Scale for Children (MASC2) to measure parent-reported anxiety and the Behavior Rating Inventory of Executive Function (BRIEF-2) parent report to assess executive functioning. Three linear regression models were examined to see the effect of the three different executive functioning indexes: Behavior Regulation Index (BRI), The Emotional Regulation Index (ERI), and the Cognitive Regulation Index (CRI) on the MASC2 total score. A three-way ANOVA revealed that BRI, ERI, and CRI total scores were a significant predictor of MASC-2 total scores ($F(3,132) = 7.98, p < .001, R^2 = 0.15$). Individually, ERI total score had a significant positive correlation with MASC-2 total score ($\beta = .605, p < .001$), while BRI total score had a significant negative correlation with MASC-2 total score ($\beta = -.440, p = .008$). CRI was not found to be a significant predictor of the MASC-2 total score ($\beta = .211, p = .167$). These findings offer insight into what specific executive functioning skills are the biggest predictors of anxiety in adolescents with ASD.

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Keywords: Adolescence, Autism Spectrum Disorder, Anxiety, Executive Functioning

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Exploring the Geometry Aware Resting State Neural Signature of Cognitive Empathy in Autism

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Autism differences in behavioral indices of cognitive empathy like emotion recognition (ER) accuracy are consistently reproduced across studies. MRI studies typically interrogate empathy using performance-based tasks. Task-based functional connectivity captures state rather than trait capacities making it difficult to ascertain what findings are generalizable to everyday life and what is confined to the controlled nature of the lab setting. Resting-state functional connectivity (rs-FC) methods offer a task-independent alternative for capturing stable intrinsic networks of functional brain organization and allow for a more generalized characterization of brain function. Our matched sample included 37 ASD (27 males, ages 8-35) and 39 neurotypical controls (26 males, ages 8-34). Using a combination of rs-FC and a geometry-aware metric of similarity, the geodesic distance, we found that the connectivity among regions important for cognitive empathy is more similar for individuals within the same diagnostic group than between diagnostic groups ($F_p = 0.017, p = 0.024$). Our exploratory analysis for identifying neural correlates of ER in autism points to two potentially important pairwise relationships: connectivity between 1) the basolateral amygdala with the posterior temporoparietal junction and 2) the basolateral amygdala with the right inferior frontal gyrus.

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Keywords: Autism, Empathy, Social Cognition

Ragheb DK

What About the Parents? The Importance of Psychiatric Evaluation of Parents of Children with Congenital Heart Disease

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Congenital heart disease (CHD) occurs in about 40,000 neonates each year, according to the CDC. So too comes the reality of parents of neonates with CHD (PoCHD) having the responsibility of caring for a chronically sick child. Numerous studies have found that PoCHD have increasing psychological stressors. 30% of PoCHD have post traumatic stress symptoms, 25-50% have symptoms of depression or anxiety, and up to 80% have severe psychological distress. Numerous interventions can improve these symptoms, such as education of the parents and inclusion of a psychiatrist or psychologist on the care team. The psychological impact of having a child with congenital heart disease is most profound at time of diagnosis and time of cardiac surgery. Parents suggest these times as appropriate to offer mental health services. Despite the overwhelming evidence that PoCHD need immediate intervention, and often long-term treatment, we as a medical community have yet to act. We must develop a standardized approach to identifying parents at risk for mental health disorders and appropriately refer to psychiatric care. We propose the use of a modified version of the Impact of Events Scale to screen PoCHD and utilization of immediate referral to further resources, including to mental health professionals.

