The MGH Center of Excellence for Psychosocial and Systemic Research

2023-2024 DMH ANNUAL REPORT





TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
OPERATIONS	11
CONSULTATION TO DMH	<u> 17</u>
PEER-LED PROJECTS	<u> 18</u>
CENTER-COMMUNITY COLLABORATIONS	31
PROMOTION OF EQUITY	<u>36</u>
RESEARCH PROJECTS	<u>38</u>
GRANTS	51
DISSEMINATION	<u>54</u>
APPENDIX A: Y6 STAFF AND INTERNS	<u>62</u>
APPENDIX B: ANTI-RACISM SEMINAR MATERIALS	<u>63</u>

EXECUTIVE SUMMARY

This year, we had many exciting opportunities and achieved significant milestones in advancing our mission to improve the health and wellbeing of individuals across Massachusetts. We are pleased to open by highlighting a number of our activities that have direct connections to work being done by DMH.

These include:

- 1. Our collaboration with DMH to expand capacity for early intervention services for first episode psychosis in the state;
- 2. Collaborative work with the DMH Office of Inpatient Management (OIM) to identify barriers and facilitators of best practices guidelines around using de-escalation strategies in the service of preventing aggressive incidents in our state hospital settings;
- 3. Work spearheaded by our peer consultants to improve peer integration in the Cambridge Health Alliance (CHA) system, provide support to peer supporters across the Commonwealth, and to contribute to and disseminate best practice guidelines for integrating peers across diverse systems of care;
- 4. Efforts led by our peer team to make the Southeast Recovery Learning Center (SERLC) more welcoming and relevant to the preferences of a more diverse membership; and
- 5. Collaborations with key community partners designed to improve the reach and impact of effective psychosocial interventions.

These accomplishments reflect our deep commitment to promoting health equity as a foundational value in all that we do.

HIGHLIGHTS OF THE PAST YEAR

COLLABORATION WITH DMH TO EXPAND CAPACITY FOR FIRST EPISODE PSYCHOSIS

As a direct result of the tremendous work and coalition building done by Massachusetts DMH, the landscape of care for early psychosis has changed dramatically in our state since the publication of the seminal NIMH-RAISE ETP randomized controlled trial of 2-years of NAVIGATE coordinated specialty care as compared to usual care. This study found that at the end of the 2-year treatment period, those allocated to the NAVIGATE coordinated specialty care model stayed in treatment longer, had better quality of life, had less severe psychotic and depressive symptoms, had more gains in working or going to school, were more likely to receive a prescription that conformed to treatment guidelines, and experienced fewer side effects than those allocated to usual care. Duration of untreated psychosis was an important moderator of initial treatment effectiveness, underscoring the urgency of early identification and intervention with first episode psychosis.¹ A five year follow up of participants in this trial showed durability of benefits of having received NAVIGATE insofar as those participants reported better quality of life, lower psychiatric symptom burden, and fewer days in the hospital over the follow up period.²

Leadership of the MGH COE (Drs. Mueser and Cather) were closely involved with the development and provision of the NAVIGATE intervention in the original study together with the larger NAVIGATE training team, have worked alongside DMH, MAPNET, and a number of community providers to provide training and consultation to these teams in the service of expanding capacity for evidence-based treatment of first episode and early psychosis. Over the past year, NAVIGATE training has been provided to staff of 10 services, including Boston Medical Center, Brockton Area Multi-services, Cambridge Health Alliance, Community Health Link, Corrigan Mental Health Center, PREP-West, Eliot Community Human Service, Edinburg Health and Human Services, Massachusetts General Hospital, and McLean-OnTrack. Longitudinal data are being routinely collected from these first episode programs and are used as part of measurement-based care processes as well as to advance learning in the field.

¹Kane JM, et al. (2016). Comprehensive versus usual community care for first-episode psychosis: 2-year outcomes from the NIMH RAISE early treatment program. *The American Journal of Psychiatry*, *173*(4), 362–372. https://doi.org/10.1176/appi.ajp.2015.15050632

²Robinson DG, et al. (2022). Outcomes during and after early intervention services for first-episode psychosis: Results over 5 years from the RAISE-ETP site-randomized trial. *Schizophrenia Bulletin, 48*(5), 1021-1031. <u>https://doi.org/10.1093/schbul/sbac053</u>

UPDATE ON PEER TEAM ACTIVITIES

Over the past year, our peer consultant team of eight individuals led by Dr. Anne Whitman, our senior peer consultant, has independently pursued several important lines of inquiry based on needs identified through peer-led listening groups conducted across Massachusetts.³

One primary focus has been on determining the processes by which peer support can be most successfully integrated into systems of care, such as the Community Behavioral Health Centers (CBHCs). The peer team has been consulting with the Malden and Cambridge CBHCs run by Cambridge Health Alliance (CHA) to support best practices in peer integration, which has included their creation of a weekly support group for peer supporters. The peer team meets weekly with senior management to highlight and address successes and challenges brought up in the peer support meetings. A month meeting has also been implemented for peer supporters at the state level. Preliminary findings from this initiative are detailed in the Peer Integration Project (PIP) report. *Click here to read the full PIP report*. In Fall 2024, we are looking forward to discussing these findings with our colleagues at the UMass Implementation Science and Practice Advances Research Center (iSPARC) to identify commonalities with their assessment of barriers and facilitators to peer integration within adult community clinical services teams and think together about how best to ensure that this work is used in real-world settings so that systems of care as well as patients and their families are benefitting from the power and promise of peer support.

Another key focus of the peer team's work in Y6 has been the continued implementation of improvement plans in the <u>Southeast Recovery Learning</u> <u>Center (SERLC)</u> to increase the representation of individuals from minoritized groups in the Recovery Community Centers (RCC). This work aims to ensure that programming is relevant and accessible to these groups.

Additionally, our peer team has also become integral to the core curriculum of educating the next generation of healthcare providers to be more equipped to deliver patient-centered care. They continue to play a central role in teaching medical students, psychiatry residents and fellows on topics such as recoveryoriented care, shared decision-making, and the advantages of involving family members in care.

³Delman J, Arntz D, Whitman A, Skiest H, Kritikos K, Alves P, Chambers V, Markley R, Martinez J, Piltch C, Whitney-Sarles S, London J, Shtasel D & Cather C. (2024). Using community-based participatory research to conduct a collaborative needs assessment of mental health service users: Identifying research questions and building academic-community trust. *Health Promotion Practice, 25*(5), 855–864. https://doi.org/10.1177/15248399231171144

UPDATE ON COLLABORATIONS WITH KEY COMMUNITY PARTNERS

DMH Child Behavioral Health Knowledge Center

Under the leadership of Dr. Margarita O'Neill-Arana, Ed.D., the DMH Child Behavioral Health Knowledge Center has been a central partner, advocate, and funder supporting dissemination of the Living In Families with Emotions (LIFE) program, a 10 session group-based intervention designed for adolescents that includes two Zoom-based sessions for parents and other caregivers that was developed by Dr. Daphne Holt, MD, PhD, Director of the MGH Resilience and Prevention Program and a key member of the MGH COE leadership. In one of the MGH COE's first research projects, LIFE was piloted in 11-14 year olds with subsyndromal psychiatric symptoms who were identified via screening done in a pediatric clinic in a predominantly Latinx community.⁴ This study found that LIFE was feasible to deliver in community settings and that it was associated with improved emotion regulation and emotion recognition, and reduced psychiatric symptoms, including depression, suicidal thoughts and behaviors, and psychotic experiences.

Over the past year, with the support of the DMH Child Behavioral Health Knowledge Center, three LIFE training workshops (two in-person, one virtual) were provided. These trainings reached 73 teachers, parent volunteers, peer coordinators, school counselors, and administrative leaders from 8 community partner organizations. Expanding and adapting the LIFE training workshop to be deliverable both in-person and over zoom allowed us to reach sites with limited access to Boston's hub of mental health services and expertise. We focused on providing trainings to community partners located in under-served and under-insured areas of the state, including those officially designated as Health Professional Shortage Areas (HPSAs) (e.g., Chelsea/Everett/Revere/Lawrence), and included schools and community organizations with a wide reach (e.g., the NAN Project, which serves 70+ schools; Massachusetts Family Resource Centers; the Boys and Girls Club, which has 50+ chapters). Following the training workshops, trainees perceived LIFE to be highly acceptable and appropriate for the needs of the populations they serve, and highly feasible to implement in their organization. Trainees also said that they felt equipped to better understand youth mental health needs and apply the LIFE skills. After the training workshop, trainees also reported significantly greater openness to using evidence-based practices compared to before.

Cory Johnson Post-Traumatic Healing Program

Our Center has enjoyed a wonderful partnership with the Cory Johnson Post-Traumatic Healing Program (CJP), a community-driven, anonymous, no-cost, drop-in program that was founded in 2014 offered through the Roxbury Presbyterian Church Social Impact

⁴Clauss JA, Bhiku K, Burke A, Pimentel-Diaz Y, DeTore NR, Zapetis S, Zvonar V, Kritikos K, Canenguez KM, Cather C & Holt DJ. Development of a transdiagnostic, resilience-focused intervention for at-risk adolescents. *J Ment Health*, *32*(3), 592–601. <u>https://doi.org/10.1080/09638237.2022.2140790</u>

Center. CJP's Can We Talk...[®] is a pioneering initiative that uses community-based, clinically supported, and spiritually informed approaches to foster healing in urban communities affected by trauma. As of January 2024, there were ten Can We Talk...[®] sites in Massachusetts, with two more under development.

Our collaboration with CJP involved co-creating a survey and implementing a longitudinal research methodology to better understand who is being served by the CJP program and assess the program's impact. Our findings suggest that CJP programming plays a unique and vital role in supporting a community who almost universally report having experienced numerous traumatic life events and racial discrimination. Despite indications that over one-third of respondents likely met DSM-V criteria for post- traumatic stress disorder, 22% identified CJP as providing their only source of support for trauma, grief, and loss. The data suggest CJP was beneficial and well-received by participants, underscoring its unique role in addressing mental health needs for a trauma-affected community. The report is now being used by CJP to attract new members and demonstrate the value of this program to funders. In the year ahead, our Center will work closely with CJP to support and advance its strategic priorities, particularly around strengthening connections with local behavioral health resources to better support the communities and neighborhoods served by CJP. <u>Click here to read the full CJP report.</u>

Bridge Over Troubled Waters

Since our Center's inception, we have maintained a close and productive collaboration with Bridge Over Troubled Waters (BOTW), a Boston-based organization serving youth experiencing homelessness. We are in the final phases of writing up two research projects with BOTW for publication. The first was a randomized controlled trial of a brief, five-session, manualized motivational enhancement intervention designed to address problematic substance use among youth experiencing homelessness. Our findings demonstrated the feasibility of delivering the intervention with high fidelity and high levels of participant satisfaction with the intervention. Notably, we observed higher attendance rates in the motivational enhancement group compared to usual care, and this group showed significant reductions in alcohol use from pre- to post- treatment. The second project involves a secondary analysis of data from BOTW clients who were enrolled in a rapid rehousing program. Our findings underscored the critical role of addressing substance use, building healthy relationships, and considering pregnancy-related implications for women to improve housing stability and outcomes for vulnerable youth. We look forward to continuing our collaboration with BOTW, using these research findings to inform future service development and expansion as well as to pursue further grant funding in partnership with BOTW.

COLLABORATION WITH THE DMH OFFICE OF INPATIENT MANAGEMENT

Over the past year, we also deeply valued the opportunity to collaborate with our colleagues at iSPARC, the UMass Center of Excellence that is also funded by DMH, to conduct listening groups with staff at DMH hospitals in order to learn more about factors that assist and challenge the management of aggression and violence on DMH inpatient units. MGH COE staff facilitated a total of twelve, 60-minute listening group sessions between January 18, 2024 and February 6, 2024 to learn about state hospital staff's experience of patient aggression. Each group consisted of 6 to 8 hospital staff participants. Five groups were conducted with Tewksbury Hospital staff, five with Solomon Carter Fuller Hospital staff, and two with Lemuel Shattuck Hospital staff. All but one group was conducted in person. The majority of listening groups were co-facilitated by two MGH COE doctoral-level staff and attended by a MGH COE clinical research coordinator who took detailed notes.

Themes for factors contributing to patient aggression were organized according to a priori categories of patient, staff, and environmental/ hospital/societal factors. Effective strategies were categorized as those related to prevention, treatment strategies, staff, leadership, and environmental factors. Ineffective strategies were categorized as those related to staff factors, hospital leadership, training and screening, hospital policies and external factors.

Our learnings from these listening groups led DMH to take action to address issues by forming a consultation group including inpatient medical staff, DMH leadership, and Dr. Oliver Freudenreich, a key member of our Center's leadership. Dr. Oliver Freudenreich will lend his expertise in the psychopharmacology of those with severe mental illness by providing consultation to DMH inpatient teams participating in the reduction of aggression pilot that the DMH OIM is sponsoring in response to the listening sessions we facilitated earlier this year. In the following sections of this Executive Summary, we focus on other key areas of work done by the MGH COE over the past year, including:

- An update on training the next generation of psychologists
- An overview of our annual conference produced in collaboration with iSPARC and DMH
- A summary of our dissemination efforts and grants over the past year
- A list of awards received by our faculty and staff

UPDATE ON JUNIOR FACULTY AND PSYCHOLOGY TRAINEE ACTIVITIES

Our junior faculty and psychology fellow are engaged in a range of innovative projects that are detailed in the report. We would like to highlight two projects that stand out for their potential impact on mental health care in Massachusetts. These initiatives are in line with broader statewide efforts to enhance coordinated specialty care for psychosis and to reduce criminal legal involvement of individuals with serious mental illness.

Dr. Cheryl Foo is leading a project focused on the network of first-episode psychosis programs across Massachusetts, many of which receive DMH support. Her research investigates program characteristics that affect patient retention and family engagement in team-based care, and explores strategies programs use to engage patient and family engagement in care. This work has the potential to influence program practices and inform training to improve implementation of coordinated specialty care for early psychosis.

Dr. Faith Scanlon is collaborating with Worcester Recovery Center and Hospital (WRCH) to provide Changing Lives Changing Outcomes-9 (CLCO-9), a manualized, time-limited intervention designed to improve mental health and lower recidivism among individuals with serious mental illness who also have criminal legal involvement. Training in this intervention will be provided to UMass psychology interns and interested staff in Fall 2024 and once IRB approval is obtained, this intervention will be offered on the WRCH units. This project holds promise for improving both clinical and functional outcomes for a highly vulnerable population.

ADVANCING KNOWLEDGE THROUGH RESEARCH

We were delighted to host the annual joint research conference for the MGH and UMass Centers of Excellence this past year where we had the opportunity to highlight the groundbreaking work of our colleague, Dr. Randi Schuster, Director of School-Based Research and Program Development, MGH Center for Addiction Medicine, focused on the prevention of mental health and substance use disorders. One example of this is Dr. Schuster's development and implementation of <u>iDECIDE</u>, a low-touch, targeted (Tier 2) intervention for students caught violating school substance use policy. Dr. Schuster's team has trained over 1000 facilitators in Massachusetts, and iDECIDE is currently disseminated in over 400 middle and high schools across the Commonwealth.

We were also pleased to have Dr. Eden Evins, Founding Director of the MGH Center for Addiction Medicine and a member of our Center's senior leadership, speak at our annual conference about the empirical argument against separating behavioral health and substance use disorders in psychiatric care and research. Dr. Evins and colleagues also outlined the potential harms of vaped nicotine among adolescents, which include the progression to use of combustible tobacco, as well as the neurobiological priming effects of nicotine on the developing brain that may accelerate addiction to other substances.⁵ These findings underscore that screening for and preventing the progression of nicotine use disorders may be an important strategy for preventing other substance use disorders among adolescents. Over the past year, Drs. Evins and Schuster were awarded a grant from the National Cancer Institute (NCI) to investigate this research question.

In addition, over the past year, our team has published numerous high impact papers advancing the understanding of: psychosis across the lifespan, reducing medical morbidity among individuals with serious mental illness, and improving health equity for individuals belonging to minoritized populations. For a full list of published manuscripts and ongoing projects please see the <u>Research</u> section.

⁵Winickoff J, Evins AE & Levy S. (2024). Vaping in youth. JAMA, 332(9), 749-750. <u>https://doi.org/10.1001/jama.2024.13403</u>

2023-2024 BY THE NUMBERS

3 NEW RESEARCH/QI PROJECTS:

- Clozapine point of care absolute neutrophil count testing device (**Principal Investigators**: Freudenreich and Lim; **Community Partner**: NSMHA Freedom Trail Clinic)
- Changing Lives and Changing Outcomes-9 at Worcester Recovery Center and Hospital: Implementing and evaluating a mental illness and criminal risk focused intervention for people with serious mental illness (**Principal Investigator:** Scanlon)
- Gun Violence and Prevention QI Curriculum

18 RESEARCH/QUALITY IMPROVEMENT (QI) PROJECTS IN PROCESS

Selected research/QI projects:

- Medical marijuana, pain, and opioid use in patients with chronic non-cancer pain
- Randomized controlled trial of varenicline for cessation of nicotine vaping in adolescent non-smokers
- Associations between recreational cannabis retail sales and THC detected in psychiatric emergency department presentations
- Mental Contrasting with Implementation Intentions (MCII) as a singlesession stand-alone intervention to increase exercise in persons with mental health challenges
- MAPNET fidelity to the Coordinated Specialty Care and Individual Placement and Support models
- Artificial intelligence-enabled mental health assessments of healthcare providers
- Interrupting developmental pathways to schiszophrenia: Protecting youth at risk for cannabis use and psychosis

For a complete list of all 18 projects, please see the <u>Research</u> section.

\$4,233,466 AWARDED GRANT FUNDS \$8,285,476 TOTAL BUDGET FOR GRANTS UNDER REVIEW

62 PUBLISHED MANUSCRIPTS, BOOKS, EDITED BOOKS, AND BOOK CHAPTERS

38 PRESENTATIONS AND POSTERS DELIVERED 9 OF 37 DELIVERED BY COE PEER CONSULTANTS

AWARDS AND RECOGNITION

- Mr. Paul Alves was asked to join the DMH Commissioner's Advisory Council, which advises the DMH commissioner on mental health policy and challenges and successes within the Massachusetts mental health system.
- Ms. Valeria Chambers received the Lifetime Achievement Award at the Kiva Centers Certified Peer Specialist Award Ceremony.
- Ms. Valeria Chambers was asked by Dr. Thulani DeMarsay to be on the board of the Sankofa Institute for Collective Wellbeing, where they are working to create a curriculum around mental health, trauma and addiction, lived experience, and the behavioral health perspective in Ghana, South Africa, and Zambia, whilst also incorporating African traditional beliefs and values.
- Dr. Abigail Donovan received the 2024 Exceptional Mentorship in the Clinical Realm Award from the Massachusetts General Hospital.
- Dr. Abigail Donovan received the 2024 Zen Award for "exemplifying extraordinary calm in the storm" from the Massachusetts General Hospital Child Psychiatry Fellowship.
- Dr. Abigail Donovan was accepted to the competitive MGH ELEVATE Leadership Program.
- Ms. Jacquie Martinez was awarded a position on the WeSpark Advisory Committee for her expertise as an individual with lived experience and a Peer Specialist.
- MGH FEPP was awarded inclusion in the DMH "Early Psychosis Coordinated Specialty Care-Staff Enhancement and Evidence Based Practice Implementation Master Agreement" which provides funding to support implementation of coordinated specialty care services.

OPERATIONS

DMH ANNUAL CONFERENCE

In partnership with the UMass Implementation Science and Practice Advances Research Center (iSPARC), we co-presented the fourth annual conference, "Innovation, Prevention, and Treatment Strategies for Co-Occurring Mental Health and Substance Use Challenges." The conference was hosted by the MGH COE, held virtually, and had roughly 149 attendees.



The program highlighted four presentations which examined the latest developments in research and treatment for co-occurring mental health and substance use challenges. Dr. Eden Evins, MD, MPH (MGH) presented on the prevalence of comorbidity between serious mental illness and substance use disorders, specifically cannabis and tobacco. Dr. Lourah Kelly, PhD (UMass) discussed the results of a national survey examining which individuals have the highest rates of co-occurring substance use disorders and suicide risk. Dr. Randi Schuster, PhD (MGH) presented on how to mobilize schools to support in the prevention of co-occurring mental health and substance use challenges for youth. Drs. Melissa Anderson, PhD (UMass) and Alexander Wilkins, PhD (UMass) shared their therapy toolkit for providing deaf and hard of hearing individuals with access to treatment for co-occurring trauma and substance use challenges. We were also pleased to continue our tradition of including a panel of individuals with lived experience of mental health challenges at

the annual DMH conference, which discussed the perspectives of peer specialists and recovery coaches. Panelists included Val Comerford, Director of Recovery and Employment for the Central Office of DMH; Celeste Clerk, Director of Recovery for the Western Office of DMH; and Scott Francis of the Massachusetts Organization for Addiction Recovery.

