As we set out to establish Rogers Research Center in early 2020, we could never have anticipated the extraordinary changes that awaited our communities and the world over the past two years. The need for research and innovation to advance the science of evidence-based mental healthcare has never been greater. This is evidenced by the growing demand for our services, the need to maintain a healthy, engaged workforce, and the urgency to provide effective and sustainable outcomes for our patients. Communities are discussing mental illness and substance use disorders more openly than ever before, and that transparency is helping to reduce stigma and remove obstacles to seeking treatment. More employers, educators, and clinicians acknowledge that behavioral health is an essential aspect of well-being. At Rogers Behavioral Health, we have believed this for over 100 years.

While research isn’t new to Rogers, the Research Center concentrates our efforts around strategic priorities that provide increased capacity and resources to make the greatest potential impact for our patients.

In under two years, we added 16 team members, and initiated over 40 new studies. We celebrated significant growth and impact in 2021, a year when our experienced investigators and talented research and data analytics professionals delivered the successes you will read about in this report. Despite COVID-hybrid work schedules, we exceeded our goals with publications, external funding, and engagement. We completed a physical move to our new home in the Ladish Co. Foundation Center on our Oconomowoc, WI campus and have made significant progress toward the build-out of our laboratories that will further support collaborations in genetics, neuroscience, and treatment enhancement research.

We look forward to welcoming leading investigators to our team and to accelerating patient and community participation in research. We are excited to open our precision medicine biobank and expand collaborations in predictive analytics and treatment enhancement. None of this would be possible without the support of Rogers’ executive leadership team, Board of Directors, and our generous donors who share our vision to become a world class behavioral health research center. Thank you for taking the time to read our 2021 Annual Report and to learn more about our work. We welcome your questions or comments and future collaboration opportunities.

Kelly Piacsek, PhD
Vice President of Research, Rogers Behavioral Health
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In August 2021, the Rogers Research Center moved to its new home in the Ladish Co. Foundation Center on Rogers’ Oconomowoc, WI campus. Fittingly, the Research Center shares space in the Ladish Center alongside other programs that provide hope and healing for the families and patients we serve: Rogers Behavioral Health Foundation, the Ronald McDonald House Family Room, and Rogers’ Spiritual Care program.

The Research Center occupies approximately 4,000 square feet on the garden level. In addition to workspaces and conference rooms for the research team, the location provides space for research participant consultation, and three laboratories. Once fully equipped, the space will become home to our Behavioral Health Biobank, Neuroscience Lab, and Interventional Behavior Lab. Far beyond the traditional white walls and tiled floors of older research facilities, the Ladish Center provides a welcoming atmosphere with natural features both inside and on the grounds. We are eternally grateful to the Ladish Co. Foundation for their generous donation and for supporting Rogers patients, families, and team.
Rogers’ team of researchers and clinicians engage in research directly related to improving clinical outcomes for the patients we serve; looking to answer questions that can help us improve treatment planning. Our research also aims to help us better understand the neuroscience and pharmacology of mental health and identify innovative, evidence-based practices to improve our patients’ outcomes today and into the future. While some of our studies focus on a target diagnosis or clinical service line, many involve patients across levels of care and treatment programs.

Rogers Research Center and Rogers Institutional Review Board opened 33 new studies in 2021, for a total of 62 open studies at year’s end. Studies address core research priority areas, as well as system-wide quality improvement efforts, and can cut across multiple service lines.
A Focus On Youth Mental Health

In 2021, Rogers Behavioral Health served over 5,200 children and adolescents in programs across the nation. Compared to 2020, the number of children treated at Rogers increased by 15%. As these numbers continue to grow, the Research Center is focused on new opportunities to quantify and improve treatment outcomes through research. It is critical that we examine the unique mental health impacts for youth in our care.

Pediatric Obsessive-Compulsive Disorder (OCD)

With the generous support of the Franklin Street Giving Tree Foundation, Rogers Research Center was able to examine nearly 1,300 pediatric treatment records to investigate the effectiveness of telehealth treatment during the COVID-19 pandemic compared to in-person care prior to the pandemic. This sample size of patients constitutes the largest ever assembled in pediatric OCD treatment literature by almost five-fold. Results from this study indicated that each treatment modality was effective in reducing OCD symptoms and improving quality of life. These findings pave the way for further use of telehealth for children to bridge the treatment accessibility gap for youth who do not have the means to travel to daily treatment. Findings from this study will be featured at a Department of Child and Adolescent Psychiatry research colloquium at UCLA in March 2022. The next step with this pediatric OCD patient sample is to examine pharmacotherapy regimens during intensive treatment and how those impact patient treatment outcomes.

Pediatric Quality of Life

Assessing patients’ quality of life improvement has been an important measure to ensure that patients are not simply getting better clinically, but that they feel their life has improved as a result of receiving treatment. The standard pediatric measurement tool, the Pediatric Quality of Life Enjoyment and Satisfaction Questionnaire (PQ-LES-Q), is an adapted version of the adult Q-LES-Q assessment (Endicott, Nee, Yang, & Wohlberg, 2006). Few studies have examined the reliability and validity of this questionnaire across a wide range of mental health conditions and across different levels of care for children and adolescents. The Research Center examined six years of these pediatric assessments (over 7,200 patients) to quantify quality of life improvements from admission to discharge. Overall, the analysis helped researchers reveal specific assessment items that were more predictive of quality of life improvements for children in different treatment programs. This work has implications for future use of this instrument, specifically by attenuating expectations for quality of life improvement based on patient profile.