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Funding: None

Keywords: Trauma, Congenital Heart Disease, Parents, PTSD, Collaboration



Reimann G

Associations of Gray Matter Volume with ADHD Subtypes

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Attention-deficit/hyperactivity disorder (ADHD) is among the most common neurodevelopmental conditions. ADHD's core features of inattention and hyperactivity/impulsivity may have important structural distinctions. The present study sought to examine the neurostructural heterogeneity of ADHD's inattention and hyperactivity/impulsivity features. We analyzed over 10,000 9- to 10-year-old children from the Adolescent Brain Cognitive Development (ABCD) Study. We implemented a confirmatory factor analysis on item-level data from the Child Behavior Checklist to operationalize inattentive and hyperactive/impulsive features as two continuous factors of ADHD. Using structural equation modeling, we then examined these inattentive and hyperactive/impulsive factors' associations with the gray matter volumes of 68 cortical and 19 subcortical regions. The hyperactivity/impulsivity factor was inversely associated with gray matter volume in 25 out of 68 cortical regions. Further, hyperactivity/impulsivity symptoms were inversely associated with gray matter volume in 10 out of 19 subcortical regions. There were no significant associations between gray matter volume and the inattentive factor. The present study expands upon prior work by underscoring the neural specificity of hyperactive/impulsive features. These findings refine our understanding of the neural correlates of ADHD and demonstrate the importance of distinguishing between the inattentive and hyperactive/impulsive subtypes in research and clinical applications.

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Keywords: ADHD, inattention, hyperactivity, brain structure, volume



Sloan A

Belief Updating and Childhood Trauma

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Exposure to childhood trauma — a transdiagnostic risk factor for psychopathology — may impact one's beliefs about the world and how beliefs are updated. We examined relationships between volatility-related belief updating, cumulative childhood trauma exposure, and two trauma dimensions: deprivation and threat. Belief updating was measured in 93 individuals (45 patients with schizophrenia and 48 non-psychiatric controls) using a 3-option probabilistic reversal learning task. Computational parameters of belief updating—prior expectations of volatility (μ_3) and meta-volatility learning rate (ω_3)—were estimated. The Childhood Trauma Questionnaire was used to assess overall trauma, deprivation, and threat exposure. Relationships between belief updating and trauma were examined using partial Spearman correlations, controlling for age, sex, group, and cognitive ability. Cumulative trauma, threat, and deprivation scores were greater for patients than controls. In the whole group, both cumulative trauma and threat, but not deprivation, were significantly associated with stronger μ_3 (cumulative: $p=.02$; threat: $p=.01$) and reduced ω_3 (cumulative: $p=.01$; threat: $p=.006$). When examining groups separately, greater threat was significantly associated with stronger μ_3 in patients ($p=.02$) and reduced ω_3 in controls ($p=.04$). Exposure to childhood trauma — especially threat-related trauma — may be implicated in atypical belief updating, possibly contributing to elevated expectations that the environment is unpredictable.

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Keywords: Schizophrenia Spectrum Disorders, Computational Modeling, Childhood Trauma, Threat, Deprivation

Smith JR

Alternative Psychopharmacologic Treatments for Pediatric Catatonia: A Retrospective Analysis

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Treatment of pediatric catatonia is often limited due to restricted ECT legislation and/or lorazepam availability. This study aimed to explore alternative pharmacologic interventions. This retrospective analysis occurred over the course of two years and included patients from the Vanderbilt Children's Hospital, Psychiatric Hospital, and a pediatric catatonia specialty clinic. Among the 102 pediatric catatonia patients identified, 31 met study criteria. The patient demographics included 20 (65%) white, 6 (19%) Black, 4 (13%) Hispanic, and 1 (3%) Indian individuals. Most patients (58%) were insured by Medicaid. The mean age at catatonia diagnosis was 13.5 years. All patients achieved stabilization using clonazepam or diazepam, and additional medications were required for 68% of patients, including anti-epileptics, NMDA receptor antagonists, or aripiprazole/clozapine. Significant reductions were observed in catatonia severity scores: Bush Francis Catatonia Rating Scale ($t=11.2$, $p<0.001$), Kanner Catatonia Severity Scale ($t=4.6$, $p<0.001$), and the Kanner Catatonia Standard Examination ($t=7.8$, $p<0.001$). A blinded Clinical Global Impression-Improvement score was assigned by four authors retrospectively and indicated a high probability of improvement ($t.s.=43.2$, $p<0.001$). This study demonstrated the efficacy and safety of alternative pharmacologic interventions, including clonazepam, diazepam, valproic acid, NMDA receptor antagonists, and atypical antipsychotics, in treating pediatric catatonia. The findings provide valuable insights for expanding treatment options and improving outcomes.