The sixty-nine conference attendees who requested continuing education units (CEUs) represented a range of professions within the field of psychology (35% social workers, 26% licensed mental health counselors, 20% psychologists, 4% occupational therapists, 3% nurses, 12% other). Of the CEU evaluations, 93% of attendees reported they were 'Very Satisfied' or 'Satisfied' with the overall quality of the conference. 88% of attendees rated the educational content of the conference as 'Very Good' or 'Excellent.' Over 91% of attendees indicated that they plan on making changes to their practice based on the findings presented at the conference, and 96% of attendees indicated they learned 'A Moderate Amount' or more from the conference. Attendees reported they enjoyed the structure, length, time management, and accessibility of the conference, and that the presenters were clear, engaging, and covered an excellent variety of topics. Some attendees identified having a more interactive chat feature and possibly holding the conference in-person or earlier in the day as areas to consider addressing in the future.

Thanks to the efforts of Megan Kelly, PhD at UMass, we were pleased to have this year's conference be the first time we offered continuing medical education credits (CMEs) for attendance, with thirteen attendees requesting CMEs. Of the twenty-two CME and non-credit evaluations, 100% of attendees rated the overall quality of the conference and the efficacy of achieving the stated learning objectives as 'Good' or 'Excellent.' 95% of attendees rated the relevance of the conference information to their practice, the efficacy of the conference in enhancing their knowledge, and the relevance of the conference information to their practice as 'Good' or 'Excellent.' 95% of attendees indicated that they plan on making changes to their practice based on the findings presented at the conference. Some attendees identified gaps in knowledge that they would like to see addressed at future DMH Annual Conferences, including how to address cannabis misuse, ongoing statewide SMI initiatives, optimizing community-based treatments, and challenges in increasing the mental health workforce.

A complete recording of the conference can be found on our <u>YouTube channel</u> and the agenda and presentation slides can be found <u>here.</u>

TRAINING THE NEXT GENERATION



Cheryl Foo, PhD

Dr. Foo continues to advance her research on implementing innovative care delivery approaches to expand access and improve engagement in efficacious treatments for people with serious mental illness. She was promoted to Director of Family Services in the MGH First Episode and Early Psychosis Program in March 2024. In her role, she oversees the implementation and improvement of family services in the coordinated specialty care program, and

will supervise the Public and Community Psychology pre-doctoral psychology intern (Maya Wong) in evidence-based family interventions. She is a valued clinician in the MGH First Episode and Early Psychosis Program who is trained in the delivery of both NAVIGATE and McFarlane Multi-Family Group (MFG) models of family intervention and participates in ongoing consultation calls with NAVIGATE and MFG trainers.

As part of her NIMH-funded ALACRITY Center pilot project in collaboration with the Laboratory

for Early Psychosis and Massachusetts Psychosis Network for Early Treatment, she is currently completing analysis on modifiable team characteristics and implementation strategies that will serve as building blocks for the development of best practice guidelines for enhancing patient and family engagement in first-episode psychosis coordinated specialty care programs.

Extending family support and early intervention to a clinical high-risk for psychosis (CHR-P) population, Dr. Foo is also the site principal investigator for the first pilot of Community Reinforcement and Family Training to improve substance use treatment engagement in CHR-P individuals with problematic substance use. This project is funded by the Department of Mental Health and in collaboration with MGH Resilience Evaluation-Social Emotional Training (RE-SET) Program and McLean Hospital.

In collaboration with COE faculty and MGH Inpatient Services (Blake 11), she is also spearheading the development and pilot of a shared decision making intervention designed for individuals with early psychosis and their families targeted at improving acceptance of long-acting injectable antipsychotics.

She also contributes her expertise in mixed methods implementation evaluation on several COE projects aimed at improving access to care. She led a secondary analysis showing the dose-effect and critical functions of community health worker support in overcoming treatment barriers for tobacco cessation in adults with serious mental illness, in press in *Psychiatric Services*. This work informed refinement of the community health worker intervention and its delivery, forming the centerpiece of an R01 submitted to NIMH (**MPI:** Evins, Cather) in partnership with Eliot Human Services. This proposal involves training mental health worker staff at Eliot Human Services to become community health workers and deploying the intervention within Accountable Care Organizations for Medicaid-beneficiaries with serious mental illness. A key objective of this intervention is for community health workers to remediate adverse social determinants of health that impact care.

She also led the development of a standardized training and implementation outcomes battery for training non-clinicians to deliver resilience-promoting interventions (Living in Families with Emotions) for young persons in school and community care settings (**PI**: Holt).

Additionally, she co-first-authored a forthcoming publication that established high rates of psychotic spectrum illnesses in general mental health settings, supporting ongoing efforts to implement psychosis screening in non-specialized community and outpatient mental health settings.

Selected Publications and Posters:

- **Foo CYS**, Potter K, Nielsen L, Rohila A, Maravic MC, Schnitzer K, Pachas GN, Levy DE, Reyering S, Thorndike AN*, **Cather C*, Evins AE***. Implementation of community health worker support for tobacco cessation: A mixed-methods study. *medRxiv*, 2024.01.26.24301835. In press in *Psychiatric Services*. <u>https://doi.org/10.1101/2024.01.26.24301835</u> *Co-senior authors.
- Clauss JA*, **Foo CYS***, **Leonard CJ**, Dokhoylan N, **Cather C**+, **Holt DJ**+. Screening for psychotic experiences and psychotic disorders in general psychiatric settings: A systematic review and meta-analysis. medRxiv 2024.04.14.24305796. Accepted in *Harvard Review of Psychiatry*. *Contributed to work equally. * Co-senior authors.
- Clauss JA*, **Foo CYS***, Utter LA, Coman D, Newton M, **Bhiku K, London J, Donovan A, Cather C, Holt D.** Improving accuracy of screening for Clinical High Risk for Psychosis (CHR-P) in an adolescent population seeking help through the MGH Resilience Evaluation-Social Emotional Training (RE-SET) Program. Poster presented at the Fourth Annual Mass-STEP

Conference; Boston, MA; November 6, 2023. *Contributed to work equally.

Dokholyan KD*, **Foo, CYS***, Burke AS, Charity-Parker B, Kline E, Hasler V, Choksi DP, **Cather C,** DeTore NR & **Holt DJ**. Training community members to deliver a transdiagnostic resilience training intervention for adolescents: An implementation study. Poster presented for the MGH Public and Community Psychiatry Symposium; Boston, MA; March 20, 2024. *Contributed to work equally.



Faith Scanlon, PhD

In the first year of her post-doctoral fellowship, Dr. Scanlon has continued her research on implementing and evaluating treatments for people with serious mental illness involved in the criminal legal system and exploring correlates of legal involvement. Building on work she had done as a psychology intern at Worcester Recovery Center and Hospital (WRCH) prior to coming to the COE, Dr. Scanlon developed a research collaboration with WRCH that will begin

in Y7. This project will involve Dr. Scanlon training staff at WRCH in CLCO-9, an intervention designed to improve illness self-management and reduce subsequent legal involvement for individuals with serious mental illness with a history of criminal legal involvement.

Dr. Scanlon published four papers over the course of the past year. She was first-author on a study reporting on the largely positive perceptions of both treatment recipients and jail administrators of the feasibility and acceptability of implementing CLCO-9 for people with serious mental illness in a jail setting. Dr. Scanlon co-authored a paper on the negative impact of antisocial personality traits on clinical outcomes for people in prison, regardless of intervention dosage. She first-authored a publication on the impact of post-traumatic stress disorder symptoms and incarceration on sexual health outcomes of Black sexual minority men, and co-authored a manuscript examining the association between intellectual functioning and competency restoration outcomes for forensic patients.

Dr. Scanlon also delivered a number of well-received presentations over the past year. She gave an invited presentation at Southern Illinois University - Carbondale on a novel statistical approach to address extreme missingness in treatment data. She co-led a workshop for psychologists working in the Correctional Service of Canada on treating risk factors for legal involvement. Dr. Scanlon also presented her research on criminal legal involvement among people with serious mental illness to community audiences at Massachusetts General Hospital's Schizophrenia Education Day and to a grassroots advocacy organization, Friends and Family of Individuals with Mental Illness (FFIMI).

Dr. Scanlon provides individual therapy for patients receiving services at the North Suffolk Mental Health Freedom Trail Clinic and for patients seen through the MGH First Episode and Early Psychosis Program. She has been trained in Individual Resiliency Training (IRT), the evidence-based NAVIGATE model of individual therapy for first episode psychosis, attends ongoing IRT consultation calls, and has submitted audio recordings of IRT sessions for fidelity review in an effort to enhance her skills and optimize training resources to maximize benefit of available training.

Selected Publications and Posters:

- **Scanlon F**, Morgan RD & Aceves D. (2024). Implementing a treatment for people with serious mental illness in jail: A mixed-methods study of stakeholder perspectives on feasibility and acceptability. *Adm Policy Ment Health*. <u>https://doi.org/10.1007/s10488-024-01380-4</u>
- Lester M, **Scanlon F** & Batastini A. (2024). Doubling down on dosage: exploring the interplay Operations | 14

between dosage effects, antisocial traits, treatment attitudes, and recidivism-related therapy outcomes. *Journal of Criminal Psychology*. Online ahead of print. <u>https://doi.org/10.1108/JCP-01-2024-0005</u>

Scanlon F, Remch M, Scheidell JD, Brewer R, Dyer TV, Albis-Burdige B, et al. (2024). Posttraumatic stress disorder symptoms and incarceration: The impact on sexual risktaking, sexually transmitted infections, and depression among black sexual minority men in HIV prevention trials network (HPTN) 061. *Psychology of Men & Masculinities*,25(1), 44–56. <u>https://doi.org/10.1037/men0000458</u>

Grabowski K, Morgan R & **Scanlon F**. (2023). Intellectual deficits and restoration to competency to stand trial: An examination of IQ cut off scores. *Journal of Intellectual Disabilities: JOID*, 17446295231218782. Advance online publication. <u>https://doi.org/10.1177/17446295231218782</u>

MEDIA OUTREACH

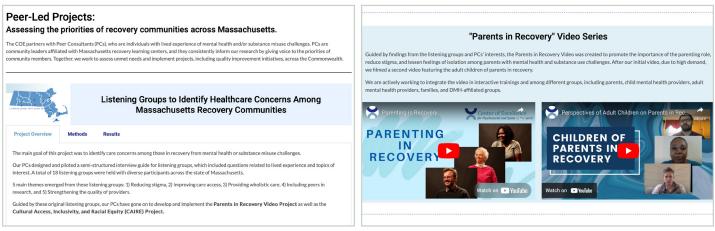
In Y6, we primarily focused our media outreach and accessibility goals on major website updates. In addition to the Video Library page we created in Y5, we have now developed and implemented a <u>new media page</u> dedicated to our over 200 published manuscripts, books, and book chapters. We have also implemented a <u>dedicated page to feature our eight secondary data analysis projects</u>.

Our website received over 1600 visits and over 110,000 search engine impressions in Y6. The top queries leading people to our website included subclinical psychosis, schizophrenia, and peer specialist resources.

Figure 1. Website analytics from Y6



As our peer consultants have spearheaded additional projects, we have also updated the <u>Peer-Led</u> <u>Project page</u> to feature the Parenting in Recovery project as well as the Cultural Access, Inclusivity, and Racial Equity (CAIRE) project with the Southeast Recovery Learning Center (SERLC), as well as the new Peer Integration Project.



The peer-led Parenting in Recovery video continues to be our most impactful video, with over 2500 views to date. In 2024, our YouTube channel received over 1200 views, a watch time of 98.5 hours, and received 15 new subscribers. <u>*Click here to view our YouTube channel.*</u>

For Y7, we have created a new Facebook page for the MGH COE and plan to work closely with our peer consultant, Ms. Ryan Markley, to feature peer consultant-developed social media content, newsletters from the SERLC, and other media to educate our audience on peer resources and to highlight news from MA Recovery Centers.

STAFF

A total of 21 people were employed with us over the course of Y6 (*See <u>Appendix A</u>*). Faith Scanlon, PhD started her role as a clinical and research postdoctoral fellow in September 2023 and we hired one full-time staff member – Catherine Leonard, BS into the role of a clinical research coordinator I. As part of the new community and public psychology training grant, we also hired a new psychology intern, Maya Wong, MS who will start in July 2024 and a postdoctoral clinical and research fellow, Merranda McLaughlin, PhD who will start in September 2024, following the completion of her psychology internship at the University of Washington. In Y6, we retained all of our Peer Consultants, all eight members of our leadership team, and all of our staff members in key roles (i.e., postdoctoral fellows, clinical research coordinators, and program administrators).

Winter/Summer Interns

Sundeep Chakladar, a senior, and Ashlee Tan, a rising sophomore, at Massachusetts Institute of Technology (MIT), interned at the COE this winter (12/2023 to 01/2024) through funding by the MIT Priscilla King Gray Social Impact Internship Program. Under Dr. Foo's supervision, both interns assisted in developing a REDCap form and protocol for conducting an electronic medical record search to verify lifetime behaviors (e.g., suicidal behaviors, substance use), psychiatric diagnosis, and psychiatric psychopharmacology prescriptions for patients referred to the MGH clinical high-risk for psychosis clinic. These data are being used to learn more about characterizing the individuals who are referred to our clinical high risk program and to determine historical factors that predict clinical high risk positivity.

CONSULTATION TO DMH

EXPANSION OF COORDINATED SPECIALTY CARE CAPACITY IN MASSACHUSETTS

We have continued our partnership with MAPNET and DMH to support the expanded availability of evidence-based coordinated specialty care for first episode psychosis across the state. Over the past year, Dr. Cather provided two, 3-day trainings in Individual Resiliency Therapy (IRT) to clinicians from 9 first episode services, including: Beth Israel Deaconess Medical Center, Brockton Area Multi-services Inc., Cambridge Health Alliance, Community Healthlink, Corrigan Mental Health Center, Edinburg Health and Human Services, Eliot Community Human Services, Massachusetts General Hospital, and PREP-West. In this role, Dr. Cather attends monthly MAPNET staff calls and Drs. Cather and Mueser lead twice monthly consultation calls to support clinicians at these agencies in their delivery of compassionate, person-centered, team-based care for first episode psychosis.

INDEPENDENT ASSESSMENT OF NEEDS ASSESSMENT FOR DMH INTERMEDIARY CARE FACILITIES

In January and February 2024, we, in partnership with iSPARC, responded to a request for technical assistance from the DMH Office of Inpatient Management (OIM) to collect data from staff at three DHM intermediary care facilities on their perspectives around best practices for managing aggression and agitation and to identify training needs. Over a period of 3 weeks, we conducted 12 mostly on-site listening groups with a total of 81 participants. The purpose of these groups was to help to establish best practices in the treatment of aggression and the MGH COE was subsequently engaged in the strategic planning process that followed. As part of this plan, Dr. Oliver Freudenreich, a key member of the MGH COE leadership, was engaged to provide consultation to staff at DMH inpatient facilities.

SAFETY AND EFFICACY OF PSYCHEDELICS IN PSYCHIATRIC TREATMENT

In August 2023, we responded to request from DMH from Commissioner Doyle for a high level summary of the safety and efficacy of psychedelics for the treatment of psychiatric disorders. This summary went to Secretary Walsh and it was our pleasure to have this opportunity to contribute to this call for information and participate in the process of research informing policy.

PEER-LED PROJECTS

OVERVIEW

- The peer consultants continued to be an integral part of the COE this year, developing important connections to minoritized communities through relationship-building, marketing and diverse hires, providing consultation to multiple Community Behavioral Health Centers (CBHCs), and collaborating and providing expertise in research and advocacy projects.
- In collaboration with our colleagues at Boston Medical Center (BMC), we continued the Cultural Access, Inclusivity, and Racial Equity (CAIRE) project, implementing our six objectives to help the Southeast Recovery Learning Community (SERLC) become a more welcoming and culturally sensitive organization by extending outreach to minoritized populations. We strengthened the leadership of the individual centers in the SERLC through hiring individuals from minoritized communities to outreach in their neighborhoods and connect with new individuals with lived experience who could use the individual Recovery Learning Communities (RLC). We also upgraded the website design and created more inclusive advertising with flyers and brochures in multiple languages at each center.
- The Peer Integration Project (PIP) was a focal project in Y6 and PIP aimed to identify the challenges and successes Peer Specialists' experience in work settings while providing subsequent recommendations for implementing peer support services across healthcare systems in Massachusetts. All peer consultants took part in facilitating listening groups and conducting rapid qualitative analysis, and plans are currently being made to disseminate the results in partnership with UMass iSPARC.
- Dr. Anne Whitman and Valeria Chambers continued to consult with Cambridge Health Alliance (CHA) to integrate Peer Specialists, Recovery Coaches, and Family Support Specialists to the CHA system. This year, they extended their consulting to the Malden Community Behavioral Health Center (CBHC), which opened in January 2024. They participated in the hiring, orientation, and integration of peer workers for the Malden CBHC and connected these peer workers through weekly meetings with the peers from the already-established Cambridge CBHC.
- Two of our peer consultants, Dr. Anne Whitman and Sandi Whitney-Sarles , applied to be stakeholders on the advisory board for Dr. Eden Evins' Patient-Centered Outcomes Research Institute (PCORI) grant, which aims to use peer support services for tobacco cessation education and skills training. We hope this grant will be funded in 2025.
- In November, Dr. Anne Whitman, Sandi Whitney-Sarles, Jacquie Martinez, Ziona Rivera, and Julia London presented the Parent and Adult Child videos at the National Putting Complex Care at the Center conference in Boston. This included a facilitated panel followed by small discussion groups.

PROJECT UPDATES

Cultural Access, Inclusivity, and Racial Equity (CAIRE)

The CAIRE project at the SERLC has undertaken significant initiatives to enhance diversity, equity, and inclusion across its centers and programs to better serve diverse communities and create a more welcoming environment for all who attend. The CAIRE project was developed in Y4, and below we outline the goals and corresponding improvement plans implemented in Y6.

Objective 1: Enhance SERLC Marketing

Brochures and flyers tailored to each of the four Recovery Connection Centers (RCCs) were created to cater to more diverse language needs and reach a wider audience. <u>Click here to view</u> <u>the brochures and flyers</u>. These materials were translated into Haitian Creole, Chinese, and Urdu with the help of the bilingual SERLC Peer Community Facilitators and RCC employees. Peer Bridgers shared the materials with individuals while making connections in settings where these individuals were transitioning out of restrictive facilities and back into the community.

SERLC swag was created and utilized at community events hosted by the RCCs. The flyers and brochures were also distributed at these events, including handouts describing the CAIRE project.

We created the first quarterly newsletter in June 2024, with a Diversity, Equity, and Inclusion (DEI) focus that featured the CAIRE Project, BIPOC and LGBTQIA+ Young Adult support groups, and volunteer committee information. It also included Juneteenth and Pride sections with resources for BIPOC and LGBTQIA+ communities. Finally, SERLC staff from BIPOC and LGBTQIA+ backgrounds were showcased with bios, recovery stories, art, and poetry.

Objective 1 Goals for Y7

- Marketing materials will be expanded to more languages for underserved communities. A brochure and flyer for veterans will be created. The SERLC plans to acquire additional swag for community events and provide a Canva tutorial for staff to enhance their own marketing materials.
- The upcoming quarterly newsletters for Y7 will maintain a DEI focus, featuring content from diverse community members. The Fall edition will cover substance use and suicide prevention specifically for veteran, BIPOC, and LGTBQIA+ communities.
- The SERLC will continue to recruit volunteer members for the three committees mentioned above. Support will be given to community members lacking technology access by providing iPads or laptops for virtual meeting participation.

Objective 2: Strengthen Connections Between the SERLC and Local Underrepresented Communities

The SERLC Program Director continued to meet regularly with the Area Program Directors (APDs) from each RCC to make plans for outreach to underrepresented communities.

The APDs and staff participated in numerous community resource events emphasizing diversity, including Pride festivals and Juneteenth gatherings. They showcased the new marketing materials and set up resource tables at twelve celebrations to enhance engagement with underserved communities.

The BMC Haitian Facilitator established connections in the Brockton area with local city council officials and shelters with guests from the Haitian Community.