“Early identification of and intervention on behavioral problems are key to improving lifelong outcomes for our patients. Providers can’t always assume that treatments will work similarly for children, adolescents, and adults. Our investigations into factors that may impact the efficacy of treatment for OCD early in life are vital for understanding who among our young patients may be at greater risk, who may be least responsive to treatment, and how we can tailor our treatment to better address their needs.”

– Gregor Horvath, MS, Research Associate
A Focus On Community

Professional Firefighters of Wisconsin Partnership

The Professional Firefighters of Wisconsin (PFFW) Charitable Foundation partnered with Rogers Research Center for the second year in a row to facilitate a state-wide survey for professional and volunteer Fire and EMS professionals. The survey examines how Fire and EMS staff experience and respond to critical stress they experience on the job and potential associated behavioral health concerns. The confidential survey considers county and years of service, any critical incidents or traumatic events experienced, thoughts of self-harm or suicide, sleep issues, substance use, utilization of mental health services, and perceptions about mental health stigma within the field. The survey initiated in 2020 had 777 respondents, and more than 1,000 participated in the most recent 2021 survey. The survey results continue to inform the PFFW about areas of need across the state and will help drive initiatives to provide additional support and services to frontline Fire and EMS workers in Wisconsin. We are grateful to support these critical efforts and look forward to reporting the results of the 2021 survey in February 2022.

Social Media Study

Social media is a part of everyday life for most people, but we know it is not always beneficial for our well-being. Recent findings suggest that individuals with mental illness, especially adolescents, are using social media for extended periods of time and in ways that are negatively impacting them. Through a generous gift from the Once Upon a Time Foundation, the Research Center has begun data collection to examine social media behavior among teenagers 13 to 17. The study seeks to explore the frequency, basic usage patterns, and reasons adolescents use social media. Data will be collected from both children and their parents or guardians to evaluate – in addition to the child’s social media use metrics – how informed adults are on their child’s self-reported social media usage. A few hypotheses are being tested with this study, 1) as symptoms of depression or social anxiety increase, adolescents will be more likely to use social media to avoid tending to their mental health, and 2) with an increase in symptoms, guardians will be less aware of the time their adolescent child spends on social media each day. Our clinicians often observe misuse of social media among our adolescent patients, but there had not been an instrument or systematic way to capture and use that data in a meaningful way to assist with treatment. This study aims to change that.
COVID-19 required both medical and behavioral health providers to adapt and transition care to virtual options for the safety of patients and employees. During the peaks of the pandemic, Rogers Behavioral Health began providing care virtually across the nation through Rogers Connect Care - a telehealth treatment option for people seeking intensive mental health care. In 2021, Rogers Research Center took a deeper look into the effectiveness of remote treatment during the pandemic. Two published studies examined symptom reduction across multiple service lines (OCD and anxiety, addiction, eating disorders, depression and other mood disorders, and trauma recovery) and for both partial hospitalization and intensive outpatient levels of care. Both studies demonstrated that patients received the same level of symptom reduction in telehealth treatment compared to in-person. A notable difference between the two groups was that individuals who received telehealth required approximately two more days in treatment than those who received in-person care.

“Considering the limited evidence supporting telehealth for higher levels of care, combined with concerns about the inherent treatment challenges associated with the pandemic, it was critical to investigate whether patients who received treatment virtually experienced the same reduction in symptoms as patients who had received in-person care before the pandemic. These results are critical for people who may be leery of telehealth treatment and are waiting for the pandemic to be over before seeking the help they need.”

- Caitlin Pinciotti, PhD. Licensed Clinical Psychologist and Associate Research Psychologist

**Clinician Spotlight**

Dr. Riemann is a leading expert in the assessment of OCD and anxiety disorders, as well as the use of cognitive behavior therapy (CBT) treatment. Dr. Riemann has provided leadership and guidance to the Research Center and team since its inception. Dr. Riemann and the Rogers Research Center continue to investigate the impacts of attention retraining with individuals who have obsessive-compulsive disorder (OCD).

The RetrainOCD smartphone application is a unique, attention retraining tool that Rogers has integrated for use alongside treatment as usual, as well as a potential tool for patients to use after care in effort to maintain reduced symptoms. Attention retraining has shown promise as an effective means of reducing anxiety symptoms, but not much research has been conducted to investigate its impact on OCD symptoms. In a study with over 70 patients, Dr. Riemann and the research team have found promising results among patients who use the app in conjunction with treatment as usual, especially in reported OCD symptoms at discharge.
Laboratories

Genetics and Neuroscience in Mental Health

Biobank

In 2022, the research team will begin collecting biospecimens for the Research Center's Biobank. The Biobank will be the catalyst for an increased focus on genetics research and for its role in precision medicine. A person's genetics helps us understand the underlying biological contributions to complex mental health disorders and bring us closer to personalized medicine in mental health treatment.