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Funding: VUMC Psychiatry & Behavioral Sciences and NICHD Kennedy Center P50 Grant (1P50HD103537-01)

Keywords: Pediatric, Catatonia, Neurodevelopmental, Consult-Liaison Psychiatry

Williams ZJ

An Overlooked Mental Health Condition: First Estimates of Prevalence and Clinical Correlates of Misophonia in Cognitively-Able Autistic Adults

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Misophonia is a newly-described psychiatric disorder in which individuals have strong negative emotional responses (typically extreme irritation, anger, or disgust) in response to specific "trigger" sounds (e.g., chewing, tapping, and sniffing), resulting in significant distress, pathological avoidance behavior, and impairment in daily life. Despite increasing research interest in misophonia over the past decade, no studies have examined the prevalence of this condition in autistic adults, a population where decreased sound tolerance complaints are frequently observed clinically. In a cohort of 936 independent autistic adults recruited from SPARK Research match, we found a point prevalence of 35.5% for misophonia using the Duke-Vanderbilt Misophonia Screening Questionnaire, with 73.8% of those individuals endorsing "moderate" or "severe" misophonia-related impairment. The phenotypic features of misophonia, including common trigger sounds and emotional/behavioral responses to those trigger sounds, appeared similar to those reported in the general population. Misophonia status was associated with female sex, gender minority identity, tinnitus, and hyperacusis, as well as greater dimensional symptoms of anxiety, and depression. Moreover, after controlling for age, sex, gender identity, hyperacusis status, anxiety, and depression, misophonia status significantly predicted higher autistic traits ($d=0.315$), ADHD symptoms ($d=0.304$), anger ($d=0.298$), somatic symptoms ($d=0.305$), and reduced overall quality of life ($d=-0.131$).

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Additional Authors: Barrett DJ, Cascio CJ, Woynaroski TG**Funding:** NDCDCD grant F30-DC019510**Keywords:** Autism, Comorbidity, Misophonia, Epidemiology, Phenotype

Oray A

Longitudinal Analysis of Delusional Thought Content and Memory in the General Population

¹ Vanderbilt University

Delusional beliefs have been linked with memory deficits in the general population. These memory impairments are characterized by false memories with high confidence. The relationship between delusional ideation in the general population and memory deficits has not been examined longitudinally. In a sample acquired from the Nathan Kline Institute-Rockland Sample, 844 individuals completed the Peters et al. Delusion Inventory (PDI) and the Penn CNB Word Memory Test (PWMT). False positive memories and PDI scores were analyzed cross sectionally using a Pearson correlation ($p=0.04$) and were positively correlated. A sub-sample of 146 participants was used to assess the stability of PDI data over time, with the mean time between timepoints being 1.8 years. A linear mixed model found that PDI scores decreased significantly over time ($P<0.001$). The stability of false positives, high-confidence false positives, and true positives was also assessed, with none of these measures changing significantly over time ($p's>0.05$). Using a linear mixed model, the relationship between PDI and these memory measures changed significantly for false positives ($p=0.019$) and did not change significantly for high-confidence false positives and true positives ($p's>0.05$). Future steps include accounting for the floor effect with false positive memory to determine significant effects with more confidence.