Objective 2 Goals for Y7

- The SERLC plans to continue building relationships with community organizations and venues to reach underrepresented neighborhoods by distributing flyers, attending local events, and hosting resource tables.
- Informational and support sessions in multiple languages will be held and tailored marketing materials will be distributed to engage Haitian, Asian American/Pacific Islander, and Veteran communities. The SERLC will continue to seek facilitators with connections to Portuguese, Latine, Indigenous, and Black communities in the Southeast, advertising positions on the SERLC and BMC websites, as well as on Facebook and Instagram.
- The SERLC plans to collect qualitative data and provide a more comprehensive picture of the services of the SERLC. This will be modeled after Hyannis RCC's daily online survey which gathers qualitative feedback from community members. Other RCCs may adopt a similar approach.

Objective 3: Hire More Diverse Staff and Enhance Staff Training Among Existing Staff Around Cultural Sensitivity and Humility

We have continued to hire and promote BIPOC staff at the SERLC. BMC Haitian/Cape Verdean and LGTBQIA+ Peer Community Facilitators were hired. Additionally, the Quincy RCC recently welcomed a bilingual Transitional Age Youth (TAY) leader who is fluent in Urdu and has strong ties to the Muslim community. His position is anticipated to boost engagement with young adults near Quincy and foster connections within the Muslim community.

Objective 3 Goals for Y7

• The SERLC will enhance staff development by offering peer-focused trainings that emphasize inclusivity, anti-racism, and cultural diversity. Additionally, the SERLC plans to create internal trainings in partnership with the COE and other RLCs. Ryan Markley, a trainer in many peer-focused areas, will help find trainings for staff and aid in the development of original SERLC trainings focused around suicide prevention, Trauma-informed Peer Support, and Digital Peer Support. A team building/staff development day is also in the works for all SERLC staff.

- We will hire BMC Peer Community Facilitators with diverse community connections. The initial Community Navigator and assistant positions at SERLC are pending re-design based on needs. The Quincy RCC will hire a TAY Leader and a Peer Bridger, the Fall River RCC will hire a TAY Leader, and the Brockton and Hyannis RCCs will try to hire Community Connectors.
- The COE will develop an orientation training that covers SERLC services, mission statement, peer support basics, sharing of recovery stories, ethics, intersectionality, sexual orientation and gender identity, and job details for new BMC Facilitators.

Objective 4: Provide More Social Activities

An annual calendar was created marking heritage months, awareness days, and remembrance days. From this calendar, the SERLC arranged multicultural events and holiday celebrations in the RCCs and neighboring communities, including events for Black History Month, Juneteenth, Kwanzaa, Mental Health Awareness Month, Minority Mental Health Month, LGTBQIA+ Pride Month, and Disability Pride Month.

The centers hosted virtual and in-person monthly guest speakers from diverse backgrounds to educate and connect with staff and community members. Brockton RCC held monthly potluck meals, most of which were multicultural-themed. The Quincy RCC held an informative presentation by a funeral director for the older adult members about end-of-life planning.

Word-cloud collaborative art projects on "Why do you return to the RCC?" were initiated at each center and will continue into Y7. The Brockton RCC created an art project with painted tiles depicting a cityscape of Boston in an art group led by a Veteran community member.

Ninety-two peer community members responded to an anonymous survey distributed by the SERLC. Online and paper versions were distributed. Members provided demographic information, responded to questions about their satisfaction at the RCCs, and provided ideas for new groups, social activities and events. 86% of respondents said they were 'Satisfied' or 'Very satisfied' with the groups offered at the RCCs. <u>*Click here to view respondent demographics.*</u>

To address low BIPOC participation, the Brockton RCC held a support group at a local homeless shelter for Haitian Creole individuals that focused on trauma surrounding immigration. The group is well-attended and will provide a model for future underrepresented community groups in Y7.

The Fall River RCC held a special group once per month entitled, "Why do you come back to the RCC?" which helped the peer members formulate what should happen next in their community.

Click here to view the calendar and art projects.

Objective 4 Goals for Y7

• The SERLC will continue to plan more social activities. The Veteran art group at Brockton RCC will resume this fall. The Brockton RCC Guest Speaker series will continue into Y7. The RCCs will have open houses this Fall and the centers will continue to prioritize multicultural holiday events while seeking input from community members for activity ideas.

• Data collected from the anonymous SERLC survey suggests we now have a successful methodology to reach RCC participants. The SERLC will continue to distribute this survey annually to assess member engagement and satisfaction with services in the coming year.

Objective 5: Increase Engagement of Different Communities Using Technology

The SERLC website was enhanced to be more user-friendly and representative of diverse members. Additions include a Mission Statement, Land Acknowledgement, CAIRE project section, career page, comfort agreement, newsletter, and creative endeavors of peer members. The Hyannis, Quincy, and Fall River web pages now have updated group descriptions and graphics. Local RCC calendars are updated monthly with RCC and community events. We also introduced a new website feature that has users fill out a contact form and provides them with an email containing a welcome packet containing flyers, brochures, RCC information, calendars, newsletters, and career opportunities, and details about the Peer Support Line. Finally, the SERLC created an email address (southeastrlc.ma@gmail.com) for newsletter submissions and for committee volunteers to express interest.

The SERLC recruited volunteers for three committees, including DEI, Young Adult Advisory Council (YAAC), and Community Engagement. Four individuals joined the DEI committee and two individuals joined the YAAC and Community Engagement committees, which will start in October 2024.

We enhanced our social media presence to have more engaged Facebook and Instagram accounts to promote activities and events at the RCCs. Various diverse holidays and awareness days were acknowledged on the <u>Facebook page</u>.

The centers hosted events and guest speakers via Zoom. The Brockton RCC hosted the BIPOC Peer Professional Panel, the Council on Aging, the Disability Law Center, the Massachusetts Behavioral Health Help Line, the Bureau of Substance Addiction Services, and the Massachusetts Rehabilitation Commission. These presentations were offered both virtually and in person to increase accessibility.

Objective 5 Goals for Y7

- Another technology needs assessment will be done regarding community members' access to SERLC virtual spaces. Five laptops and five tablets will be distributed, prioritizing committee volunteers.
- The SERLC website will expand to include an events page, trainings with a DEI focus, and activities from peer agencies and the SERLC. It will also feature upcoming outings, the virtual Brockton guest speaker series, RCC-planned events, and community engagements.

Objective 6: Improve the Aesthetics and Inclusiveness of Meeting Spaces

Along with community input, the RCCs continued modifying their physical spaces by introducing softer furniture, better social group seating, plants, improved lighting, and more displays of artwork and crafts made by community members. The RCCS continued to create opportunities for peer members to become involved with further enhancing the aesthetic environments of the RCCs by sharing design ideas and hanging artwork for display.

Objective 6 Goals for Y7

• The Quincy RCC will continue seeking input from community members to enhance and redesign areas within the center, creating a more inviting and soothing environment. Vinfen will perform some needed maintenance and repaint the center. Other centers will continue to adapt their spaces to be more comfortable for their members.

Peer Integration Project

The purpose of the Peer Integration Project (PIP) is to assess the challenges and successes of integrating peer support into care systems across Massachusetts, and to provide subsequent recommendations in an effort to optimize the efficacy and career satisfaction of Peer Specialists.

Procedure

The PIP project consisted of four virtual listening groups. Participants were Certified Peer Specialists (CPSs) who identified as having worked for at least 10 hours per week for a minimum of one year in Massachusetts, were proficient in spoken English, and gave permission for the group to be audio-recorded. Participants were recruited through email network listservs to various organizations (e.g., CBHCs, hospitals, etc.) across Massachusetts. COE peer consultants and a clinical research coordinator facilitated each group before the sessions were audio-recorded and transcribed by a HIPAA-compliant transcription service. Participants completed a brief demographics questionnaire prior to the group. Groups were facilitated using a semi-structured interview guide broken into four primary topics: organizational culture, resource availability, training and education, and role definition. During each topic, members were prompted to consider barriers to providing quality peer support services as well as recommendations to better integrate peer support services in the future.

Data Analysis

The coding team conducted a rapid analysis to systemically identify themes from transcripts. They developed a template that allowed coders to generate concise codes under each of the four topics, list impactful quotations, and generate a summary paragraph. A thematic analysis was conducted to identify common ideas that were frequently referenced in participants' responses and transferred the data into one primary template. Efforts were made to create themes that were inclusive of participants' responses.

For the methodology, procedures, data analysis and results, <u>please click here to view the full PIP</u><u>Report.</u>

Results

Twenty-four CPSs attended the listening groups. We present the barriers mentioned by the listening group participants within each of the four topics, followed by recommendations based on feedback from participants and analysis from the coding team in the following table.

Organizational Culture		
Barriers	Recommendations	
 Clinical team interactions: lack of respect and validation from clinicians Number of Peer Specialists: often only/ one of few CPSs at organization Focus on quantitative data: change is mainly assessed with quantitative data, which doesn't capture peer work Struggle to create change: CPSs lack the time/encouragement to educate colleagues on peer support and values Documentation of peer work: struggle to document services received without breaking CPS Code of Ethics Peer supervision: CPSs are often supervised by non-peers Communication with clinical team: lack of communication between clinical staff and CPSs 	 Involve CPSs in new employee orientations to educate staff Create workgroup to assess minimum requirement for number of CPSs in all Requests For Proposals (RFPs) Develop qualitative measures of support services delivered by CPSs Develop a "peer culture" handbook for non- peers explaining peer support and recovery values Develop documentation template that specifies topics CPSs can share with clinical colleagues Provide supervisors who are CPSs; schedule CPS team meetings for entire organization Add RFP requirement for CPSs to attend clinical team meetings 	
Resource Availability		
Barriers	Recommendations	
 Low salary: low wages for peer work Lack of transportation: Many CPSs lack transportation Access to supplies: inadequate access to technology Time management: CPSs feel stretched thin with large caseloads Lack of collaboration: lack of collaboration with CPSs from other organizations Lack of reintegration programs: no support systems for CPSs reintegrating into work post-time off 	 Create statewide minimum pay guidelines for CPSs Fund a ride-sharing program or provide agency vehicles Provide CPSs with access to printers, computers, and work technology Allocate CPSs working hours for networking/ supervision Create learning collaborative forum for Peer Specialists to meet monthly Provide CPSs with opportunities to make transition from disability assistance to workforce 	

Training and Education

C C			
Barriers	Recommendations		
 Peer-focused training: few such trainings offered regularly Substance use training: CPSs feel unequipped to deal with substance use challenges DEI training: lack of such training Technology training: CPSs need more technology training on applications needed for job tasks Intentional Peer Support (IPS): lack of opportunities to attend IPS due to cost Paid time for trainings: CPSs expected to complete trainings on their own, unpaid time 	 Provide CEUs for CPSs; create master list of recommended best-practice peer trainings Offer Self Management and Recovery Training (SMART) and dual-recovery substance use training Offer DEI training for CPSs Develop training for CPSs for common work technology; provide technology support Offer IPS training and opportunities for CPSs to become IPS trainers Require organizations to account for paid training time in RFPs 		
Role Definition			
Barriers	Recommendations		
 Career ladder: no career ladder for professional development Lack of understanding of peer role: value & scope of CPS role not understood by entire team Requests to work outside peer role: CPSs often asked to perform duties outside peer role Burneut: CDSs superiorses frequent 	 Use the TRANSCOM (Transformation Committee of the State Mental Health Planning Council) levels model to define CPS positions Train supervisors on CPS Code of Ethics and CPS role Communicate with supervisors to ensure CPSs are assigned duties within job description 		
 Burnout: CPSs experience frequent burnout 	 Encourage CPSs to monitor for burnout 		

- 5. Lack of trust between clinical staff and CPSs: clinical staff don't seem to trust CPS' capacity to handle tasks
- 6. **Salary/benefits package:** CPSs feel they don't make a livable wage and often don't receive benefits
- Train clinical staff on how to avoid bias and discrimination against those with lived experience

and train supervisors in supporting

employee wellness

6. Tie CPS positions to salary levels; standardize human resource guidelines across organizations

Implementing PIP recommendations: Cambridge Health Alliance

For a description of the challenges and recommendations implementation at the Cambridge Health Alliance, see the <u>MGH COE Peer Integration Project slide presentation</u>.

Conclusion

Our assessment of Peer Specialist working conditions, through listening groups and rapid qualitative analysis, revealed several areas of improvement desired by this group and subsequent recommendations to aid in the implementation of peer support services in healthcare organizations across Massachusetts. These areas of improvement fall into the four content areas the listening groups were structured around: organizational culture (e.g., interactions with clinical colleagues, supervision, number of CPSs at an organization, data collection), resource availability (e.g., access to transportation, office supplies, and reintegration programs, time management, collaboration, low salary), training and education (e.g., access to peer-focused, substance use, DEI, and technology training), and role definition (e.g., trust between clinical staff and CPSs, lack of career ladder and understanding of the peer role, inconsistent salary and benefits, and burnout). As a result, in Y7 we will make recommendations to policy makers, behavioral health providers, and fellow Peer Specialists and other peer workers, with the goal of improving the working conditions, effectiveness, and satisfaction of CPSs.

Parenting Project

As reported in Y3 - Y5 DMH Annual Reports, the peer consultants created two videos: "Parenting in Recovery" and "Perspectives of Adult Children on Parents in Recovery."

Two presentations of the parent and adult child videos were held this year. The videos were presented with a facilitated discussion to the iSPARC Consumer Council, which is run by Dr. Melissa Anderson. The peer consultants, in addition to Ziona Rivera, presented the videos along with a facilitated discussion at our first national conference, Camden Coalition's Putting Complex Care at the Center in Boston, MA, which had roughly 35 attendees.

The videos were also central to seven trainings for medical and psychiatry residents at McLean Hospital, Harvard Medical School, Boston Children's Hospital, Jefferson University, BMC, and MGH. The trainings discussed recovery, peer consultants' role in healthcare organizations, and how providers can best support parents dealing with mental health and or substance use challenges. We also distributed flyers detailing the videos at community events such as NAMIWalks Massachusetts, the "Party for the Planet" Earth Day Celebration hosted by the Franklin Park Zoo, and the Visions of Community conference hosted by the Federation for Children with Special Needs.

The Adult Child video has had almost 500 views, 178 of which were in the past year. The Parent video has over 2,500 views on YouTube, 614 of which were in the past year.

PEER CONSULTANT DISSEMINATION

The peer consultants gave seven presentations on a variety of topics throughout the year.

- Valeria Chambers gave a presentation and participated on a panel at the National Academies of Sciences, Engineering, and Medicine, where she presented on disparities in mental health care, potential solutions, and recovery stories shared by Peer Specialists and Recovery Coaches.
- Paul Alves directed the Recovery Coach Trainer Retreat for the Recovery Education Collaborative.
- Valeria Chambers presented to Black Voices: Pathways for Recovery and the Mental Health

Association of New Jersey for BIPOC Mental Health Awareness Month about Recovery Learning Centers, peer support communities, and the process of becoming a Recovery Coach.

- Dr. Anne Whitman and Valeria Chambers presented to roughly 75 attendees at the CHA's Grand Rounds, where they discussed support for Peer Specialists, recovery models, and factors influencing peer support effectiveness.
- Drs. Cori Cather and Anne Whitman served as panelists at Bristol Myers Squibb's Schizophrenia Disease State Educational Seminar, with approximately 60 attendees.
- Dr. Anne Whitman, Jacquie Martinez, Sharina Jones, Ryan Markley, and Sandi Whitney-Sarles led a workshop and panel discussion at the Massachusetts Peer WorkForce Coalition Summit, which covered peer consultant research projects at the COE and provided resources from recovery organizations. The summit drew roughly 45 attendees.
- Valeria Chambers shared her recovery story and insights on peer support and advocacy with undergraduate and master's level students at Brandeis University, further enriching the educational experience of future professionals in the field.

PEER CONSULTATION TO OTHER RESEARCH GROUPS, COMMUNITY GROUPS, AND PROVIDERS

Integration of the Peer Workforce into Community Behavioral Health Centers

- Dr. Anne Whitman and Valeria Chambers continued in their work with CHA to help select and integrate Peer Specialists and Recovery Coaches into the CHA CBHC and a new location in Malden MA. Since July 2023, they have:
 - Assisted in hiring of additional peer workers: one Peer Specialist, two Recovery Coaches, and three Family Support Specialists.
 - Appointed Valeria Chambers as a Training Coordinator for the peer workers at CHA, where she has procured and offered training on the following topics: CPS Roles, Values, and Activities; Facilitating Post-Traumatic Growth & Recovery by C4 Innovations; Hearing Voices and Alternatives to Suicide from the Wildflower Alliance; and Recovery Coach Academy & Supervisor Development by Paul Alves from Choice Recovery, Inc.
 - Continued their weekly support and supervision meetings for peer support workers.
 - Helped further define peer roles and worked with supervisors and peer workers to troubleshoot issues that arise around role definitions of Recovery Coaches, Peer Specialists, and Family Support Specialists.
 - They continue to meet weekly with Joan Taglieri, Senior Director at CHA, to troubleshoot and plan for the continued integration of peer staff at the CHA CBHC.
- Dr. Anne Whitman and Sandi Whitney-Sarles consulted with Tasha Ferguson from the Senior Community Behavioral Health and Crisis Services at BMC to lead a de-escalation training session for peer workers at CBHCs across multiple hospitals.
- Dr. Anne Whitman, Sandi Whitney-Sarles, Valeria Chambers, and Ryan Markley met with peer support workers from McLean Hospital and BMC for a monthly CBHC gathering, where they discussed strategies for becoming an effective change agent within larger healthcare systems.
- Ryan Markley, Valeria Chambers, and Sharina Jones created and presented materials on trauma trainings and resources for Peer Specialists for distribution at the CBHC meeting.

Support Groups for Peer Staff

- Sandi Whitney-Sarles, Dr. Anne Whitman, and Michael Siena, a Peer Specialist at the Metro Boston Recovery Learning Community, ran a monthly support group for Peer Specialists and Recovery Coaches at BMC. Issues discussed include housing, how to access local services, frustrations with the integration of peer services, and support resources for clients or colleagues who might be struggling with suicidal ideation.
- Valeria Chambers facilitated a weekly support group for BIPOC Peer Specialists and Recovery Coaches through Black Voices: Pathways 4 Recovery.
- Sandi Whitney-Sarles co-facilitated a peer support group on Cahill 3 Inpatient Unit at CHA, which discussed how to best support peer workers.
- Stan Langston led a weekly in-person group through The RECOVER Project for veterans seeking mental health and/or substance misuse support.
- Dr. Anne Whitman, Sandi Whitney-Sarles, Valeria Chambers, and Ryan Markley began a monthly support group for peer workers statewide in response to feedback from the Peer Integration Project.
- Valeria Chambers and Dr. Anne Whitman ran multiple weekly support groups and case reviews for certified Peer Specialists, Recovery Coaches, family partners, and CBHC employees at CHA. Meeting topics included finding more effective treatment options for substance use challenges, sharing recovery stories, social service referrals, differences in peer staff roles, scheduling coordination, outreach for unhoused individuals, union classification for Peer Specialists, and workspace allocation shortages.
- Sharina Jones biweekly led the Can We Talk...[®] series at the Cory Johnson Program for Post-traumatic Healing.

Research

- Dr. Anne Whitman collaborated with Drs. Diane Beckman, Russell Schutt, and Jonathan Delman to devise recruitment and retention strategies for a grant funded by the Patient-Centered Outcomes Research Institute (PCORI) entitled "Comparative Effectiveness of Cognitive Enhancement Therapy versus Social Skills Training in Serious Mental Illness" (**PIs:** Matcheri S. Keshavan, MD, Stanley Cobb Professor and Academic Head of Psychiatry, Beth Israel Deaconess Medical Center and Massachusetts Mental Health Center, Harvard Medical School; and Russell K. Schutt, PhD, Staff Scientist, Beth Israel Deaconess Medical Center, Harvard Medical School, Professor Emeritus of Sociology, University of Massachusetts Boston).
- Jacquie Martinez, Valeria Chambers, and Dr. Anne Whitman consulted with St. Francis House representatives to recruit BIPOC participants for a grant funded by the National Institute on Aging entitled "Healthy Bodies, Strong Minds" (**PI**: Margarita Alegria, PhD, Chief of the Disparities Research Unit, Massachusetts General Hospital). The grant focuses on a mental health and disability intervention using trained Community Health Workers and Physical Therapists to work with older adults who report mild to moderate anxiety and depression. Participants are recruited from community based organizations that service BIPOC communities in NY, FL, MA and Puerto Rico.
- Jacquie Martinez and Sharina Jones served on the advisory board of an NIH-funded grant entitled "Alacrity Center for Early Screening and Treatment of High-Risk Youth" (**PIs:** Benjamin Le Cook, MPH, PhD, Cambridge Health Alliance Health Equity Research Lab, Associate Professor of Psychiatry at Harvard Medical School, and Philip Wang, MD, DrPH, Director of the Center for Learning Health Systems at Brigham and Women's Hospital, Professor of the Practice of

Psychiatry at Harvard Medical School). Valeria Chambers convened and facilitated the Teen/ Young Adult and Parent/Caregiver advisory boards.