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Potts H

Using Defense Attorneys' Characteristics to Predict Success of Competency Referrals

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Defendants undergoing competency assessment typically do so at the request of their defense attorneys, although little is known about how or why attorneys make these referrals. The current study explored if attorney characteristics predict "successful" competency referrals (i.e., referrals for defendants who are indeed incompetent). We expected better referrals from public defenders with more years of practice who attended higher ranked law schools. Attorney gender was an exploratory variable. Fifty-one evaluations were randomly selected from court-ordered referrals to the Vanderbilt Forensic Evaluation Team made between 2015-2019, stratified by year. Only 31% were opined competent (notably lower than in prior research). After controlling for psychotic disorders (a well-established predictor of incompetency [$p < .01$, $OR = 16.28$]), female attorneys (53% of our sample) were 10 times more likely to make successful referrals than male attorneys ($p = .04$). Other variables (years of licensure, law school ranking, and public defender status) were not significant. The final model was statistically significant and accounted for 42% of competency referral success ($\chi^2 [5] = 18.24$, $p < .01$, $R^2 = .42$). Future research will explore which characteristics underlie these gender differences with the potential for using this information to develop targeted attorney interventions.

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Additional Authors: Wood ME**Funding:** None**Keywords:** forensic psychology; forensic assessment; competency to proceed; attorney characteristics; gender differences

Wang V

Management of Intractable Psychosis in a Patient with Hereditary Aceruloplasminemia-Associated Neurodegeneration: The Role of Electroconvulsive Therapy

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Our patient is a 59-year-old female with a history of hereditary aceruloplasminemia (HA), a rare autosomal recessive disorder that often causes late-onset (6th decade) degenerative brain changes with neurologic and psychiatric sequelae. She was psychiatrically admitted on 02/02/2023 due to a 6-month history of progressively worsening paranoia and anxiety. Home medications were quetiapine, valproic acid, sertraline, mirtazapine, and deferiprone. Her MRI-brain showed "susceptibility artifacts" involving the basal ganglia, thalamus, and brainstem. Olanzapine was cautiously introduced, with no noticeable benefit (up-titration limited by increased rigidity). The patient started ECT on 03/07/2023, and the patient has been tolerating it well with no memory impairments. After 6 ECT treatments, a marked improvement was noticed in her psychotic symptoms (50% reduction of PANSS score), rigidity, and Parkinsonian gait. As of 05/01/2023, the patient has had 14 ECT treatments and will be spacing ECT out to every 2 weeks. Our case highlights the presentation of a patient with florid psychotic symptoms in the context of HA-associated Neurodegeneration with Brain Iron Accumulation (NBIA). We report the first case to our knowledge that demonstrates clear benefit from ECT in this patient population.

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Ward HB

A Disease-Informed, Network-Targeted Neuromodulation Intervention Affects Craving in Individuals with Schizophrenia and Nicotine Dependence

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Tobacco use is the top cause of preventable mortality in schizophrenia, leading to a 25-year decreased life expectancy. Current interventions for nicotine dependence in this population do not target schizophrenia-specific pathophysiology. We therefore sought to identify and test a neuromodulation intervention on a schizophrenia-specific circuit of nicotine dependence. This study consisted of 3 phases: Network Discovery, Network Validation, and Network-Targeted Intervention. In Network Discovery, we performed a multi-variate pattern analysis of whole connectome data, which identified the strongest ($p < .001$) correlate between functional connectivity and daily cigarette consumption was driven by individual variation in the topography of the Default Mode Network (DMN) in schizophrenia. In Network Validation, we observed that acute nicotine administration reverses DMN hyperconnectivity in schizophrenia in a dose-dependent relationship ($R = -0.50$; 95% CI -0.75 to -0.12 , $p < .05$). In Network-Targeted Intervention, we observed a treatment x time relationship ($p = .017$) where craving was significantly increased by intermittent theta burst stimulation. In summary, we identified a schizophrenia-specific network of nicotine dependence, validated the effect of acute nicotine administration on that network, and then applied a neuromodulation intervention on that network. This is the first evidence for a circuit-based intervention for substance use in schizophrenia that was empirically derived, unique to schizophrenia, and affected clinical outcomes.