Mental Health Advocacy

- Drs. Cather and Whitman wrote a letter of support for Dr. Kelly Irwin's proposal to the Program in Cancer Outcomes Research Training Fellowship through the National Cancer Institute for the project "Increasing the reach of person-centered collaborative care for adults with cancer and mental illness." This project builds on Dr. Irwin's body of work designed to mitigate the cancer mortality gap and improving quality of life for individuals impacted by serious mental health conditions.
- Dr. Anne Whitman consulted with Colleen Nguyen from the Broad Institute to discuss strategies for incorporating individuals with lived experience into its research initiatives.
- Jacquie Martinez participated in an interactive teaching discussion panel for over 150 Harvard first-year medical students. She and other certified Peer Specialists engaged students in practicing discussion skills through sharing their own recovery stories and using case studies focused on psychiatric care to build the students' understanding and empathy.
- Jacquie Martinez was invited to join the Massachusetts Commission for Grandparents Raising Grandchildren advisory committee, which aims to serve as a resource on issues affecting grandparents and relatives other than parents raising children.
- Valeria Chambers was invited to join the HEALthy Brain and Child Development study's community advisory board run by Drs. Ellen Grant, MD and Michelle Bosquet Enlow, PhD, at Boston Children's Hospital. This study looks at pregnant women who have struggled with substance use challenges to track the mother and child's well-being and development.
- Dr. Anne Whitman served on the advisory board for the Broad Institute Discovery Center and consulted with Nora Long to offer suggestions on boosting attendance and community participation at the center.
- Dr. Anne Whitman provided consultation to the Broad Institute regarding a symposium where scientists from the Stanley Center for Psychiatric Research discussed the genetic and biological underpinnings of psychiatric conditions.
- Sharina Jones attended the Doors to Wellbeing Navigating Authentic Advocacy: Uplifting Black & Queer Communities webinar, where she spoke of the Peer Integration Project at the COE.

TRAINING FOR PEER CONSULTANTS

- Dr. Anne Whitman, Sandi Whitney-Sarles , and Valeria Chambers attended the Hearing Voices Training for Peer Support Workers, which aims to help individuals who are experiencing auditory hallucinations talk about and find meaning in their experiences.
- Ryan Markley completed the Living with Suicide: Training the Trainer course, which provides a peer-oriented approach to suicide awareness. She also became certified to be a trainer for future courses.
- Ryan Markley facilitated the Living with Suicide training for Worcester residents through the Kiva Center.
- Dr. Anne Whitman, Valeria Chambers, and Caroline Mazel-Carlton, a trainer from the Wildflower Alliance, gave an excerpt of the Alternatives to Suicide training to Recovery Coaches, Peer Specialists, and Family Support Specialists at the Cambridge CBHC.

OTHER PEER ACTIVITIES

Awards & Recognition

- Paul Alves was asked to join the DMH Commissioner's Advisory Council, which advises the DMH commissioner on mental health policy and challenges and successes within the Massachusetts mental health system.
- Jacquie Martinez was awarded a position on the WeSpark Advisory Committee for her expertise as an individual with lived experience and a Peer Specialist.
- Valeria Chambers was asked by Dr. Thulani DeMarsay to be on the board of the Sankofa Institute for Collective Wellbeing, where they are working to create a curriculum around mental health, trauma and addiction, lived experience, and the behavioral health perspective in Ghana, South Africa, and Zambia, whilst also incorporating African traditional beliefs and values.
- Valeria Chambers received the Lifetime Achievement Award at the Certified Peer Specialist Awards at the Massachusetts State House.

PLANS FOR THE FUTURE

- The peer consultants will present the results of the PIP to policy makers, behavioral health agencies, and peer groups. We also hope to collaborate with iSPARC around recommendations for implementing peer support services in healthcare organizations and to adapt their peer supervisor handbook for non-peer staff.
- The peer consultants will also select and develop best-practice trainings for Peer Specialists based on feedback from the PIP and CAIRE projects, such as trainings on the CPS Code of Ethics and Peer Specialist role.
- The monthly Peer Support for Peer Support Workers meetings will continue in Y7 and will include training modules for Peer Specialists.

Peer-Led Projects | 30

CENTER-COMMUNITY COLLABORATIONS

Community Partners: The NAN Project, Beverly Middle School, Ohrenberger School, Esperanza Academy, Children's Cove Child Advocacy Center, Connections Family Resource Center, Roxbury Boys and Girls Club, MGH Chelsea Healthcare Center

Title: Living in Families with Emotions (LIFE): A resilience-promoting intervention for at-risk adolescents and their families

Principal Investigator (PI): Daphne Holt, MD, PhD

In partnership with the Massachusetts Department of Mental Health, we are building capacity in local schools and community care setting to expand access to evidence-based interventions to address the youth mental health crisis. This project aims to design and implement a training program to teach providers, educators, and bachelor's level clinicians in the community who work with adolescents to deliver an time-limited, group-based, resilience-promoting intervention (plus two parent/caregiver sessions) for middle-school aged adolescents, called Living In Families with Emotions (LIFE). Our previous research have shown that LIFE decreases emerging symptoms of mental health conditions. We have: 1) adapted and expanded the LIFE manual (8- and 16-session versions) to make it accessible and user-friendly for non-clinicians, 2) developed a 2-day training program and supervision plan to train community based clinicians as well as non-clinician community providers and educators to deliver LIFE, 3) scripted and filmed 9 brief videos for caregivers that will accompany the LIFE program, and 4) designed an evaluation plan and research protocol to assess the effectiveness and impact of the training as well as the adoption of LIFE in the community partner program/institution.

We conducted three virtual/in-person training workshops this year, where 73 teachers, parent volunteers, peer coordinators, school counselors, and administrative leaders from 8 community partner organizations were trained in LIFE. Expanding and adapting the LIFE training workshop to be deliverable both in-person and over zoom allowed us to reach sites with limited access to Boston's hub of mental health services and expertise. We focused on providing trainings to community partners located in under-served and under-insured areas of the state, including

those officially designated as Health Professional Shortage Areas (HPSAs) (e.g., Chelsea/Everett/ Revere/Lawrence), and included schools and community organizations with a wide reach (e.g., NAN Project, which serves 70+ schools; Massachusetts Family Resource Centers; Boys and Girls Club, which has 50+ chapters). Following the training workshop, trainees perceived LIFE to be highly acceptable and appropriate to the needs of the population they serve, and highly feasible to implement in their program. Trainees also said that they felt equipped to better understand youth mental health needs and apply LIFE skills. After the training workshop, trainees also reported significantly greater openness to using evidence-based practices compared to before.

LIFE was also successfully deployed in two middle schools, with over 12 children/adolescents participating in LIFE groups as part of their school program. As part of our competency-based training model, trainees received weekly one-hour supervision with LIFE trainers and were observed for some sessions to assess for fidelity to the intervention. Trainees delivered LIFE with fidelity and also provided valuable feedback to improve the content, delivery, and sustained implementation of LIFE in their organizations. We continue to prioritize partnership building, engagement, and collaboration with our community partners to improve how LIFE can fit into and continue to be carried out in their organization/programs. We will be expanding deployment of LIFE to 5 sites in 2024-2025, with a goal to reach more Spanish-speaking communities, historically under-served population (e.g., in partnership with MGH Chelsea Healthcare Center and Esperanza Center in Lawrence). We will translate the parent/caregiver portion of the manual and the caregiver videos into Spanish, and the entire LIFE manual will be translated into Spanish ultimately.

Community partner: Bridge Over Troubled Waters; Boston, MA

Titles: Motivating youth - brief engagement around substance use targeting youth experiencing homelessness (MY-BEST): A pilot intervention to engage youth experiencing homelessness in substance use treatment; Rapid Rehousing Outcomes

Principal Investigator (PI): David Beckmann, MD

Youth experiencing homelessness (YEH) carry a disproportionate burden of medical and psychosocial challenges, including high rates of problematic substance use. Over the past few years, we have partnered with Bridge Over Troubled Waters, a low-threshold social service agency serving YEH, to conduct a study aimed to assess the feasibility of a novel, 5-session, motivational interviewing-based intervention for YEH with problematic substance use called Motivating Youth: Brief Engagement around Substance Use Targeting Youth Experiencing Homelessness (MY-BEST).

In this pilot randomized controlled trial, youth accessing services at were randomized to MY-BEST+ therapeutic case management (TCM) or treatment at usual (TCM only). Standardized instruments were used to assess substance use (amount of use, readiness for change), mental health, and service utilization. Assessments were completed at baseline (pre-), end of treatment (post-), and at one-, two-, and three-month follow-up timepoints; however, analyses were restricted to pre-post treatment due to low rates of follow-up completion.

Forty participants were randomized, comprising primarily young adult (M = 21.5 years) males (60%) of color with a high burden of substance use disorders (SUD), particularly cannabis use disorder (90.0%) and alcohol use disorder (42.5%), and high rates of probable post-traumatic stress disorder (PTSD) based on screening (65.5%). Clinicians were able to implement MY-BEST with high fidelity to the manual, and participant feedback indicated that the intervention was acceptable and engaging. Participants randomized to MY-BEST + TCM completed more sessions (3.6, compared to 1.9 in TCM) and were more likely to say they would recommend the sessions to others (94% vs. 85% in TCM, NS). At post-treatment, participants randomized to the MY-BEST intervention showed a significant decrease in past month days of alcohol use and those in the TCM group, showed a slight increase in past month days of alcohol use, p = .015. There were no pre-post treatment differences

by group in cannabis use.

MY-BEST is a novel, brief, psychosocial intervention that is feasible to deliver to YEH with problematic substance use. MY-BEST + TCM was more effective in reducing alcohol use, but not cannabis use and there were some indications that MY-BEST was more effective than TCM in engaging youth. More work is needed to determine how to best address substance use among YEH, a vulnerable demographic with a high burden of adverse social determinants of health.

Manuscript in preparation:

Beckmann D, **Bhiku K**, Ducharme P, **Nagendra A**, **LeFeber L**, Bulger J, **Kritikos K**, **Skiest H**, **London J, Mueser KT** & **Cather C**. Pilot randomized controlled trial of a motivational enhancement intervention for problematic substance use among youth experiencing homelessness.

Our second project with BOTW was a retrospective review of young adults who were recently granted one year of housing in a rapid rehousing (RRH) program. Our primary outcome was whether participants had a successful housing, which we defined as either finding independent housing or renewing a RRH lease for a second year. We defined unsuccessful housing outcomes as failing to acquire independent housing or not obtaining a second year RRH lease. Our secondary outcome was to examine predictors of unsuccessful housing outcomes through analysis of demographic variables, substance use, and mental health measures.

Of the one hundred and four young adults who participated in the RRH program, participants were primarily of color (86%) with mild anxiety and depressive symptoms. There was a high prevalence of cannabis use (72%), with over a third of those individuals (40%) reporting daily cannabis use. While enrolled in RRH, 36% of participants reported experiencing and/or witnessing interpersonal violence (IPV) and 30% of individuals assigned female at birth became pregnant. Two thirds (64%) of participants had successful RRH outcomes at one year. Predictors for unsuccessful housing outcomes included frequent cannabis use, experiencing and/or witnessing IPV during RRH, and becoming pregnant during RRH. These findings highlight the need for appropriate additional services to support young adults transitioning from homelessness to housing through RRH programs who are using alcohol or cannabis, have relational trauma histories, or may be at high risk for becoming pregnant.

Community partner: The Cory Johnson Program for Post Traumatic Healing; Roxbury, MA **Title:** A programmatic evaluation of post-traumatic healing

Program Evaluation Team: Colleen Sharka, LMHC, Deborah Johnson, Arun Nagendra, PhD, Kamila Bhiku, Corinne Cather, PhD, Derri Shtasel, MD, MPH

We have continued our collaboration with CJP leadership on the longitudinal evaluation of how CJP services impact participants' mental health. We partnered with CJP to administer longitudinal assessments to participants between 2020-2023. A total of 90 participants completed the surveys, with 41 (46%) completing at least two rounds of surveys.

• Our findings showed that CJP participants had high rates of program attendance, with almost ³/₄ reporting they attended a program at least once a month, and about a third reporting that they attend a program at least once a week. Approximately, 35% of participants likely met DSM-V criteria for PTSD at any point in the survey and have experienced high rates of trauma with 96% reporting experienced at least one type of traumatic event. Additionally, participants reported having experienced multiple types of trauma, endorsing an average of 12 different types with the majority reporting having experienced trauma both personally and vicariously, and both as a child and an adult. The majority of participants (55%) reported experiencing a

major life event (generally loss-related) throughout the course of data collection.

- Participants also reported experiencing high levels of discrimination with race as the most frequent reason. We also found that having experienced more traumatic events and more PTSD symptoms were associated with higher attendance at Can We Talk...® (CJP's signature program), the Men's Support Group, and the Mother's Drop-in Group.
- Low attenders had strong relationships between the number of traumatic events they had experienced and their PTSD symptoms, their difficulties with emotion regulation, and poorer quality of life. In high attenders, the relationships between number of traumatic events and PTSD symptoms as well as between number of traumatic events and quality of life were still present, but attenuated; but there was no relationship between number of traumatic events and emotion regulation in this group. This pattern of findings may suggest that CJP helps people cope with the effects of traumatic events on mental health.
- Participants with lower levels of social support outside of CJP rely more heavily on attendance at the Men's Support Group and Mother's Drop-In Group to meet their needs for social connection and support; whereas those with high levels of social support may be more apt to access support from community companions.
- Higher attendance at Can We Talk...[®] The Traumatic Legacy of Racism was associated with endorsement of need to stay busy, which could indicate that this program enhances a sense of meaning or purpose, or that individuals with a greater sense of purpose are drawn to attend this program offering.

It is important to note that the majority of respondents reported involvement with CJP that predated the survey period making it difficult to capture an accurate baseline assessment of wellbeing at the time of enrollment in CJP programming. However, longitudinal analyses among a subgroup of 19 participants who completed at least three surveys over the study period showed significant improvements over time in self-reported quality of life and PTSD symptoms.

Overall, participants were highly satisfied with CJP programs and identified these programs as key sources of mental health support. About half of participants also use traditional mental health services but note that the CJP is different due to the quality of staff, a rare sense of trust and safety, and shared life experiences. The results of this study also show that CJP is not a "one size fits all" program. Participants can tailor the programs they participate in, how frequently they attend, and their duration of involvement to fit their specific health needs.

We are working with CJP to develop plans for how we can best support presentations of the report to their community partners as well as developing additional avenues for collaboration in the coming year.

Click here to read the full CJP report.

Community Partner: NSMHA Freedom Trail Clinic

Title: Clozapine Point of Care Absolute Neutrophil Count Testing Device

Principal Investigator (PI): Oliver Freudenreich, MD and Carol Lim, MD, MPH

Clozapine is the most effective medication for psychosis and the only FDA-approved treatment for treatment-resistant schizophrenia, which affects approximately one-third of individuals with schizophrenia. NSMHA Freedom Trail Clinic has implemented a Point of Care (POC) fingerstick blood diagnostics device to streamline mandatory blood draws for clozapine. This fingerstick device provides a less painful, less invasive alternative to traditional blood draws and allows testing to be done in the clinic, avoiding trips to separate labs. Results are available within 3 minutes, and the device integrates with the REMS program to automatically record ANC (Absolute Neutrophil Count), simplifying the process. This approach has reduced patient and administrative burdens, improving treatment adherence and outcomes. The clinic has averaged 42 fingerstick tests per month, maintaining consistent use of over 30 tests monthly since December 2023. To date, 124 out of 177 patients currently prescribed clozapine at the Freedom Trail Clinic have utilized the device. This innovation was showcased in the following poster.

Mulligan C, Restrepo J, Lim, C, **Freudenreich O**, MacLaurin, S. "Just a prick." Fingerstick point-ofcare testing for agranulocytosis monitoring in clozapine patients. The 12th Annual MGH Public and Community Psychiatry Spring Symposium, Boston, MA. March 20, 2024.

In early 2024, with philanthropic support, we successfully implemented this device at our MGH Psychosis Program. We are now focused on assessing the device's feasibility, acceptability, and impact among clozapine patients, and gathering feedback from providers and administrators on the barriers and facilitators of its implementation. Our aim is to provide insights and serve as a resource for other psychiatric practitioners, as the device significantly eases clozapine treatment for patients, especially those with treatment-resistant schizophrenia. Data collection, patient satisfaction surveys, and provider assessments are underway to support this evaluation.

Community partners: Corrigan Mental Health Center; Fall River, MA; Pocasset Mental Health Center; Cape Cod, MA

Title: Clozapine clinic network

Principal Investigators (PIs): Oliver Freudenreich, MD and Carol Lim, MD, MPH

Starting in mid-2022, the MGH Psychosis Program established a collaborative partnership with several mental health organizations across Massachusetts, including the Corrigan Mental Health Center in Fall River, the Pocasset Mental Health Center in Cape Cod, Fuller Hospital in Attleboro, the Solomon Carter Fuller Mental Health Center, and Boston Medical Center.

Our vision is to create a statewide network of clozapine clinics within Community Behavioral Health Centers (CBHCs) across Massachusetts to facilitate the sharing of experiences and knowledge related to the safe and timely use of clozapine. Dr. Freudenreich and Dr. Lim have organized and hosted monthly MGH Clozapine Rounds for psychiatric residents and colleagues at MGH and CBHCs throughout Massachusetts. These rounds focus on discussing complex clozapine cases, aiming to provide clinicians with the expertise needed to safely prescribe clozapine and effectively manage its side effects, as well as associated psychiatric and medical comorbidities. We are also exploring further opportunities for collaboration, such as a trainee or faculty exchange program.

PROMOTION OF EQUITY, DIVERSITY, INCLUSION, BELONGING, AND ANTI-RACISM

EQUITABLE PRACTICES IN HIRING AND PROMOTION

In Y6, the COE employed 4 BIPOC individuals on staff (19% of all staff) and four BIPOC individuals in consultant roles (50% of all consultants). We promoted one BIPOC staff member – Cheryl Foo, PhD was promoted from post-doctoral clinical and research fellow to staff clinical psychologist. We continue to implement equity-based practices in advertising and interviewing for all open positions insofar as we consider distance travelled and diversity of life experience to inform hiring.

ONGOING RESEARCH/QI COLLABORATIONS

For a full description of the following projects, please see the <u>Center-Community Collaborations</u> and <u>Research</u> sections.

Ongoing Research/QI Collaborations Established as Equitable Partnerships Between the COE and Community-Based Organizations Serving People Of Color

- The report we produced in collaboration with CJP describes services delivered to a primarily Black community (71% of respondents identified as Black; 14% as multi-racial, Caribbean American, or Indigenous / Native American or Alaska Native or Native Hawaiian or Other Pacific Islander; 17% white).
- Our recent collaborative work with Bridge Over Troubled Waters includes two projects:
 - MY-BEST: A randomized controlled trial of a brief, pilot intervention conducted with youth experiencing homelessness (94% of whom identified as either Black, Multi-racial, Caribbean American, or Indigenous / Native American or Alaska Native or Native Hawaiian or Other Pacific Islander).
 - Rapid Rehousing Outcomes: A study of rapid rehousing outcomes at 1-year among a sample that was 85% Black and 34% Hispanic.

Ongoing Research/QI Designed to Understand and Promote Health Equity

- Cultural Access, Inclusivity, and Racial Equity (CAIRE)
- Community partnership with Corrigan Mental Health Center; Fall River, MA and Pocasset Mental Health Center in Cape Cod, MA designed to increase timely use of clozapine for treatment resistant schizophrenia
- Living in Families with Emotions (LIFE) training, a collaboration with the <u>NAN Project</u>, <u>Beverly</u> <u>Middle School</u>, <u>Ohrenberger School</u>, <u>Esperanza Academy</u>, <u>Children's Cove Child Advocacy</u> <u>Center</u>, Connections Family Resource Center, <u>Roxbury Boys and Girls Club</u>, and the <u>MGH</u> <u>Chelsea Healthcare Center</u>.

ANTI-RACISM TRAINING

In Y6, COE staff continued our 2-hour monthly meetings in an effort to further our understanding and heighten our awareness of how historical and current racism has resulted in inequities across a number of domains, including, but not limited to: housing, political and social power, wealth, education, treatment by the criminal legal system, media representations, and health outcomes for BIPOC individuals in the United States. We continued to use a curriculum comprising short readings, books, documentaries, and mixed media to promote group engagement in guided discussion. Topics covered in Y6 included: financing of healthcare, health inequities at the hospital level, indigenous populations, incarcerated individuals, prevention of psychiatric illness, and gun violence. For a full list of materials used, see <u>Appendix B</u>. The seminar was attended by the Center's director, a member of our leadership team, and all of our full-time staff members. Interns also joined our summer and winter seminars. Future scheduled topics include homelessness and MA legislation, immigration health, and health inequities for LGBTQIA+ people.

PSYCHOSIS CONSULTATION SERVICE

The MGH Psychosis Second Opinion Consultation Service currently consists of three senior clinicians, supported by a senior psychologist and a neuropsychologist. Senior residents are participating in consultations on an elective basis, consistent with our training mission. We offer recommendations to clinicians from a variety of backgrounds, treatment settings, and locations (including out of state and international). The bulk of consultations are questions about diagnostic clarification and optimizing management of treatment-resistant schizophrenia, including the question of clozapine treatment. While primarily an outpatient service, several consultations have been off-site, specifically to assist the staff at Bridgewater Hospital and Solomon Carter Fuller Mental Health with difficult-to-manage patients with psychosis.

We reviewed the consultation services provided over the past six years and nine months, focusing on the diagnostic and treatment recommendations made by expert consultants. A retrospective chart review of 177 patients referred to our psychosis consultation service from January 1, 2017, to October 1, 2023, was conducted to clarify psychosis diagnoses. We compared diagnoses before and after consultations and summarized the resulting treatment recommendations. The results showed that these consultations provided stage-specific treatment recommendations based on refined diagnoses, enabling timely identification and appropriate management of different stages of schizophrenia, including its severe subtype, treatment-resistant schizophrenia (TRS). Given the limited availability of second opinion consultations in psychiatry compared to other medical fields, our work highlights the value of these services in supporting clinicians to improve patient outcomes. Our findings have been published in Psychiatric Services; see the citation below.

Lim C, Donovan AL, Freudenreich S, Cather C, Maclaurin S & Freudenreich O.

Second opinions for diagnoses of psychotic disorders: Delivering stage-specific recommendations. *Psychiatric services (Washington, D.C.), appips20230623*. Advance online publication. <u>https://doi.org/10.1176/appi.ps.20230623</u>

RESEARCH PROJECTS

SELECTED MANUSCRIPTS PUBLISHED IN Y6

Psychosis across the Lifespan: Prevention, Early Intervention, and Optimizing Recovery

Early Identification and Prevention of Serious Mental Illness

- Clauss JA*, **Foo CYS*, Leonard CJ**, Dokhoylan N, **Cather C** & **Holt DJ**. (2024). Screening for psychotic experiences and psychotic disorders in general psychiatric settings: A systematic review and meta-analysis. *medRxiv*. Preprint (in press, *Harvard Review of Psychiatry*). <u>https://doi.org/10.1101/</u> 2024.04.14.24305796. *Co-first authors
- DeTore NR, Burke A, Nyer M, & **Holt DJ**. (2024). A brief resilience-enhancing intervention and loneliness in at-risk young adults: A secondary analysis of a randomized clinical trial. *JAMA Network Open*, 7(2), e2354728. https://doi.org/10.1001/jamanetworkopen.2023.54728.

Early Intervention for First-Episode Psychosis

Mueser KT, Sussman RF, DeTore NR, & McGurk SR. (2023). The impact of early intervention for first episode psychosis on cognitive functioning. *Schizophrenia Research, 260*, 132–139. <u>https://doi.org/10.1016/j.schres.2023.07.021</u>

Optimizing Recovery for Schizophrenia

- Blajeski S, Smith MJ, Harrington M, Johnson J, Ross B, Weaver A, Razzano LA, Jordan N, Oulvey EA, Mueser KT, McGurk SR, Bell MD, & Smith JD (2024). A mixed-method implementation evaluation of Virtual Reality Job Interview Training for individuals with serious mental illness in IPS supported employment. *Psychiatr Serv*, 75(3):228-236. <u>https://doi.org/10.1176/appi.ps.20230023</u>
- Fulford D & **Holt DJ** (2023). Social withdrawal, loneliness, and health in schizophrenia: Psychological and neural mechanisms. *Schizophrenia Bulletin*, *49*(5), 1138-1149. <u>https://doi.org/10.1093/schbul/sbad099</u>.
- Lim C & **Donovan AL**. (2024). Treatment paradigms for treatment-resistant schizophrenia. Lancet Psychiatry, 11:489-488. <u>https://doi.org/10.1016/</u> <u>s2215-0366(24)00173-1</u>
- Lim C, Donovan A, Freudenreich S, Cather C, Maclaurin S & Freudenreich O. (2024). Second opinions in psychotic disorders: Delivering stage-specific recommendations. *Psychiatric Services*, appips20230623. Advance online publication. <u>https://doi.org/10.1176/appi.ps.20230623</u>

Advancing Interventions for Substance Use Disorder

Reducing Medical Morbidity in People with Serious Mental Illness

Daumit GL, Evins AE, Cather C, et al. (2023). Effect of a tobacco cessation

intervention incorporating weight management for adults with serious mental illness: A randomized clinical trial. *JAMA Psychiatry*, *80*(9), 895–904. <u>https://doi.org/10.1001/jamapsychiatry.2023.1691</u>

- **Foo CYS**, Potter K, Nielsen L, Rohila A, Maravic MC, Schnitzer K, Pachas GN, Levy DE, Reyering S, Thorndike AN, **Cather C, Evins AE**. Implementation of community health worker support for tobacco cessation: A mixed-methods study. *medRxiv*, 2024.01.26.24301835. In press in *Psychiatric Services*. <u>https://doi.org/10.1101/2024.01.26.24301835</u>
- Streck JM, Potter K, Pachas GN, **Cather C**, Nielsen L & **Evins AE**. (2024). Alternative combusted tobacco product and multiple tobacco product use among individuals with serious mental illness enrolled in a large pragmatic randomized controlled trial. *Addict Behav*, *148*, 107844. <u>https:// doi.org/10.1016/j.addbeh.2023.107844</u>
- Meza BPL, Pollack CE, Tilchin C, Jennings JM, Latkin CA, **Cather C**, Dickerson F, **Evins AE**, Wang NY, Daumit GL, Yuan C & Gudzune KA. (2024). Social networks of people with serious mental illness who smoke: Potential role in a smoking cessation intervention. Journal of Mental Health, 1–10. https://doi.org/10.1080/09638237.2024.2332807

Adolescent Substance Use

- Schuster RM, Cather C, Pachas GN, Nielsen L, Iroegbulem V, Dufour J, Potter K, Levy S, Gray KM & Evins AE (2023). A randomized controlled trial of varenicline and brief behavioral counseling delivered by lay counselors for adolescent vaping cessation: Study protocol. *Frontiers in Psychiatry*, 14, 1083791. https://doi.org/10.3389/fpsyt.2023.1083791
- Winickoff J, **Evins AE** & Levy S. (2024). Vaping in youth. *JAMA* , *332*(9), 749-750. https://doi.org/10.1001/jama.2024.13403
- Liu J, Knoll SJ, Pascale MP, Gray CA, Bodolay A, Potter KW, Gilman J, **Evins AE**, & Schuster RM. (2024). Intention to quit or reduce e-cigarettes, cannabis, and their co-use among a school-based sample of adolescents. *Addictive Behaviors*, *157*, 108101. <u>https://doi.org/10.1016/j.addbeh.2024.108101</u>
- Tervo-Clemmens B, Bentley K, Smoller JW, Nock M, **Evins AE**, Gilman JM & Schuster RM. (2024). Substance use is dose dependently associated with suicidal thoughts and psychiatric comorbidities. *JAMA Pediatr*, *178*(3):310-313. https://doi.org/10.1001/jamapediatrics.2023.6263

Substance Use Disorder Treatment for LGBTQIA+ People

McDowell MJ, King DS, Gitin S, Miller AS, Batchelder AW, Busch AB, Greenfield SF, Huskamp HA & **Keuroghlian AS.** (2023). Alcohol use disorder treatment in sexually and gender diverse patients. J Clin Psychiatry 84(5). <u>https://doi.org/10.4088/jcp.23m14812</u>

Improving Health Equity for Marginalized Communities

Sexual and Gender Diverse Populations: Influencing Clinical Practice and Training

Liu M, Patel VR, Reisner SL & **Keuroghlian AS**. (2024). Health status and mental health of transgender and gender-diverse adults. *JAMA Intern Med*. <u>https://doi.org/10.1001/jamainternmed.2024.2544</u>

Sandhu S, Liu M & **Keuroghlian AS**. (2024). Strategies for insurers to promote sexual and gender minority health. *JAMA Health Forum*, *5*(4), e240439. https://doi.org/10.1001/jamahealthforum.2024.0439

Improving Training in LGBTQIA+ Affirming Care

- Mayer K, Peretti M, McBurnie MA, King D, Smith N, Crawford P, Loo S, Sigal M, Gillepsie S, Davis J, Cahill S, Grasso C & **Keuroghlian AS**. (2024). Training health center staff in the provision of culturally responsive care for sexual and gender minority patients: Results of a randomized controlled trial. *LGBT Health*, *11*(2), 131-142. <u>https://doi.org/10.1089/lgbt.2022.0322</u>
- Srinivasan S, Goldhammer H, Charlton BM, McKenney T & **Keuroghlian AS**. (2024). Addressing gaps in access to LGBTQIA+ health education resources: A novel e-learning platform. *J Med Educ Curric Dev*, *11*, 23821205241262212. https://doi.org/10.1177/23821205241262212

HIV Prevention Through Practice Transformation

- Chinbunchorn T, Mayer KH, Campbell J, Alm DK, Krakower D, Marcus JL, Grasso C & **Keuroghlian AS**. HIV pre-exposure prophylaxis provision by U.S. health centers in 2021. *AIDS (London, England)*, 10.1097/ QAD.000000000003774. Advance online publication. <u>https://doi.org/10.1097/QAD.0000000003774</u>
- Ard KL, Bruno J, Uzoeghelu U, Lambert C, Khan T, Davis JA, Mayer KH & Keuroghlian AS. (2023). PrEP ECHO: A national interdisciplinary telementoring program for HIV prevention through practice transformation. *AIDS Education and Prevention*, 35(3), 247-253. <u>https://doi.org/10.1521/aeap.2023.35.3.247</u>
- Keuroghlian AS, Marc L, Goldhammer H, Massaquoi M, Downes A, Stango J, Bryant H, Cahill S, Perez AC, Head JM, Mayer KH, Myers J, Rebchook GM, Bourdeau B, Psihopaidas D, Chavis NS & Cohen SM. (2024). A peer-topeer collaborative learning approach for the implementation of evidenceinformed interventions to improve HIV-related health outcomes. *AIDS* and Behavior. Online ahead of print. <u>https://doi.org/10.1007/s10461-023-04260-4</u>

Individuals Involved in the Criminal Legal System

- Scanlon F, Morgan RD & Aceves D. (2024). Implementing a treatment for people with serious mental illness in jail: A mixed-methods study of stakeholder perspectives on feasibility and acceptability. *Administration and Policy in Mental Health and Mental Health Services Research*. <u>https://doi.org/10.1007/s10488-024-01380-4</u>
- Lester M, **Scanlon F** & Batastini A. (2024). Doubling down on dosage: exploring the interplay between dosage effects, antisocial traits, treatment attitudes, and recidivism-related therapy outcomes. *Journal of Criminal Psychology*. https://doi.org/10.1108/JCP-01-2024-0005

RESEARCH PROJECTS IN PROCESS

Title: Medical marijuana, pain, and opioid use in patients with chronic non-cancer pain **Principal Investigator (PI):** Jodi Gilman, PhD; A. Eden Evins, MD, MPH **Funding:** NIH-NIDA (5R01DA051540-03) **Time Frame:** 09/2021-06/2025

Approximately 25% of adults experiencing chronic, non-cancer pain are treated with chronic prescription opioids, despite limited long-term efficacy data and dose-related risks for opioid use disorder and overdose. There are also many reports of people using cannabis to manage chronic pain or replace or reduce opioids. We developed a randomized, pragmatic trial to test whether cannabis use is associated with reduced pain and reduced opioid dose when added to a behavioral pain management intervention.

All participants are offered a weekly, 24-session Prescription Opioid Taper Support (POTS) group behavioral pain management intervention and at baseline, express a future interest in using cannabis to help manage pain. The POTS intervention uses principles of cognitive behavioral therapy, motivational interviewing strategies, and strategies to invoke the relaxation response. Participants are randomized 1:1 to either begin using cannabis products of their choice without delay, or to wait 24 weeks before beginning to use cannabis.

Participants complete baseline, 4-, 8-, 12-, 16-, 20-, and 24-week assessments to evaluate prescription opioid dose change (co-primary outcome), quality of life, depression, anxiety, and OUD and CUD symptoms (secondary outcomes). They also complete daily surveys to evaluate pain intensity and interference (co-primary outcome) and self-reported opioid dose (secondary outcome).

To date, 82 participants have completed baseline assessments and 57 have completed six-month assessments. Data analysis is anticipated to begin in 2025.

Title: Randomized controlled trial of varenicline for cessation of nicotine vaping in adolescent non-smokers

PIs: Eden Evins, MD, MPH, Randi Schuster, PhD **Funding:** NIH/NIDA 1R01DA052583-01A1 **Time Frame:** 06/2022 – 07/2024

This project aimed to test the hypothesis that varenicline added to behavioral and texting support will be well tolerated and improve vaping cessation rates over behavioral treatment and texting support and over monitoring only in nicotine dependent adolescents who vape, do not smoke regularly, and are willing to try treatment to stop vaping. Varenicline efficacy and tolerability with behavioral and texting support will be evaluated, as will group differences in consumption of alcohol, combusted tobacco, cannabis, and non-medical prescription drugs during the treatment and follow-up periods.

The recruitment goal for this study was to enroll 300 participants (and randomize 240) who met the following criteria: (1) Were between the ages of 16 and 25, (2) Were self-reported daily or near-daily nicotine vapers over the past three months with a bio-verified positive cotinine result at enrollment, (3) Reported signs of nicotine dependence, (4) Were willing to try varenicline to stop vaping, (5) Demonstrated an ability to understand study procedures and can read and write in English, (6) Were competent and willing to provide informed consent (or have parents who demonstrate this ability if subject is younger than 18), (7) Had a parent or legal guardian who is able and willing to provide written informed consent (if the subject is under 18 years old), and (8)

For female participants, had a negative pregnancy test at enrollment as well as agreement to use effective contraception during the study.

We met our enrollment target of 300 adolescents with tobacco use disorder. Participants were randomized into the following: 1) varenicline standard titration, 2) placebo for 12 weeks, or 3) 12 weekly behavioral counseling sessions with or without a referral to TIQ text messaging support. Most participants completed the trial. Overall, varenicline, in combination with behavioral counseling for vaping cessation delivered by lay counselors, significantly improved vaping abstinence over behavioral counseling alone and text support. The manuscript is in preparation.

Title: Associations between recreational cannabis retail sales and THC detected in psychiatric emergency department presentations

PI: Cheryl Y. S. Foo, PhD **Co-I:** Abigail Wright PhD Kim Musser PhD

Co-I: Abigail Wright, PhD, Kim Mueser, PhD, Eden Evins, MD, Sharon Levy, MD, Abigail Donovan, MD, Corinne Cather, PhD **Funding:** MGH COE

Time Frame: January 2020 – Present

Cannabis policy, including the legalization and commercial expansion of recreational cannabis, is rapidly evolving with mixed evidence on how it affects adolescents and young adults. Massachusetts (MA) voted to legalize cannabis in November 2016, with the first dispensaries opening in November 2018. Population-level surveys in the US and Canada find no evidence that cannabis legalization or commercialization increased the rate of adolescent self-reported cannabis use. Those with existing or emerging psychiatric illnesses constitute a particularly high-risk group who are disproportionately impacted by substance use. Using data collated from the MGH emergency department in APS using the Research Patient Data Registry (RPDR) database, we aimed to examine age-varying changes in cannabis use, detected by urine toxicology screens, after the legalization and commercialization of recreational cannabis in Massachusetts.

We completed data analyses and are currently preparing the manuscript. Our findings suggest that expanding recreational cannabis availability and accessibility may be disproportionately affecting adolescents with psychiatric vulnerabilities, and deserves attention given known risks of early and heavy cannabis use on developing and worsening progression of psychotic disorders and other serious mental illnesses.

Title: Mental Contrasting with Implementation Intentions (MCII) as a single-session stand-alone intervention to increase exercise in persons with mental health challenges **Principal Investigator (PI):** Corinne Cather, PhD & Hannah Brown, MD **Funding:** MGH COE **Time Frame:** 1/2020 - Present

Individuals with mental health challenges face a shortened life expectancy, largely due to preventable medical conditions which exercise may improve. Thus, the COE, in partnership with BMC, worked on two studies aimed at improving physical health among individuals with serious mental health challenges.

The MCII study aims to evaluate both the feasibility and effect of the MCII intervention on exercise behavior. This year we finished recruiting at MGH (n=10) and had eight participants complete the study at BMC (n=8). Data analysis is now in progress.

Title: Virtual group fitness and nutrition intervention: Testing the feasibility and effectiveness of an intervention for individuals with Schizophrenia Spectrum Illnesses **Principal Investigator (PI):** Corinne Cather, PhD, Hannah Brown, MD **Funding:** MGH COE

Time Frame: 1/2020 - Present

The COE began another collaborative project with BMC's Drs. Abigail Donovan, MD, and Hannah Brown, MD, which adapts our in-person fitness and nutrition intervention to a virtual format. The present study has three primary aims:

- 1. To assess participants' change in physical activity, physiological measures, and psychological well-being over the course of the 11-week intervention
- 2. To assess tolerability and feasibility of this intervention through a participant satisfaction questionnaire and attendance rates
- 3. To explore the effects of exercise on functioning and quality of life

BMC colleagues are analyzing these data and taking the lead on the manuscript.

Title: MAPNET fidelity to the Coordinated Specialty Care and Individual Placement and Support models

PI: Nicole DeTore, PhD **Co-Mentor:** Daphne Holt, MD, PhD, Kim Mueser, PhD **Funding:** NIH-NIMH (5P50MH115846-04)

To better understand how adherence to the different components of the Coordinated Specialty Care model, as well to the Supported Employment and Education component specifically, in Massachusetts First Episode Psychosis (FEP) programs compares to adherence in other FEP sites throughout the country, this study conducted fidelity assessments in conjunction with MAPNET, utilizing standardized fidelity scales across 11 MAPNET FEP sites.

This study had two main goals, 1) to conduct fidelity assessments across 11 FEP sites, and 2) to examine the outcomes of these sites based on their fidelity ratings. Aim 1 was completed in as of 12/2023, when all fidelity assessments were completed (11 sites total). These assessments include in-person site visits, observation of one team meeting, interviews with staff members including: the team leader, prescriber, individual therapist, group therapist, peer provider, and employment and education specialist.

Aim 2 is now underway. In 8/2024, we obtained necessary site outcome data from MAPNET, and are currently working on data analysis and preparation of the primary manuscript. We are hoping to submit to a special issue due 10/30/2024.

In 2024, we had two posters accepted, one to a regional conference and one at a national conference:

- Eberlin ES, Johnson K, Stepansky M, Addington DE, Onger D, **Holt DJ, Mueser KT** & DeTore NR. (2023). Evaluating fidelity of coordinated specialty care in first episode psychosis clinics across Massachusetts. Poster presented at the 4th Annual Mass-STEP Conference; Boston, MA.
- Eberlin ES, de Marneffe FB, Johnson KA, Stepansky M, Onger D, **Holt DJ, Mueser KT,** Addington DE, & DeTore NR. (2024). Fidelity to the First-Episode Psychosis Coordinated Specialty Care Model: Massachusetts sites compared to the overall United States. Poster presentation accepted at the Association for Behavioral and Cognitive Therapies; Philadelphia, PA.

Title: Artificial intelligence-enabled mental health assessments of healthcare providers **Co-PIs:** Daphne Holt, MD, PhD, Nicole DeTore, PhD **Funding:** Department of Public Health

The goal of this study was to develop a novel artificial intelligence (AI) powered mental health assessment for healthcare workers, using virtual avatars. This AI-driven avatar is used to assess healthcare workers for a range of mental health conditions, and their severity. It also provides psychoeducation and links to available resources. We assessed the feasibility and acceptability of this artificial-intelligence program for healthcare workers.

The finalized version of the BeCalm app was completed on 5/10/2023 and began recruiting participants for the validation study on 5/23/3024. We recruited 55 participants and had 38 completers of the study. We found that the BeCalm application had moderate to strong convergent validity with other forms of mental health assessments (both clinical interview and self-report measures). BeCalm was also found to be highly feasible and acceptable, with 29 of 38 endorsing that the application was therapeutic in some way and that they found the avatar approachable and warm.