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Funding: Sidney R. Baer, Jr. Foundation and Norman E. Zinberg Fellowship in Addiction Psychiatry Research (Harvard Medical School)

Keywords: schizophrenia, nicotine dependence, functional connectivity, neuromodulation, resting-state networks

Weyhaupt MB

Diagnosis and Management of Perimenstrual Cycloid Motility Psychosis

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Cycloid psychosis is characterized by acute-onset, cyclically recurring, non-affective episodes of psychosis with full remission of symptoms in between episodes. Motility psychosis is a subtype of cycloid psychosis in which patients also demonstrate sudden episodes of akinesia or hyperkinesia that resemble catatonia. In this report, we present a rare case of perimenstrual cycloid motility psychosis in a 23-year-old woman. Each month, in the three days before onset of menses, this patient would develop paranoia, ideas of reference, and akinesia episodes that dissipated rapidly within two days of menses. During admission, she was treated with estradiol-norethindrone contraception and as-needed lorazepam to relieve akinesia. Her symptoms resolved with the initiation of hormonal contraception. This case is significant due to the rarity of both motility psychosis and perimenstrual psychosis, much less the combination of these presentations. Additionally, women's mental health and the role of menstrual hormonal fluctuations in psychiatric symptoms have historically been poorly studied, labeled dispassionately as hysteria. This case, however, highlights the importance of this field and the potential for a thorough history and accurate diagnosis to improve patient outcomes and reduce undue medication burden.

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PGY2

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Keywords: Cycloid psychosis, Women's mental health, Reproductive psychiatry, Perimenstrual, Motility psychosis

Zabriskie E

A Case of Long Post Covid Psychosis: A Durable Psychotic Syndrome Emerging After Sars-Cov2 Infection

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Recent studies on patients with COVID-19 suggest an increased risk of neuropsychiatric sequelae during the post-infectious period, including psychotic symptoms. In the majority of these cases, the psychosis was diagnosed and treated shortly after the infectious period. We present a case that did not present to any provider for over 5 months, during which the patient suffered a durable, worsening psychosis, with catatonia.

A 62-year-old female with a Family History of Lupus, no past psychiatric history whatsoever, presented with 5 months of acute psychosis following COVID-19 infection. She developed paranoid and persecutory delusions, agitation and a conviction her appliances were broken, including her plumbing, with secondary bathroom and food refusal. This led to severe constipation and weight loss. FEP revealed a positive ANA, which ultimately resolved with patient's symptoms. She had a protracted course with medication refractory catatonia. Ultimately, she responded well to ECT.

COVID-19 can cause acute neuropsychiatric symptoms both during active infection and in the post-infectious period. In our case, the combination of family history of autoimmunity, psychosocial stressors, and COVID-19 infection may have had a role. We review the post-viral etiologies of psychosis including post-viral autoimmunity, which may have played a role in our case.

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PGY4

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Funding: None

Keywords: long-covid, psychosis, infection, delusions, hallucinations

Diaz Bonilla M

Neuropsychological Evaluations: The Psychometrists' Role

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Neuropsychological evaluations include a series of instruments that measure and describe cognitive functions and other aspects of socioemotional functioning, with psychometrists playing an essential role in this process. Psychometrists are licensed professionals who administer, score, and assist in interpreting neuropsychological measures, which ultimately guide diagnostic decisions and treatment plans. In the field of neuropsychology, professionals have developed a broad range of neurocognitive tests to gather valid and reliable data from diverse populations to understand neuropsychological profiles across the lifespan. Importantly, these specialized neurocognitive and behavioral tools guide case conceptualizations and therapeutic recommendations, often relying on input from psychometrists. Neurocognitive assessments can range from a brief and incidental approach to a more in-depth and detailed protocol, with psychometrists at the center of these critical processes. The current project provides an overview of a psychometrist's role in a neuropsychological evaluation and intends to create a comprehensive differentiation between the normative, psychometric approach versus a more individualized, qualitative evaluation. Considering the multifaceted nature of neuropsychological evaluations, it is imperative to recognize the importance of adjusting clinical practices to combine strong evaluative techniques from different approaches.