In 2024, we had one poster accepted to a national conference:

Dokholyan KN, Eberlin ES, Balogun-Mwangi N, de Marneffe FB, Rizzo AS, **Holt DJ** & DeTore NR. (2024). An artificial intelligence human avatar based mental health assessment: A validation study in healthcare workers. Poster presentation accepted at the Association for Behavioral and Cognitive Therapies; Philadelphia, PA.

We published this work, which was accepted for publication on 7/11/2024:

DeTore NR, Balogun-Mwangi O, Eberlin ES, Dokholyan KN, Rizzo AS & **Holt DJ**. An artificial intelligence-based virtual human avatar application to assess the mental health of healthcare professionals: A validation study. *Journal of Medical Extended Reality*. In Press.

Title: Interrupting developmental pathways to schizophrenia: Protecting youth at risk for cannabis use and psychosis

PI: Daphne Holt, MD, PhD and Randi Schuster, PhD **Funding:** MGH McCance Center for Brain Health

The goal of this project is to test the acceptability and feasibility of an eight-session, group-based, resilience-promoting behavioral intervention called Living In Families with Emotions (LIFE), for adolescents with subclinical psychotic experiences.

In Y6, we have been conducting data analysis on the effectiveness of this intervention in reducing mental health symptoms among the 31 adolescent participants. Preliminary analyses indicate that the intervention was associated with significant reductions in suicidality, depression and psychotic symptoms in these adolescents. Data analysis on the 15 pre- and post-intervention magnetic resonance imaging scans is currently in process. In Y6, we plan to submit a manuscript reporting the overall findings and apply for an NIH funded R01 grant to extend this work.

Title: Neurobehavioral mechanisms of isolation and loneliness in severe mental illness

Co-PIs: Daphne Holt, MD, PhD, Daniel Fulford, PhD

Funding: NIH (5R01MH127265-04)

This 5-year project will test a model of loneliness and isolation in serious mental illness using ecological momentary assessments, neuroimaging, and cognitive neuroscience techniques, using a longitudinal design. To date, we have recruited a total of 63 subjects consisting of 35 individuals without a mental illness and 28 diagnosed with a serious mental illness.

Title: Stable and dynamic neurobehavioral phenotypes of social isolation and loneliness in serious mental illness

Co-PIs: Daphne Holt, MD, PhD, Daniel Fulford, PhD **Funding:** NIH (1R01MH125426-03)

This project (submitted in response to RFA PAR19-384) extends R01MG127265 by testing whether the objective correlates of loneliness predict abnormalities in cardiometabolic health in individuals with serious mental illness.

This study is also in Y4 and has been combined with the Neurobehavioral Mechanisms of Isolation and Loneliness in Severe Mental Illness study to recruit and pair the assessments for participants. Therefore, this study has also recruited a total of 63 subjects.

Title: A wearable acoustic sensing-based mHealth system for monitoring social dysfunction in schizophrenia

Co-PIs: Daphne Holt, MD, PhD and Jie Xiong, PhD **Funding:** NIH (R01MH122371-04)

The goal of this four-year pilot project is to develop and validate a wearable sensing device based on novel acoustic technology that will continuously monitor physical proximity to others, providing an objective indicator of social spacing and functioning in schizophrenia.

In this study, we have: 1) developed the wearable sensor and cover; 2) developed an EMA data collection program 3) internally tested both the wearable sensor and EMA data collection program; and 4) recruited and completed the assessments for 13 healthy control participants and 4 individuals diagnosed with a serious mental illness. This study has received a no-cost extension from the NIH, and we plan to continue participant recruitment throughout the following year, prioritizing SMI populations.

Title: Patient and family service engagement in first-episode psychosis coordinated specialty care programs in Massachusetts PI: Cheryl Y. S. Foo, PhD Co-I: Corinne Cather, PhD, Kim Mueser, PhD, Dost Ongur, MD, PhD, & Lisa Dixon, MD, MPH Funding: NIH-NIMH (2P50MH115846-05) Time Frame: July 2023 – Present

Poor treatment engagement among individuals with first-episode psychosis (FEP) and their families adversely impacts the effectiveness of early intervention services and puts patients at greater risk for relapse. Up to 50% of FEP patients disengage before completion of recommended two years of treatment and only 23-48% of families participate in FEP treatment in the United States. Funded by McLean's Hospital Laboratory for Early Psychosis (LEAP) grant, an NIMH ALACRITY Center, this mixed methods pilot study is the first to systematically examine rates and determinants of patient retention and family service engagement using longitudinal patient data collected from 9 FEP coordinated specialty care (CSC) programs in Massachusetts (MAPNET). In determining predictors of service engagement, this study has a unique and critical focus on 1) family factors influencing treatment adherence and 2) provider- and program-level factors affecting family service engagement. Additionally, through surveys and interviews with providers and programs, we also aim to identify engagement strategies associated with high vs. low rates of patient and family service engagement. Dr. Foo developed a survey on provider attitudes towards family involvement for FEP and adapting a program-level survey on family service engagement; gained IRB approval for collection of program and provider-level data; conducted preliminary analyses on rates of service

engagement from LEAP/MAPNET data; and recruited a full-time clinical research coordinator. In Y6, we completed data collection of program-level survey and interview data from 9 FEP teams (N=45 interviewees) and data on provider attitudes and training needs from over 50 FEP providers. We are completing analyses. Results from this study will inform program-level modifications to CSC services and the development of practice recommendations for improving patient and family engagement in FEP treatment in Massachusetts' CSC programs.

Title: Effective care transition interventions for individuals with serious mental illness and their families: A systematic review and meta-analysis **PI:** Cheryl Y. S. Foo, PhD **Co-I:** Corinne Cather, PhD, Brandon A. Gaudiano, PhD **Funding:** MGH COE **Time Frame:** July 2023 – Present

Individuals with serious mental illness face the highest risk for relapse, suicide, and symptom exacerbation following discharge from inpatient psychiatric care, and yet the care transition period is when they receive the least amount of support. One in four Medicaid patients hospitalized for schizophrenia spectrum disorders are readmitted 30 days following discharge, and about two-thirds of first-episode psychosis patients do not attend their first post-discharge outpatient appointment. The objectives of this systematic review and meta-analysis are to: 1) describe and characterize the types of care transition interventions for individuals with serious mental illness (SMI) following discharge from a psychiatric hospitalization to outpatient mental health/community care services that have been evaluated in controlled studies; 2) assess the effectiveness of these care transition interventions in improving clinical (relapse prevention, clinical symptoms, functioning) and continuity of care (treatment initiation, engagement, and adherence) outcomes for patients; and 3) propose recommendations for scalable and effective care transition interventions that can be implemented for this population post-hospitalization.

Dr. Foo has registered the PROSPERO protocol for a systematic review. At present, Dr. Foo and a team of research assistants/CRCs have identified 929 studies for the initial title and abstract screening. The team has completed title and abstract screening, full-text review, and data extraction from the papers included in the review. We are beginning quality assessment ratings of the papers to be included.

Title: Characterizing family involvement during index psychiatric hospitalization for first-episode psychosis **Co-PI:** Cheryl Y. S. Foo, PhD, Corinne Cather, PhD, Emily Yang, & Julie McCarthy, PhD **Funding:** MGH COE **Time Frame:** April 2023 – Present

Despite the robust evidence supporting family support and psychoeducation in schizophrenia treatment, the role of family engagement during and following acute treatment on engagement in CSC treatment has been under-studied. A retrospective chart review of 179 psychiatric inpatients from New York found that patients with family involvement in discharge planning had three times higher odds of attending their outpatient appointments within seven days of discharge than patients without family involvement. This finding suggests that family engagement can potentiate timely treatment initiation post-hospitalization and reduce duration of untreated psychosis. In collaboration with a team from McLean Hospital, we aim to 1) characterize family involvement during index hospitalization for first-episode psychosis clients at MGH First Episode

for Psychosis Program (FEPP) and McLean OnTrack using electronic medical record data, and 2) examine associations between family involvement during hospitalization and engagement delay (operationalized as time from hospital discharge to date of first attended appointment at FEPP or OnTrack). In Y6, data were extracted from MGB Research Patient Data Registry (RPDR) and Electronic Data Warehouse (EDW). Data cleaning is currently in progress.

Title: A real-world approach to screening for attenuated and early psychotic symptoms using the MGH Psychosis Clinical and Research Program (PCRP) referral database **Co-PI:** Jacqueline A. Clauss, MD, PhD & Cheryl Y. S. Foo, PhD **Co-I:** Corinne Cather, PhD & Daphne Holt, MD, PhD **Funding:** MGH PCRP and MGH COE **Time Frame:** September 2022 – Present

MGH Psychosis Clinical and Research Program (PCRP) offers evaluation and treatment for spectrum of psychosis-risk syndrome and psychotic disorders over the lifespan. Services consist of Resilience Evaluation-Social Emotional Training (RE-SET) program for youths with clinical high risk for psychosis (CHR-P), the First-Episode and Early Psychosis Program (FEPP) for young adults experiencing their first-episode of psychosis, and the Recovery and Ongoing Care Clinic (ROCC) for people with ongoing psychotic illness. Family members, clinical providers, or patients self-referring to PCRP complete a screening form assessing patient's lifetime behaviors, psychiatric diagnosis, psychiatric service use, and psychotic symptoms using the Adolescent Psychotic-like Symptom Screener (APSS). To determine eligibility for RE-SET, eligible patients and their caregivers additionally complete a battery of measures of symptoms of psychosis, anxiety, attention, and mood; traumatic experiences; social functioning; caregiver burden; and developmental history, and may complete the Structured Interview for Psychosis-Risk Syndromes (SIPS), a gold-standard assessment for CHR-P.

Drs. Foo and Clauss are conducting a series of studies using this database of referral and clinical measures to examine 1) predictive ability and incremental validity of clinical risk factors at referral to detect CHR-P status and 2) predictive ability of APSS In identifying CHR-P or primary psychotic disorder. The team is preparing a manuscript on predictors of clinical high risk for psychosis at referral for submission to Early Intervention in Psychiatry/Schizophrenia Bulletin's Special Issue.

Drs. Foo and Clauss completed a systematic review on psychosis screening in general mental health settings, which has been accepted in the Harvard Review of Psychiatry's special issue on Preventative Psychiatry (currently under review):

Clauss JA*, **Foo CYS***, **Leonard CJ**, Dokhoylan N, **Cather C**+, **Holt DJ**+. Screening for psychotic experiences and psychotic disorders in general psychiatric settings: A systematic review and meta-analysis. medRxiv 2024.04.14.24305796. Accepted in *Harvard Review of Psychiatry*. *Contributed to work equally. * Co-senior authors.

Drs. Holt, Cather, and Foo, with endorsement from MGH pediatric psychiatry and team-based outpatient psychiatry clinics' leadership, have also proposed to MGB Patient-Reported Outcome Measures (PROMs) program service to include a two-item psychosis screen.

Title: Implementation of community health worker support for tobacco cessation: A mixed methods process evaluation **PI:** Cheryl Y. S. Foo, PhD

Co-I: Kevin Potter, PhD, Corinne Cather, PhD, Anne Thorndike, MD, MPH, & A. Eden Evins, MD, MPH

Funding: MGH COE and PCORI Time Frame: September 2022 – Present

Community health worker (CHW) interventions can address the treatment gap for evidencebased tobacco cessation care among persons with serious mental illness (SMI), for whom there are disproportionately high rates of tobacco use disorder (TUD) and risk of smoking-related illnesses. In the parent study, Dr. Eden Evins and team showed that CHW support in addition to provider education (PE) improved the provision and increased efficacy of TUD pharmacotherapy in primary care settings. In this mixed methods process evaluation of the randomized controlled trial, we first examined the relationships between dosage of CHW intervention (i.e., frequency of CHW visits, smoking cessation (SC) groups, CHW-attended primary care visits, and average duration of CHW visits) and use of TUD pharmacotherapy and tobacco abstinence among participants in the intervention arm. We also assessed barriers and facilitators to implementation of the CHW intervention from patient, CHW, and primary care physician (PCP) perspectives.

We found that participants who had more contact with CHWs—whether via home/community visits, group counseling sessions, or accompanied PCP visits—were much more likely to quit smoking after two years compared with adults who had less CHW engagement. Interviews with patients, PCPs and CHWs also revealed that CHWs were instrumental in breaking down structural barriers to treatment by helping to schedule appointments, provide transport, and ensuring insurance was up to date. These findings are in press in Psychiatric Services:

Foo CYS, Potter K, Nielsen L, Rohila A, Maravic MC, Schnitzer K, Pachas GN, Levy DE, Reyering S, Thorndike AN*, **Cather C*, Evins AE***. Implementation of community health worker support for tobacco cessation: A mixed-methods study. *medRxiv*, 2024.01.26.24301835. In press in *Psychiatric Services*. <u>https://doi.org/10.1101/2024.01.26.24301835</u> *Co-senior authors.

Given the demonstrated effectiveness of CHW support for tobacco cessation, Drs. Evins, Streck, and Cather submitted two R01s (NIDA resubmission; NIMH under review) to extend study of CHW deployment for behavioral health within Medicaid-funded care structures. The proposed studies will test CHW support delivered by existing community behavioral health staff for Medicaid-eligible adults with any SMI, and determine if CHW effectiveness on tobacco outcomes is mediated by remediation of adverse social determinants of health. If effective, this intervention has the potential to be widely disseminated in existing, Medicaid funded systems of behavioral health care and transformative in overcoming adverse SDOH to improve the delivery of first-line, evidence-based medical care, reducing the enormous mortality disparity faced by people with SMI.

Title: Prospective relationships between social functioning and insight in recovery after a first episode of psychosis PI: Cheryl Y. S. Foo, PhD Co-I: Kim Mueser, PhD Funding: MGH COE Time Frame: September 2022 – Present

The Recovery After an Initial Schizophrenia Early Treatment Program (RAISE-ETP) study is the largest randomized controlled trial conducted in the United States that demonstrates the efficacy of specialized coordinated specialty care services for first episode psychosis. RAISE-ETP specifically evaluated NAVIGATE, a comprehensive treatment program for first-episode psychosis, compared to usual care/community care (CC) over two years. Dr. Foo is completing three secondary analyses of the RAISE-ETP study, examining: 1) dynamic interrelationships between social functioning and insight in NAVIGATE vs. CC groups using path analyses; 2) predictors of treatment disengagement

in NAVIGATE vs. CC groups using survival analysis; and 3) concordance of parent vs. self/clinicianreport on patient's occupational functioning. The manuscript is currently in process.

Title: Climate anxiety in people with serious mental illness **PI:** Oliver Freudenreich, MD **Funding:** MGH COE and MGH PCRP **Time Frame:** June 2022-present

Starting mid-2022, the MGH Psychosis Program began taking actions to mitigate the negative impact of climate change on SMI patients. People with SMI are particularly vulnerable to heat-related mortality, but little is known about how they perceive climate change and how they prepare for extreme heat. We approached this issue from three dimensions – 1) a descriptive study to characterize the psychological impact of climate change on SMI patients, 2) provider education, 3) patient education.

Dr. Freudenreich and Dr. Lim are conducting a descriptive study to examine the prevalence and severity of climate anxiety among adults with schizophrenia spectrum disorders. Between March and July 2024, we recruited 108 participants from the MGH Psychosis Program and the Freedom Trail Clinic. Participants completed a semi-structured interview on climate change, using a survey built in REDCap. The survey included demographic questions, the Lancet's Global Use Survey, Clayton and Karaszia's Climate Anxiety Scale, and a comment box for qualitative responses. (The outline of this study was presented in the poster below.) This survey aimed to evaluate the emotional, cognitive, and functional impacts of climate change on this population. We are currently analyzing climate-related concerns and distress levels across various demographic groups using SPSS software, and we expect to publish our findings to advocate for our vulnerable patients:

Lim C, Freudenreich S, Tam A, MacLaurin S, McKowen J & **Freudenreich O**. Assessing the perception and experience of climate change in people with schizophrenia. The 12th Annual MGH Public and Community Psychiatry Spring Symposium, Boston, MA. March 20, 2024.

In addition, Dr. Oliver Freudenreich has given multiple seminars at a national level on Climate Change and Mental Health, discussing climate actions that clinicians can take to minimize the negative impact of extreme temperatures on their patients.

During the summers of 2023 and 2024, clinicians at the MGH Psychosis Clinical Research Program and the Freedom Trail Clinic worked to prevent heat-related illnesses among their patients through in-service education led by summer interns. The interns developed and distributed infographic flyers across the clinics. Clinicians were encouraged to provide psychoeducation on climate change and its impact on mental and physical health during outpatient visits. Dr. Lim and the interns also conducted outreach in the Greater Boston area, delivering educational sessions at shelters, group homes, mental health community clinics, and clubhouses, as well as at inpatient units at McLean SouthEast and Franciscan Children's Hospital. Additionally, they extended their efforts beyond state lines to New Hampshire, providing educational sessions at the New Hampshire Hospital to promote climate-resilient behaviors.

NEW RESEARCH/QI PROJECTS

Title: Changing Lives and Changing Outcomes-9 at Worcester Recovery Center and Hospital: Implementing and evaluating a mental illness and criminal risk focused intervention for people with serious mental illness

PI: Faith Scanlon, PhD **Funding:** MGH COE

Time Frame: August 2024 – September 2025

People with serious mental illness (depression, bipolar, and schizophrenia spectrum disorders) have high rates of repeated criminal legal involvement and psychiatric hospitalizations. Longstanding research shows that in addition to treating clients' symptoms of mental illness, targeting risk factors for legal involvement can help reduce their chances of future incarcerations. Because hospitals are becoming increasingly forensic, treatment programs that address both mental illness and risk factors for legal involvement may be especially helpful in a state hospital setting, like Worcester Recovery Center and Hospital (WRCH). In this treatment study, we will implement and evaluate an adjunctive 9-session intervention, Changing Lives and Changing Outcomes-9 (CLCO-9), for patients at WRCH. This program is designed to help people with serious mental illness with current or previous criminal legal involvement. Specifically, we will evaluate the implementation of the group intervention at WRCH, the effectiveness of the intervention on improving patient's self-reported and behavioral indicators of mental health and risk factors for legal involvement; and explore changes in WRCH clinicians' knowledge and attitudes about treating risk factors for criminal legal involvement. Our projected sample size is about 20 treatment completers.

Title: Gun violence and prevention QI curriculum

Group Members: Alex Keuroghlian, MD, Areeba Ali, Suzanne Bird, MD, Cori Cather, PhD, Peter Masiakos, MD, Meaghan Rudolph, RN, Hemal Sampat, MD, Nhi-Ha Trinh, MD, MPH, Janet Wozniak, MD, Daniel Harris, MD, Katherine Koh, MD, MSC, Chana Sacks, MD, MPH **Time Frame:** July 2024 –

This year, in collaboration with members of the MGH Division of Public and Community Psychiatry (DPCP) and the MGH Center for Gun Violence and Prevention, we have joined a working group convened by the DPCP to address this important issue. Our plans for 2025 include the development of a asynchronous learning module that will be part of the mandatory training curriculum for all MGB Psychiatry staff and will address gun safety as well as sharing resources with our clinicians around local efforts to decrease gun violence, such as the <u>Transforming Narratives of Gun Violence</u> Initiative which is facilitated by the Engagement Lab at Emerson College in partnership with the Louis D. Brown Peace Institute, Massachusetts General Hospital's Gun Violence Prevention Center, and a number of grassroots organizations.



GRANTS FUNDED

Title: Remote, Young Adult Lay-Counselor Delivered Behavioral and Digital Intervention for Youth to Promote Vaping Cessation and Prevent Escalation of Tobacco Use

Major Goals: We propose to test whether the QuitVaping intervention helps younger adolescents, ages 14-18 to quit vaping nicotine, and, among those who do not quit, whether the QuitVaping intervention reduces escalation to daily use and dependence over a 3-month follow up period.

PI: Eden Evins, Randi Schuster

Additional COE Staff: Cori Cather

Source of Support: NIH-NCI

Start and End Date: 09/2024-08/2029

Total Award Amount (including Indirect Costs): \$4,233,466

Status: Active

Title: Family Access to Clinical High Risk for Psychosis and Substance Use Supports **Major Goals:** The project proposes to adapt and pilot Community Reinforcement and Family Training to prevent development and progression of substance use disorders in young persons with clinical high-risk for psychosis and co-occurring substance use.

PI: Julie McCarthy (McLean Hospital)

Site PI: Cheryl Foo

Source of Support: Klingenstein Third Generation Foundation Transformation of Mental Health Care Program Award

Start and End Date: Q3 2024 to Q3 2026

Budget: \$200,000

Status: Not funded by the Klingenstein Award, though the project subsequently obtained funding through a DMH contract awarded to MGH RE-SET clinic

GRANTS UNDER REVIEW

Title: Impact of Implementing Medicaid Reimbursed Community Health Worker Support for Health Behaviors on Mental Health Functioning and Quality of Life in Medicaid Beneficiaries with Serious Mental Illness

Major Goals: This study aims to test whether implementing a recent policy change making CHW services billable through Medicaid and Medicare improves mental health functioning and cardiovascular risk for people with SMI, with special attention to understanding to mediating mechanisms.

PI: A. Eden Evins Additional COE Staff: Cori Cather, Cheryl Foo Source of Support: NIH-NIMH Start and End Date: 03/2025-02/2030 Budget: \$4,150,069 Status: Under Review

Title: Effect of Network-Based Real Time Neurofeedback Augmentation of Mindfulness Practice on Recurrent Negative Thinking in Adolescents at Risk for Serious Mental Illness

Major Goals: The proposed research will investigate whether an innovative mindfulness based real-time fMRI neurofeedback intervention successfully elicits change in the brain circuit underlying repetitive negative thinking to improve clinical outcomes among at-risk adolescents.

PI: A. Eden Evins Source of Support: NIH-NIMH Start and End Date: 03/2025-02/2030 Budget: \$4,135,407 Status: Under Review

GRANTS TO BE RESUBMITTED IN Y7

Title: Promoting Long-Acting Injectable Antipsychotic Initiation and Adherence Following Psychiatric Hospitalization for Early Psychosis: A Technology-Enhanced Shared Decision-Making Intervention

Major Goals: The project addresses relapse prevention and underutilization of an effective solution, long-acting injectable antipsychotics. The study aims to develop and pilot a technology-enhanced shared decision-making intervention to improve LAI initiation and post-discharge adherence for psychiatrically hospitalized adults with early psychosis.

PI: Cheryl Foo Additional COE Staff: Kim Mueser, Abigail Donovan, Cori Cather Source of Support: 6th Alkermes Pathways Research Award Start and End Date: Q3 2024 - Q3 2026 Budget: \$100,000 Status: Unfunded. Resubmission in November 2024

GRANTS SUBMITTED BUT NOT FUNDED

Title: Supporting Treatment Adherence for Young adults with Early Psychosis by Leveraging Longacting Injectable Antipsychotics (STAYWELL) During Psychiatric Hospitalization

Major Goals: The project addresses relapse prevention and underutilization of an effective solution, long-acting injectable antipsychotics. The study aims to develop and pilot a technology-enhanced shared decision making intervention to improve long-acting injectable antipsychotic initiation and post-discharge adherence for psychiatrically hospitalized adults with early psychosis.

PI: Cheryl Foo

Additional COE Staff: Kim Mueser, Abigail Donovan, Cori Cather

Source of Support: Brain and Behavior Research Foundation Young Investigator Award

Start and End Date: Q1 2025 to Q4 2027

Budget: \$70,000

Title: Preventing Suicide and Relapse in Early Psychosis with Ecological Momentary Assessmentbased Personalized Treatment (PREEMPT)

Major Goals: The project proposes to adapt an ecological momentary assessment app for early psychosis and co-occurring suicidal thoughts and behaviors, and develop a clinical tool using personalized ecological momentary assessment data visualization and feedback, enhancing and integrated with usual care, to improve symptom and suicidal thoughts and behavior monitoring and to prevent relapse and suicide.

PI: Cheryl Foo

Source of Support: MGH Center for Suicide Research and Prevention Advanced Scholars Track **Start and End Date:** Q3 2024 to Q2 2025 **Budget:** \$50,000

DISSEMINATION

PUBLICATIONS 2023

- Ard KL, Bruno J, Uzoeghelu U, Lambert C, Khan T, Davis JA, Mayer KH & Keuroghlian AS. (2023). PrEP ECHO: A national interdisciplinary telementoring program for HIV prevention through practice transformation. *AIDS Education and Prevention*, 35(3), 247-253. <u>https://doi.org/10.1521/aeap.2023.35.3.247</u>
- Baumer AM, Nestor BA, Potter K, Knoll S, **Evins AE**, Gilman J, Kossowsky J, Schuster RM. (2023). Assessing changes in sleep across four weeks among adolescents randomized to incentivized cannabis abstinence. *Drug Alcohol Depend*. 252:110989. <u>https://doi.org/10.1016/j.drugalcdep.2023.110989</u>
- Blajeski S, Smith MJ, Harrington M, Johnson J, Ross B, Weaver A, Razzano LA, Jordan N, Oulvey EA, Mueser KT, McGurk SR, Bell MD, & Smith JD (2023). A mixed-method implementation evaluation of virtual reality job interview training for individuals with serious mental illness in IPS supported employment. *Psychiatric Services (Washington D.C.)*, 75(3), 228-236. <u>https:// doi.org/10.1176/appi.ps.20230023</u>.
- Daumit GL, **Evins AE, Cather C**, et al. (2023). Effect of a tobacco cessation intervention incorporating weight management for adults with serious mental illness: A randomized clinical trial. *JAMA Psychiatry*, *80*(9), 895–904. <u>https://doi.org/10.1001/jamapsychiatry.2023.1691</u>
- Dickerson F, Goldsholl S, Yuan CT, Dalcin AT, Eidman B, Minahan E, Gennusa JV, Mace E, Cullen B, **Evins AE, Cather C,** Wang NY, McGinty EM & Daumit GL (2023). Promoting evidence-based tobacco cessation treatment in community mental health clinics: Protocol for a prepost intervention study. *JMIR Research Protocols*, *12*(1), e44787. <u>https://doi.org/10.2196/44787</u>
- **Donovan A.** (2023). Psychiatric boarding trends among publicly insured youths during the COVID-19 pandemic—The other pandemic. *JAMA Network Open*, 6(7), e2321754. <u>https://doi.org/10.1001/jamanetworkopen.2023.21754</u>
- Espi Forcen F & **Freudenreich O**. (2023). Coping with pandemics: A historical perspective about society's tools to deal with global infectious diseases. *J Nerv Ment Dis, 211*(12), 927-933. <u>https://doi.org/10.1097/nmd.000000000001668</u>
- **Foo CYS**, Gaudiano BA, Friedman-Yakoobian M & Yen S. (2023). Acceptancebased parent training intervention for youths with co-occurring psychotic symptoms and suicidal behaviors: A case series from an open trial. *International Journal of Cognitive Therapy*, *17*(4). <u>https://doi.org/10.1007/s41811-023-00181-1</u>
- Fulford D & Holt DJ (2023). Social withdrawal, loneliness, and health in schizophrenia: Psychological and neural mechanisms. *Schizophrenia Bulletin*, 49(5), 1138-1149. <u>https://doi.org/10.1093/schbul/sbad099</u>
- Gilman JM, Potter K, Schuster RM, Hoeppner BB & **Evins AE** (2023). Cannabis use for medical symptoms: Patterns over the first year of use. *Addictive Behaviors*, 144, 107719. <u>https://doi.org/10.1016/j.addbeh.2023.107719</u>
- **Keuroghlian AS**, Marcus PH, Neufeld J, Phillips E, Grasso C & Wozniak JR. (2023). Telehealth for psychiatry and mental health care can improve access and

patient outcomes. *Nature Medicine, 29*(11), 2698–2700. <u>https://doi.org/10.1038/s41591-023-02579-y</u>

- Keuroghlian AS. (2023). Countering the health disinformation machine. *N Engl J Med, 389*(14), 1256-1258. <u>https://doi.org/10.1056/nejmp2307572</u>
- Kim H, Goetz TG, Grieve V & **Keuroghlian AS**. (2023). Psychopharmacological considerations for gender-affirming hormone therapy. *Harvard Review of Psychiatry*, *31*(4), 183–194. <u>https://doi.org/10.1097/HRP.00000000000373</u>
- Lim C, Patel SK & **Freudenreich O**. (2023). Adult-onset stuttering in schizophrenia with catatonia that responded to electroconvulsive therapy. *J Acad Consult Liaison Psychiatry*, *64*(4), 407-408. <u>https://doi.org/10.1016/j.jaclp.2023.03.004</u>
- McDowell MJ, King DS, Gitin S, Miller AS, Batchelder AW, Busch AB, Greenfield SF, Huskamp HA & **Keuroghlian AS**. (2023). Alcohol use disorder treatment in sexually and gender diverse patients. *J Clin Psychiatry*, *84*(5). <u>https://doi.org/10.4088/jcp.23m14812</u>
- Mueser KT, Sussman RF, DeTore NR, & McGurk SR. (2023). The impact of early intervention for first episode psychosis on cognitive functioning. *Schizophrenia Research*, *260*, 132–139. <u>https://doi.org/10.1016/j.schres.2023.07.021</u>
- Schuster RM, Cather C, Pachas GN, Nielsen L, Iroegbulem V, Dufour J, Potter K, Levy S, Gray KM & Evins AE (2023). A randomized controlled trial of varenicline and brief behavioral counseling delivered by lay counselors for adolescent vaping cessation: Study protocol. Frontiers in Psychiatry, 14, 1083791. <u>https://doi.org/10.3389/fpsyt.2023.1083791</u>
- Streck JM, Regan S, Werner M, Glynn A, Villanti AC, Park ER, Wakeman SE, Evins AE & Rigotti NA (2023). Preliminary feasibility of integrating tobacco treatment into SUD peer recovery coaching: a mixed-methods study of peer recovery coaches. *Addiction Science & Clinical Practice*, 18(1), 25. <u>https://doi.org/10.1186/s13722-023-00380-3</u>
- Turban JL, Dolotina B, Freitag TM, King D & **Keuroghlian AS.** (2023). Rapid-onset gender dysphoria is not a recognized mental health diagnosis. *J Adolesc Health*, *73*(6), 1163–1164. <u>https://doi.org/10.1016/j.jadohealth.2023.09.009</u>
- Weiss JH, Tervo-Clemmens B, **Evins AE**, Gilman JM (2023). The Cannabis Effects Expectancy Questionnaire–Medical (CEEQ–M): Preliminary psychometric properties and longitudinal validation within a clinical trial. *Psychological Assessment* 35(8), 659–673. <u>https://doi.org/10.1037/pas0001244</u>

BOOKS 2023

Books

Goetz GT & **Keuroghlian AS**. (Eds.). (2023). *Gender-affirming psychiatric care* (First edition). American Psychiatric Association Publishing.

PUBLICATIONS 2024

- Amonoo H, Onyeaka H, Onyema C & **Evins AE**. (2024). Associations between health-related use of social media and positive lifestyle behaviors: Findings from a representative sample of US adult smokers. *Substance Use and Misuse*, *59*(4), 527–535. <u>https://doi.org/10.1080/10826084.2</u> 023.2287199
- Browne J, Elbogen EB, Mueser KT, Rudolph JL, Wu WC, Philip NS, Mills WL, Young AS, Sloane R & Hall KS. (2024). Trajectories of physical function changes for older veterans with serious mental illness in a clinical exercise program. *Mental Health and Physical Activity*, 26, 100580. <u>https://doi.org/10.1016/j.mhpa.2024.100580</u>
- Chinbunchorn T, Mayer KH, Campbell J, Alm DK, Krakower D, Marcus JL, Grasso C & **Keuroghlian AS**. HIV pre-exposure prophylaxis provision by U.S. health centers in 2021. *AIDS (London,*

England), 38(3), 415-420. https://doi.org/10.1097/QAD.00000000003774

- Clauss JA, **Foo CYS, Leonard CJ**, Dokhoylan N, **Cather C** & **Holt DJ**. (2024). Screening for psychotic experiences and psychotic disorders in general psychiatric settings: A systematic review and meta-analysis. *medRxiv*. Preprint. <u>https://doi.org/10.1101/2024.04.14.24305796</u>
- Cooke ME, Knoll SJ, Streck JM, Potter K, Lamberth E, Rychik N, Gilman JM, **Evins AE** & Schuster RM. (2024). Contingency management is associated with positive changes in attitudes and reductions in cannabis use even after discontinuation of incentives among non-treatment seeking youth. *Drug and Alcohol Dependence, 256*, 111096. <u>https://doi.org/10.1016/j.</u> <u>drugalcdep.2024.111096</u>
- DeTore NR, Burke A, Nyer M, & **Holt DJ.** (2024). A brief resilience-enhancing intervention and loneliness in at-risk young adults: A secondary analysis of a randomized clinical trial. *JAMA Network Open*, 7(2), e2354728. <u>https://doi.org/10.1001/jamanetworkopen.2023.54728</u>.
- **Donovan AL**, Vyas CM, Petriceks A, Paudel S, Van Alphen MU & Stern TA. (2024). Assessment and treatment of abnormal involuntary movements: A clinically focused narrative review. *Harvard Review of Psychiatry*, *32*(2), 47–57. <u>https://doi.org/10.1097/</u> <u>HRP.00000000000390</u>
- **Foo CYS**, Potter K, Nielsen L, Rohila A, Maravic MC, Schnitzer K, Pachas GN, Levy DE, Reyering S, Thorndike AN, **Cather C & Evins AE.** (2024). Implementation of community health worker support for tobacco cessation: A mixed-methods study. *medRxiv*, 2024.01.26.24301835. <u>https://doi.org/10.1101/2024.01.26.24301835</u>. Preprint.
- Karunakaran KD, Pascale M, Ozana N, Potter K, Pachas GN, Evins AE, Gilman JM. (2024). Intoxication due to Δ9-tetrahydrocannabinol (THC) is characterized by disrupted prefrontal cortical connectivity: A randomized clinical trial. *Neuropsychopharmacology*, 49(9), 1481– 1490. <u>https://doi.org/10.1038/s41386-024-01876-5</u>
- Keuroghlian AS, Marc L, Goldhammer H, Massaquoi M, Downes A, Stango J, Bryant H, Cahill S, Perez AC, Head JM, Mayer KH, Myers J, Rebchook GM, Bourdeau B, Psihopaidas D, Chavis NS & Cohen SM. (2024). A peer-to-peer collaborative learning approach for the implementation of evidence-informed interventions to improve HIV-related health outcomes. *AIDS and Behavior*. <u>https://doi.org/10.1007/s10461-023-04260-4</u>
- **Keuroghlian AS.** (2024). Cisgender privilege in public health research. *American Journal of Public Health*, *114*(2), 142–143. <u>https://doi.org/10.2105/AJPH.2023.307542</u>
- Lester M, **Scanlon F** & Batastini A. (2024). Doubling down on dosage: exploring the interplay between dosage effects, antisocial traits, treatment attitudes, and recidivism-related therapy outcomes. *Journal of Criminal Psychology*. Online ahead of print. <u>https://doi.org/10.1108/JCP-01-2024-0005</u>
- Lim C, **Donovan A**, Freudenreich S, **Cather C**, Maclaurin S & **Freudenreich O**. (2024). Second opinions in psychotic disorders: Delivering stage-specific recommendations. *Psychiatric Services*, appips20230623. Online ahead of print. <u>https://doi.org/10.1176/appi.ps.20230623</u>
- Liu M, Grasso C, Kim H-H, Mayer KH & Keuroghlian AS. (2024). Advancing pediatric sexual orientation and gender identity data collection. *American Journal of Public Health*, 114(1), 17-20. <u>https://doi.org/10.2105/ajph.2023.307448</u>
- Liu M, Patel VR, Reisner SL & **Keuroghlian AS**. (2024). Health status and mental health of transgender and gender-diverse adults. *JAMA Intern Medicine*, *184(8)*, *984-986*. <u>https://doi.org/10.1001/jamainternmed.2024.2544</u>.
- Lu W, Caldwell B, Gao N, Oursler J, Wang K, Beninato J, Srijeyanthan J, Kumi C, Sawyer J, Giacobbe G & **Mueser KT**. (2024.). Healing trauma while staying at home: Using telehealth to conduct a brief treatment program for PTSD. *Journal of Psychosocial Nursing and Mental Health Services*, 62(7), 36–46. <u>https://doi.org/10.3928/02793695-20231205-01</u>

Mayer K, Peretti M, McBurnie MA, King D, Smith N, Crawford P, Loo S, Sigal M, Gillespie S, Davis J,

Cahill S, Grasso C & **Keuroghlian AS**. (2024). Training health center staff in the provision of culturally responsive care for sexual and gender minority patients: Results of a randomized controlled trial. *LGBT Health*, *11*(2), 131-142. <u>https://doi.org/10.1089/lgbt.2022.0322</u>

- Meza BPL, Pollack CE, Tilchin C, Jennings JM, Latkin CA, Cather C, Dickerson F, Evins AE, Wang NY, Daumit GL, Yuan C & Gudzune KA. (2024). Social networks of people with serious mental illness who smoke: Potential role in a smoking cessation intervention. *Journal of Mental Health*, 1–10. Online ahead of print. <u>https://doi.org/10.1080/09638237.2024.2332807</u>
- Mitnick S, Goldhammer H, Thompson J, Bruno J, Dunn M, Reisner SL & **Keuroghlian AS**. (2023). Advancing excellence in transgender health: An international professional development conference on affirming care for transgender and gender diverse people. *Journal of Medical Education and Curricular Development*, 10. <u>https://doi.org/10.1177/23821205231191478</u>
- Mosier-Mills A, Kim HH & **Keuroghlian AS.** (2024). Removing barriers and honoring autonomy: Rethinking mental health professional assessments in adolescent gender-affirming medical care. *Harvard Review of Psychiatry*, *32*(3), 96–100. <u>https://doi.org/10.1097/</u> <u>HRP.000000000000397</u>
- Petriceks A, Vyas CM, Paudel S, **Donovan AL**, Van Alphen MU & Stern TA. (2024). Assessment and treatment of abnormal involuntary movements. *Harv Rev Psychiatry*, *32*(2):47-57. <u>https://doi.org/10.1097/hrp.000000000000390</u>
- Pletta DR, Austin SB, Chen JT, Radix AE, **Keuroghlian AS**, Hughto JMW & Reisner SL. (2024). Lower levels of social support are associated with risk for future suicide attempts in a clinical sample of transgender and gender diverse adults. *Soc Psychiatry Psychiatr Epidemiol, 59*(8), 1401–1412. <u>https://doi.org/10.1007/s00127-023-02606-w</u>
- Reisner SL, Deutsch MB, Mayer KH, Campbell J, Potter J, **Keuroghlian AS**, Hughto JMW, Asquith A, Pardee DJ, Harris A, Quint M, Grasso C, Gonzalez A & Radix A. Decreased anogenital gonorrhea and chlamydia in transgender and gender diverse primary care patients receiving gender-affirming hormone therapy. *J Gen Intern Med*, *39*(7), 1164–1172. <u>https://doi.org/10.1007/s11606-023-08531-7</u>
- Sandhu S, Liu M & **Keuroghlian AS**. (2024). Strategies for insurers to promote sexual and gender minority health. *JAMA Health Forum*, *5*(4), e240439. <u>https://doi.org/10.1001/jamahealthforum.2024.0439</u>
- Scanlon F, Morgan RD & Aceves D. (2024). Implementing a treatment for people with serious mental illness in jail: A mixed-methods study of stakeholder perspectives on feasibility and acceptability. Adm Policy Ment Health. <u>https://doi.org/10.1007/s10488-024-01380-4</u>
- Srinivasan S, Goldhammer H, Charlton BM, McKenney T & **Keuroghlian AS**. (2024). Addressing gaps in access to LGBTQIA+ health education resources: A novel e-learning platform. *J Med Educ Curric Dev*, *11*, 23821205241262212. <u>https://doi.org/10.1177/23821205241262212</u>
- Streck JM, Potter K, Pachas GN, **Cather C**, Nielsen L & **Evins AE.** (2024). Alternative combusted tobacco product and multiple tobacco product use among individuals with serious mental illness enrolled in a large pragmatic randomized controlled trial. *Addict Behav*, *148*, 107844. <u>https://doi.org/10.1016/j.addbeh.2023.107844</u>
- Tervo-Clemmens B, Bentley K, Smoller JW, Nock M, **Evins AE**, Gilman JM & Schuster RM. *(2024)*. Substance use is dose dependently associated with suicidal thoughts and psychiatric comorbidities. *JAMA Pediatrics*, *178(3)*, *310-313*. <u>https://doi.org/10.1001/jamapediatrics.2023.6263</u>.
- Tervo-Clemmens B, Pachas GN, **Evins AE**, Gilman JM & Schuster RM. (2024). The developmental timing but not magnitude of adolescent risk-taking propensity is consistent across social, environmental, and psychological factors. *J Adolesc Health*, 74(3), 613–616. <u>https://doi.org/10.1016/j.jadohealth.2023.11.001</u>
- Winickoff J, Evins AE & Levy S. (2024). Vaping in youth. JAMA , 332(9), 749-750. https://doi.

org/10.1001/jama.2024.13403

Wu CA, Ho I, Minasian A, Keuroghlian AS, O'Brien-Coon D & Ranganathan K (2024). Variability in Medicaid coverage for gender-affirming surgeries across US States. *Annals of Surgery*, 279(3), 542–548. <u>https://doi.org/10.1097/SLA.00000000005974</u>

BOOKS 2024

Book chapters

Mueser KT. (2024). Preface. In Hardy KV & Turkington D (Eds.), *Decoding delusions: A clinician's guide to working with delusions and other extreme beliefs*. Washington, DC: American Psychiatric Association Publishing (pp. xii-xviii).