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Funding: None

Keywords: neuropsychological evaluation, psychometrist, cognitive functioning, socioemotional factors, child and adolescent

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Consequences of Benzodiazepine-Induced Neurological Dysfunction: A Survey

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We conducted an internet survey of 1,207 self-selected individual persons who experienced protracted symptoms which they ascribed to benzodiazepine use and/or discontinuation by posting the survey on 16 internet sites related to benzodiazepine use, wellbeing and mental health.

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Funding: Alliance for Benzodiazepine Best Practices

Keywords: benzodiazepines, benzodiazepine-induced neurological dysfunction, benzodiazepine taper, benzodiazepine withdrawal, neuroadaptation, neurotoxicity, persistent withdrawal, post-acute withdrawal, protracted withdrawal, withdrawal syndrome

Gimbel NM

Integrating a Cognitive Behavioral Therapy for Chronic Pain Group into an Opioid Use Disorder Treatment Program: A Program Implementation Evaluation

¹ Department of Psychiatry and Behavioral Sciences, VUMC

Untreated chronic pain substantially increases relapse risk in Opioid Use Disorder (OUD). The VUMC Bridge Clinic examined the uptake and feasibility of an integrative cognitive-behavioral therapy for chronic pain (CBT-CP) group for patients with OUD and co-occurring chronic pain. Between September 2022 and June 2023, three 10-week CBT-CP groups were piloted in person and via telemedicine. The implementation evaluation occurred simultaneously. Administrative data were collected and analyzed on group adoption, recruitment, referral uptake, attendance, and clinic resources used. Over three cohorts, 22 patients were referred, 20 enrolled, and 14 attended. Successful scheduling occurred primarily from individuals in long-term recovery. Group attendance increased over time and averaged 6 participants. Treatment completion ranged from 10-100%, with participants attending an average of 5 sessions. Resource utilization was low and included a psychology doctoral intern as group facilitator and the MyHealth platform for telemedicine sessions. Due to consistent group attendance and low resource utilization, the group will continue, led by trained clinical staff and future trainees. Key implementation elements included collaboration with social work, promotion efforts, and reducing barriers to entry through open scheduling. Adding pre/post measures to future iterations will allow assessment of progress and overall outcomes.

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Funding: None

Keywords: Chronic Pain, Opioid Use Disorder, Group Psychotherapy, Integrated Health, Interdisciplinary Care

Le TDV

Bridging Recovery Initiative Despite Gaps in Entry (BRIDGE): Results from a Randomized Controlled Trial of Bridge Clinic vs. Usual Care for Patients with Opioid Use Disorder

¹ Vanderbilt University School of Medicine

The BRIDGE Study assessed the impact of a co-located Bridge Clinic with wrap-around support on hospital length of stay (LOS) and post-discharge outcomes for patients with opioid use disorder (OUD) compared to usual care at Vanderbilt University Medical Center. This pragmatic, randomized trial enrolled adults with OUD seen by a hospital addiction consult service from November 25th, 2019 to September 28th, 2021. Participants were randomized to the Bridge Clinic (N=167) or usual care (N=168). The Bridge Clinic intervention included enhanced case management, warm hand-off, and a transition prescription of medication for OUD (MOUD) to a co-located, multidisciplinary outpatient team. Usual care involved referrals to community MOUD providers and a bridge prescription for MOUD. No significant difference in hospital LOS was observed between the groups, but Bridge Clinic increased hospital readmission and overall cost of post-discharge care in the system compared to usual care, with no significant effect on emergency department visits. Propensity score analysis showed the Bridge Clinic increased buprenorphine refills, improved linkage to MOUD providers, and reduced overdose rates. In conclusion, the Bridge Clinic intervention did not decrease hospital LOS but led to increased readmission rates and total cost of care compared to usual care, while demonstrating improved MOUD linkage, increased buprenorphine refills, and decreased overdose occurrences.