Edited books

Thornicroft G, Drake RE, Gureje O, **Mueser KT** & Szmukler G(Eds.), *Oxford textbook of community mental health (Second edition)*. Oxford, England: Oxford

Books in press

- **Mueser KT**, Bellack AS, Gingerich S & Agresta J. (*In press*). *Social skills training for schizophrenia: A step-by-step guide* (Third edition). New York: Guilford Press.
- **Mueser KT** & Gottlieb JD. (*In press*). *Treatment of posttraumatic stress disorder in serious mental illness: The cognitive restructuring program*. Washington, DC: American Psychological Association.

Book chapters in press

- Browne J & **Mueser KT**. (*In Press*). New models of social skills training for persons with schizophrenia. In Nicolò G & Pompili E (Eds.). *Integrated intervention in community psychiatry* (*Second edition*). Pisa, Italy: Pacini Editore Medicina.
- Drake RE & **Mueser KT**. (*In Press*). Co-occurring substance use disorders. In Thornicroft G, Drake RE, Gureje O, **Mueser KT** & Szmukler G (Eds.), *Oxford textbook of community mental health* (Second edition). Oxford, England: Oxford.
- **Mueser KT** & Drake RE. (*In Press*). Developing evidence-based mental health practices. In Thornicroft G, Drake RE, Gureje O, **Mueser KT** & Szmukler G (Eds.), *Oxford textbook of community mental health (Second edition)*. Oxford, England: Oxford.
- **Mueser KT** & Gingerich S. (*In Press*). Illness self-management programmes. In Thornicroft G, Drake RE, Gureje O, **Mueser KT** & Szmukler G (Eds.), *Oxford textbook of community mental health (Second edition)*. Oxford, England: Oxford.
- **Mueser KT**, Fulford D & Mow J. (*In Press*). Social skills training for negative symptoms. In Brown M, Lincoln T & Kimhy D (Eds.), *Psychosocial approaches to negative symptoms in psychosis: Intervention & assessment for clinicians and researchers*. New York: Oxford.
- Roe D, Hasson-Ohayon I & Mueser KT. (*In Press*). Psychiatric illness. In: Meade M, Bechtold K & Wegener S (Eds.), *The Oxford handbook of rehabilitation psychology (Second edition)*. New York: Oxford.

POSTERS

Foo CYS*, Clauss JA*, Utter LA, Coman D, Newton M, Bhiku K, London J, Donovan A, Cather C, Holt D. Improving accuracy of screening for Clinical High Risk for Psychosis (CHR-P) in an adolescent population seeking help through the MGH Resilience Evaluation-Social Emotional Training (RE-SET) Program. Presented at the Massachusetts General Hospital 20th Clinical Research Day; Boston, MA; October 12, 2023. *Co-first authors.

- **Foo CYS,** Potter K, Nielsen L, Rohila A, Pachas G, Thorndike A, **Cather C, Evins AE**. Understanding treatment engagement to inform implementation of community health worker support for tobacco cessation in primary care: A mixed methods study. Presented at the Massachusetts General Hospital 20th Clinical Research Day; Boston, MA; October 12, 2023.
- Clauss JA*, **Foo CYS***, Utter LA, Coman D, Newton M, **Bhiku K, London J, Donovan A, Cather C, Holt D.** Improving accuracy of screening for Clinical High Risk for Psychosis (CHR-P) in an adolescent population seeking help through the MGH Resilience Evaluation-Social Emotional Training (RE-SET) Program. Presented at the Fourth Annual Mass-STEP Conference; Boston, MA; November 6, 2023. *Co-first authors.
- **Foo CYS, Cather C, Mueser KT.** Prospective relationships between social functioning and insight in recovery after a first episode of psychosis. Presented at the Fourth Annual Mass-STEP Conference; Boston, MA; November 6, 2023
- **Foo CYS*,** Clauss JA*, Utter LA, Coman D, Newton M, **Donovan A, Holt D, Cather C.** Validation of a brief psychosis screener in a population seeking help through the Massachusetts General Hospital Psychosis and Clinical Research Program. Presented at the Fourth Annual Mass-STEP Conference; Boston, MA; November 6, 2023. *Co-first authors.
- **Foo CYS**, Clauss JA, **Leonard CJ**, Dokhoylan K, **Marinov ZD**, **Kwon J**, **Cather C** & **Holt D**. Prevalence of psychotic spectrum illness identified by systematic screening in general psychiatric settings: A meta-analysis. Poster presented for the 2024 Congress of the Schizophrenia International Research Society; Florence, Italy; April 4, 2024.
- **Evins E, Cather C,** Pachas GN, Iroegbulem V, Dufour JR, Casottana K, Zhao J, Potter K, Bodolay A & Schuster RM. Baseline characteristics of adolescents enrolled in a pharmacotherapy vaping cessation trial who do not smoke tobacco regularly. Poster presented for the College on Problems of Drug Dependence (CPDD) 86th Annual Scientific Meeting; Montral, Quebec, CA. June 15-19, 2024.
- Owens G, Meyer-Kalos P, Neill M & **Mueser KT**. The development, feasibility and accuracy of the NAV-FS: A comparative review of FEP fidelity scales. Poster presented for the 131st Annual Meeting of the American Psychological Association; Washington DC; August 5, 2023.

PRESENTATIONS: LOCAL AND REGIONAL

- Holt D. How Building resiliency in young adults could help address a mental health crisis. Interviewed by the Mass General Research Institute Bench Press Blog; Boston, MA; July 11, 2023.
- **Foo CYS.** Patient and family service engagement in first-episode psychosis programs in Massachusetts: LEAP pilot project. Presented for the McLean Laboratory for Early Psychosis (LEAP) Investigators meeting; Belmont, MA; October 3, 2023.
- **Donovan A.** Management of Side Effects of Antipsychotics. Lecture given for the 47th Annual Psychopharmacology Conference; the Massachusetts General Hospital Psychiatry Academy; Boston, MA; October 27, 2023.
- **Freudenreich O.** No health without planetary health: Climate change and mental illness. Talk presented for the MGH Psychiatry Department's 20th Annual Schizophrenia Education Day; [Virtual]; December 1, 2023.
- Scanlon F. Criminal legal involvement for people with serious mental illness. Talk presented for the MGH Psychiatry Department's 20th Annual Schizophrenia Education Day; [Virtual]; December 1, 2023.
- **Donovan A.** Current challenges in child and adolescent mental health. Talk presented for the MGH Psychiatry Department's 20th Annual Schizophrenia Education Day; [Virtual]; December 1, 2023.

- **Freudenreich O.** Topic: Climate change and mental health: what clinicians can do. Grand rounds at Montefiore/Einstein; New York, NY; January 11, 2024.
- **Scanlon, F.** People with serious mental illness involved in the criminal legal system: Treatment needs and research. Presented to Friends and Family of Individuals with Mental Illness (FFIMI); [Virtual]; January 23, 2024.
- **Keuroghlian AS.** Mental health care for transgender and gender diverse people. Virtual presentation given to the MGH Chelsea HealthCare Center; January 2024.
- **Freudenreich O.** Psychopharmacology and Climate Change: Preventing heat-related illnesses. Talk given for the APA 2024 Annual Meeting; New York City, NY; May 4, 2024.
- **Freudenreich O.** Clozapine in practice: side effects and partial response/Symposium speaker. Talk given for the APA 2024 Annual Meeting; New York City, NY; May 7, 2024.
- **Freudenreich O.** Climate change and its effects on mental health. Virtual talk given to the general public, Greater Lynn Senior Services; August 8, 2023.

PRESENTATIONS: NATIONAL

- **Keuroghlian AS.** TransECHO: A national tele-education program for gender-affirming care at health centers. Talk given to the U.S. Health Resources and Services Administration Bureau of Primary Health Care; Rockville, Maryland; January 2024.
- **Holt, DJ.** Advances in early detection of psychosis using brain imaging. Talk presented at the 18thAnnual Seminar of the MGH Leadership Council for Psychiatry; Palm Beach, FL. February 8, 2024.
- **Scanlon F.** Multiple imputation in treatment data with extreme missingness & propensity weighting: Background and a worked example. Southern Illinois University, Carbondale. Carbondale, IL; March 19, 2024.
- **Freudenreich O.** Climate change impact on mental health. Talk given for Department of Psychiatry Grand Rounds, University of Kentucky [Zoom]. Lexington, KY; May 14, 2024.

PRESENTATIONS: INTERNATIONAL

- **Mueser KT.** Working with families of people with mental health challenges. Workshop presented at Drammen Kommune; Drammen, Norway; January 17-18, 2024.
- **Mueser KT**. Treatment of PTSD in persons with serious mental illness: A cognitive restructuring approach. Invited presentation at the EMDR Association of Spain Scientific Update on Approach to Trauma and Associated Disorders. Madrid, Spain; January 27, 2024.
- Morgan RD & **Scanlon F.** Treating criminal risk in the context of mental illness. Workshop presented for the Correctional Service of Canada Psychologists' Winter Workshop. Virtual; January 31, 2024.
- **Holt, DJ.** Novel strategies for the prevention of psychosis: Focus on resilience. Talk presented at the Child and Adolescent Psychosis: Update Conference; Barcelona, Spain. February 2, 2024.

OTHER

Donovan A. Interviewed by National Geographic for the article "Schizophrenia in women is widely misunderstood—and underdiagnosed." Published online at <u>https://www.nationalgeographic.</u> <u>com/premium/article/schizophrenia-under-diagnosed-women</u>; December 12, 2024.

PRESENTATIONS TO COMMUNITY STAKEHOLDERS

- **Chambers V.** Unequal treatment revisited. Presenter and panelist for the National Academies of Sciences, Engineering, and Medicine. Virtual; July 12th, 2024.
- **Chambers V.** Celebration of BIPOC mental health month: What is your wellness plan? Presented for the Black Voices: Pathways for Recovery and the Mental Health Association of New Jersey; Virtual; July 23rd, 2023.
- Alves P. Supporting recovery and wellness in young people. Presenter for the 8th Annual New York State Recovery Conference. Saratoga Springs, New York; October 1st-3rd, 2023.
- Whitman A & Chambers V. The roles of peer specialists, recovery coaches, and family partners. Presented for the Cambridge Health Alliance Grand Rounds; Virtual; November 8th, 2023.
- Whitman A & Cather C. [Panelists]. The care team panel. Presented for the Karuna Pharmaceutical's Schizophrenia Disease State Educational Seminar; Boston, MA; November 14th, 2023.
- Whitman A, Martinez J, Jones S, Markley R & Whitney-Sarles S. Our creative research approach: Integrating the voices of peer specialists into research. Workshop and panel presented for the Massachusetts Peer WorkForce Coalition Summit; Westborough, MA; December 8th, 2023.
- **Chambers V.** When life gives you lemons, it's time to make lemonade. Presented for Brandeis University; Waltham, MA; February 20th, 2024.
- **Alves P.** Infinite pathways of recovery. Presenter for the Multiple Pathways Recovery Conference. Des Moines, Iowa; August 21st-23rd, 2024.
- Alves P. Maximizing the supervision relationship. Presenter for the Faces & Voices Recovery Leadership Summit. Denver, Colorado; June 2nd-5th, 2024.

APPENDIX A: Y6 STAFF AND INTERNS

STAFF

Paul Alves, CARC, NCPRSS, MAPGS: Peer Consultant Kamila Bhiku, BS: Sr. Clinical Research Coordinator Corinne Cather, PhD: Director, Associate Professor of Psychology Valeria Chambers, CPS, EdM, CAS: Peer Consultant Abigail Donovan, MD: Associate Professor of Psychiatry A. Eden Evins, MD, MPH: Professor of Psychiatry Cheryl Foo, PhD: Clinical Psychologist, Instructor of Psychology Oliver Freudenreich, MD: Associate Professor of Psychiatry Daphne Holt, MD, PhD: Associate Professor of Psychiatry Sharina Jones, CPS: Peer Consultant Alex Keuroghlian, MD, MPH: Steering Committee Chair, Associate Professor of Psychiatry Stan Langston, Recovery Coach and Recovery Coach Specialist: Peer Consultant Catherine Leonard, BS: Clinical Research Coordinator I Julia London, BA: Clinical Research Coordinator II Ryan Markley, BA, CPS: Peer Consultant Jacqueline Martinez, FPS, CPS: Peer Consultant Kim Mueser, PhD: Professor of Psychology Faith Scanlon, PhD: Clinical & Research Fellow Stephanie Shou, BA: Graphic Designer Anne Whitman, PhD, CPS: Director of the Peer Consultant Team, Peer Consultant Sandra Whitney-Sarles, MS, CPS, COAPS: Associate Director of the Peer Consultant Team, Peer Consultant

STUDENT INTERNS

Olivia Choi, BA: Graduate Student Summer Intern (Brown University) Jeffrey Kwon: Summer Intern (Massachusetts Institute of Technology) Zachary Marinov: Summer Intern (Massachusetts Institute of Technology) Sundeep Chakladar: Winter Intern (Massachusetts Institute of Technology) Ashlee Tan: Winter Intern (Massachusetts Institute of Technology)

APPENDIX B: ANTI-RACISM SEMINAR MATERIALS

Month 1 (July 2023): Financing of Healthcare: Medicare, Medicaid, and the ACA

- <u>NPR podcast: Accidents Of History Created U.S. Health System</u>
- KFF Video: The Story of Medicare
- Reagan Foundation Video: Ronald Reagan Speaks Out on Socialized Medicine
- <u>US News 2015 Article: Desegregation: The Hidden Legacy of Medicare</u>
- Article: Meyers DJ, Mor V, Rahman M & Trivedi AN. (2021). Growth in Medicare Advantage greatest among Black and Hispanic enrollees: Study examines the extent to which growth in Medicare Advantage is being driven by increased participation of racial/ethnic minorities and other traditionally marginalized groups. *Health Affairs*, 40(6), 945-950.
- Article: Seshamani M. (2022). Medicare and telehealth: Delivering on innovation's promise for equity, quality, access, and sustainability. *Health Affairs, 41*(5), 651–653.
- Optional Article: Martino SC. (2023). Development of a Medicare plan dashboard to promote health equity. *The American Journal of Managed Care*.

Month 2 (August 2023): Financing of Healthcare: Medicare – Medicaid and the ACA Part 1

- Coursera Video: The Affordable Care Act (ACA): Historical and Contemporary Stakes
- Coursera Video: Medicaid: The first 30 years video
- <u>Coursera Video: Medicaid: The first 30 years video what needs to change for the under-</u><u>represented</u>
- <u>The Atlantic Article: The Fight for Health Care has Always Been About Civil Rights and How</u> <u>Obamacare Saved Detroit</u>

Month 3 (September 2023): Racial and Ethnic Health Disparities – The role of insurance

- KFF Article: Key facts about the uninsured population
- <u>The Commonwealth Fund Article (2020): How the Affordable Care Act has narrowed racial and</u> <u>ethnic disparities in access to health care</u>
- Kaur N, Esie P, Finsaas MC, Mauro PM, & Keyes KM. (2023). Trends in racial-ethnic disparities in adult mental health treatment use from 2005 to 2019. *Psychiatric Services*, *74*(5), 455-462.
- <u>Podcast:</u> Accompanying podcast to Kaur et al. (2023) article.
- Optional resources
 - The Affordable Care Act Interview
 - Interview with Prof. Sara Rosenbaum
 - Article: Lee BP, Dodge JL & Terrault NA. (2022). Medicaid expansion and variability in mortality in the USA: A national, observational cohort study. *The Lancet Public Health*, 7(1), e48-e55.

Month 4 (October 2023): Mass General Brigham - "We are Upstanders" Training

• MGH training on HealthStream: "We are Upstanders: Developing skills for addressing racism and discrimination in healthcare."

Month 5 (November 2023): Hospital System and Racial Health Care Discrimination

- The healthcare divide between rich and poor hospitals
- Kaplan A & O'Neill D. (2020). Hospital price discrimination is deepening racial health inequity. *NEJM Catalyst Innovations in Care Delivery*, *1*(6).
- Sandhu S, Liu M & Wadhera RK. (2022). Hospitals and health equity Translating measurement into action. *The New England Journal of Medicine*, *387*(26), 2395–2397.
- Optional resources:
 - Grogan CM, Lin YA & Gusmano MK. (2021). Unsanitized and unfair: How COVID-19 bailout funds refuel inequity in the US health care system. *Journal of Health Politics, Policy and Law*, *46*(5), 785-809.
 - Meyers DJ, Mor V, Rahman M & Trivedi AN. (2021). Growth in Medicare Advantage Greatest among Black And Hispanic Enrollees: Study examines the extent to which growth in Medicare Advantage is being driven by increased participation of racial/ethnic minorities and other traditionally marginalized groups. *Health Affairs*, 40(6), 945-950.

Month 6 (December 2023): No meeting held

Month 7 (January 2024): Gun Violence – Part 1

- Rolle ML, McLellan RM, Nanda P, Patel AB, Sacks CA, Masiakos PT, & Stapleton CJ (2022). Racial and social determinants of civilian gunshot wounds to the head. *The Neurohospitalist*, *12*(3), 444-452
- Richardson JB, Vil CS, Sharpe T, Wagner M & Cooper C (2016). Risk factors for recurrent violent injury among black men. *Journal of Surgical Research*, *204*(1), 261-266
- Smith ME, Sharpe TL, Richardson J, Pahwa R, Smith D & DeVylder J (2020). The impact of exposure to gun violence fatality on mental health outcomes in four urban US settings. *Social Science & Medicine*, 246, 112587.
- Podcast: Explore How Inequality Fuels Gun Violence
- <u>https://amistadlaw.org/news/explore-how-inequality-fuels-gun-violence-new-season-our-podcast</u>
- Optional resources:
 - Sacks CA, Ingelfinger JR, Taichman DB, Morrissey S, Malina D, Phimister EG, ... & Rubin EJ (2022). Nineteen days in America. *New England Journal of Medicine*, *386*(26), 2445-2449.
 - Sacks CA & Bartels SJ (2020). Reconsidering risks of gun ownership and suicide in unprecedented times. *New England journal of medicine, 382*(23), 2259-2260.

Month 8 (February 2024): Gun Violence – Part 2

- Sharon Toomer & Raquel Mack: Urgent dispatch: Calling on Leadership to respond to violence in Black neighborhoods as a public health crisis. *Perspectives on Health Equity*.
- Sacks, Chana (2023). Gun violence in America: Community-driven approaches to this local and national crisis.
- https://externalmediasite.partners.org/Mediasite/Play/21cc7a83525842e288e5783fcb41df351d
- <u>NEJM (2023). Improving trauma-informed care in the face of firearm violence.</u>

Month 9 (March 2024): Mass Incarceration - Part 1

- The perils of private prison health care
- <u>40% of incarcerated people have chronic conditions how good is the health care they get</u> <u>behind bars?</u>
- The New Jim Crow
 - Chapter 1: The rebirth of caste
 - Chapter 2: The lockdown

Month 10 (April 2024): Mass Incarceration - Part 2

- Andrea Ritchie: Invisible No More Lecture
- The New Jim Crow
 - Chapter 5: The New Jim Crow
 - Chapter 6: The Fire this Time
- Optional Resources:
 - <u>Women and Crime Podcast (45 Minutes): The Susan Burton Story (Lived Experience)</u>
 - <u>Norway Model Video (23 minutes): Changing the Dynamic: A journey of exploration</u> <u>between the Norwegian and American prison systems</u>

Month 11 (May 2024): Women and the Criminal Legal System

- Andrea Ritchie: Invisible No More Lecture
- Women and Crime Podcast: The Susan Burton Story
- Evicted: Poverty and Profit in the American City by Mathew Desmond
 - Chapters 1-4

Month 12 (June 2024): Native Americans

- The Seventh Generation A documentary about Lakota culture
- Impact of Unresolved Trauma on American Indian Health Equity by Dr. Donald Warne
- The summary of community values by Damon Leader Charge developed for the University of South Dakota (1 page)
- Optional Resources
 - Commitment to People and Community Mass General Brigham Outreach Program with Native American Communities Indian Health Service
 - Public Health in Indigenous Populations with Donald Warne, MD, MPH