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Funding: VUMC Dept. of Psychiatry and Behavioral Sciences

Keywords: Addiction, Bridge Clinic, Opioid Use Disorder, Medications for Opioid Use Disorder (MOUD)

Marcovitz DE

The Bridging Recovery Initiative Despite Gaps in Entry (BRIDGE) Trial

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Aim: To determine whether referral to a co-located Bridge Clinic with wrap-around support before and after general hospital discharge can reduce hospital length of stay (LOS) for patients with opioid use disorder (OUD) compared with usual care.

Methods: The BRIDGE Study was a pragmatic, randomized clinical trial conducted from November 25th 2019 to September 28th, 2021 at a large academic medical center in the Southeast. Adults with OUD seen by a hospital addiction consult service were randomized to bridge clinic (167) or to usual care (168). The bridge clinic intervention consisted of enhanced case management during hospitalization with warm hand-off and transition prescription of medication for OUD (MOUD) to an overlapping provider team in the Bridge Clinic. The co-located, outpatient bridge clinic itself employed a multidisciplinary team that provides a transitional medical home. The usual care group received referrals to community MOUD providers and a bridge prescription for MOUD.

Results: Referral to Bridge Clinic did not reduce hospital LOS (bed-days) compared with usual care [adjusted OR (95% CI) 0.937 (0.641-1.368)]. Only 26% of patients randomized in the trial could be reached at 16 weeks following discharge to assess secondary outcomes. In secondary analyses, Bridge Clinic increased hospital readmission at our medical center [adjusted OR (95% CI) 2.11 (1.213-3.67)] and the related overall cost of post-discharge care in our system compared to usual care [adjusted OR (95% CI) 2.178 (1.462-3.246)]. Bridge Clinic involvement had no significant effect on ED visits to our system, recurrent self-reported opioid use, linkage to MOUD providers, buprenorphine refills, quality of life, overdose or death rates.

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Funding: Vanderbilt Learning Health System / VICTR

Keywords: Addiction, opioid use disorder, substance use disorder

Implementation of a single-session acceptance and commitment therapy consultation service for medical inpatients

¹ Department of Psychiatry and Behavioral Sciences, VUMC

Untreated mental health disorders can increase morbidity and mortality among medically ill inpatients. Acceptance and commitment therapy (ACT) focuses on developing psychological flexibility and has been shown to be effective in many psychiatric conditions. The goal of this talk is to describe the implementation of a single-session ACT protocol as an integrated intervention for CL service patients. A single-session ACT protocol was developed consisting of a focused interview to identify targets for therapy, introduction of ACT concepts, and establishing goals. Patients were referred directly from the psychiatric CL service, focusing on patients with anxiety disorders, major depressive disorder, and adjustment disorder. Assessment of the intervention was done through a brief interview following treatment to evaluate the helpfulness and applicability of the service, the experience of the patients, and to identify potential improvements. This protocol was successfully implemented as a part of the CL service with multiple candidate patients referred each week. Assessments suggest that patients find this intervention helpful and applicable to their experiences as medical inpatients. In conclusion, this protocol has been successfully developed and implemented as part of the CL service to increase access to mental health treatment.

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PGY4

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Funding: None

Keywords: autism; executive functioning; sex differences; neuro-developmental disorder

Soul-Warmers: Ancient Perspectives on the Program of Psychiatry

¹ Department of Psychiatry and Behavioral Sciences, VUMC

Contemporary psychiatry longs for a purely biological paradigm that will enable it to overcome its many limitations. This presentation draws on insights from ancient medicine and literature to argue against the possibility and desirability of such an achievement.

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PGY4

Additional Authors: None

Funding: None

Keywords: ancient Greeks, psychiatry, history, antipsychiatry, medical model

Novel psychoactive substance use disorders

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Novel psychoactive substances (NPS) are a broad category of synthetic compounds marketed for their ability to improve mood, cognition, and provide energy or stress relief. NPS include formulations of medications originally intended for therapeutic use, such as tianeptine or "ZaZa", an atypical tricyclic antidepressant and mu-opioid agonist used in some European, Asian, and Latin American countries for mood disorders, and phenibut or "pbut", a GABA-B agonist used in Russia and some post-Soviet states for alcohol withdrawal and anxiety-related conditions. In the U.S., these substances are predominantly unregulated, relatively unknown, and have substantial addictive properties, causing rapid physiologic dependence and severe withdrawal upon cessation. The misuse of NPS has increased in recent years due to widespread availability online and OTC due to clever marketing as supplements, thus bypassing FDA regulations. Most NPS do not show up on routine UDS, so patients must be asked about their use as they are seldom disclosed to clinicians. Of the available NPS, "ZaZa" and "pbut" are two that have become particularly concerning in recent years due to their growing popularity and potential to cause significant harm. This presentation will discuss cases that highlight key points about each including their proposed classification as substance use disorders.

The material presented is in collaboration with investigators from Vanderbilt University Medical Center (K. Kast, D. Marcovitz), Yale University School of Medicine (J. Weleff), and the Cleveland Clinic (A. Anand).

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PGY4

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Funding: None

Keywords: tianeptine, phenibut, addiction, supplements

Psychiatry and Reproductive Care in a Post-Roe World

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On June 24, 2022, the U.S. Supreme Court overturned the landmark 1973 Roe v. Wade decision that granted women the right to abortion. Psychiatrists will inevitably find themselves sitting across from patients whose mental health is affected by the reproductive choices available to them. Consequently, psychiatrists must be prepared to understand and address patients' reproductive care needs. We therefore conducted a Quality Improvement project preparing psychiatrists to work at the intersection of mental and reproductive healthcare. Residents, fellows, and teaching attendings (n=51) completed a survey assessing their comfort with managing clinical scenarios related to reproductive psychiatry. This was followed by an educational series of five lectures delivered by an interdisciplinary panel of speakers including physicians (representing Obstetrics and Gynecology and Psychiatry), a thanatologist, an attorney, a genetic counselor, and a social worker. The series was concluded by another survey re-assessing provider comfort with the same clinical scenarios. The initial survey identified knowledge gaps across multiple domains; analyses examining the utility of the lecture series are pending follow-up data collection. Our hope is that enriching the educational experience of psychiatric trainees and attendings through targeted lectures will better equip them to serve patients of reproductive age.

We thank Dr. Mack Goldberg, Dr. Nancy Byatt, Adrienne Kepner, Alissa Drescher, Ashley Townsend, Jill Slamon, Dr. Jonathan Smith, and Dr. Heather Ward for their contributions to this project.

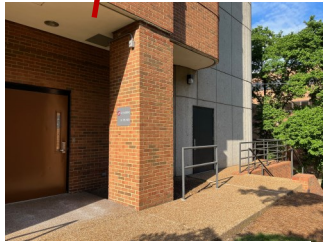
Katherin Sudol, MD
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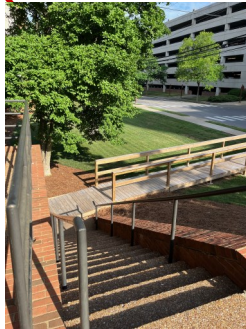
Funding: None

Keywords: reproductive psychiatry, pregnancy, abortion, quality improvement, education

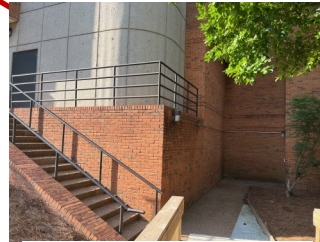
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