Rogers specializes in the treatment of acute mental health disorders; many of which are debilitating for individuals in our care. There is simply not enough available data for these disorders within existing biobanks. The genetic data from our patients, especially paired with their treatment and clinical outcomes data, is critical to narrowing gaps in the research field.

“Rogers Research Center is committed to building a world-class biobank. Rogers Biobank has been designed to enable the advancement of research initiatives focused on understanding the genetics of mental and behavioral health conditions. Our center stores biological samples donated by patients, which are utilized by researchers to develop new and innovative approaches to providing high quality patient care based on the biological data.”

- Sheldon Garrison, PhD. Research Scientist

Neuroscience Lab

The Research Center’s Neuroscience Lab is home to our NeuroElectrics Starstim 32-channel transcranial electrical stimulator (tES) and electroencephalogram (EEG) system. Our interdisciplinary research team is uniquely equipped to bridge the gap between neuroscience and behavioral health to better understand the neurobiological basis of psychiatric disorders.

In the short-term, EEG can help inform us whether treatment enhancements are successful in stimulating change at the neural level. In the long-term, we will construct longitudinal data sets pairing patients’ neural data with their self-reported answers to clinical assessments during treatment. By incorporating objective neurobiological data with subjective self-report symptomology data, we can work toward predicting which patients may benefit most from treatment enhancements.

“The advantages of an in-house neuroscience lab are numerous. Currently, the insights we draw about patient outcomes come from the self-reported assessment data. With the neuroscience lab, we can collect objective biodata, see what’s happening in the person’s brain at admission, during treatment, and again at discharge to capture changes without requiring the person to have processed them and shared them with us through language. When we understand what happens at the neural level in real-time, we can leverage big data principles to predict for that person what interventions and what mechanisms might be most appropriate to help them be most successful.”

- Nyssa Bulkes, PhD. Data Scientist
Research Team Experience and Interdisciplinary Strength

Rogers’ team of scientists and researchers has a broad range of experience spanning areas of neuroscience, data science, and psychology. In collaboration with over 30 clinical investigators across Rogers Behavioral Health, our full-time research staff along with our administrative staff and research support team bring decades of experience and wisdom from different areas of healthcare and research. We added five new team members over the last year - bringing our team to 16 full-time research professionals - with plans to continue growth in 2022. Meet our full-time investigators:

**Dr. Caitlin Pinciotti** is the Research Center’s licensed clinical psychologist and associate research psychologist. Dr. Pinciotti specializes in clinical work with individuals with trauma and/or OCD in all levels of care. Her research primarily focuses on factors that facilitate or impede recovery from trauma, PTSD, and OCD with a secondary focus on mental health inequities in gender and sexual minorities.

*View Dr. Pinciotti’s CV*

**Dr. Sheldon Garrison** is a research scientist at Rogers Behavioral Health. Dr. Garrison has more than 15 years of experience in health care, the pharmaceutical and life sciences industries, and academia. His research is focused on understanding genetic involvement in psychiatric disorders and how those genes influence treatment response for affected patients. Dr. Garrison provides oversight for the Research Center’s Biobank.

*View Dr. Garrison’s CV*

**Dr. Nyssa Bulkes** is a data scientist with the Research Center with over 10 years of academic and commercial research experience. Dr. Bulkes is heavily involved in research study design, building custom machine learning models, as well as data mining and analysis of large-scale clinical datasets. As a trained cognitive scientist, Dr. Bulkes oversees the Neuroscience Lab within the Research Center.

*View Dr. Bulkes’ CV*

If you are interested in partnering with the Rogers Research Center and our researchers, please visit our [Research Center’s Webpage](#) for more information.
A Message from Clinical Leadership

The work of Rogers Research Center has accelerated over the past year and the team has achieved several key milestones, including the move to a brand-new facility in the Ladish Co. Foundation building, the addition of several talented team members and the initiation of dozens of new and highly relevant clinical studies resulting in numerous scientific publications.

As the team continues to grow and we work to solidify long-term partnerships, we are building a research organization that can become the premier behavioral health research center in the world. The research is strategically targeted at discoveries and insights that will bring evidence-based improvements to Rogers patients.

The research center vision aligns with the mission of the hospital, to help us predict and prevent mental illness, and help patients get better faster while sustaining recovery for a lifetime. We are incredibly proud of the outcomes the research team has delivered this year and look forward to many years of growth and critical deliverables to the field of behavioral health.

Bradley C. Riemann, PhD
Chief Clinical Officer and Chief Operating Officer,
Rogers Behavioral Health

Thank You Individual Donor and Foundation Support

Research at Rogers is made possible in part by individual donor and foundation support. We have grateful patient families who give generously to support the work we do here. To date, we have raised nearly $2.4 million in donations to support research here at Rogers.

“As parents of a daughter who has struggled with mental health challenges, these questions still keep us up at night. We dream of the day when mental health disorders can be predicted and prevented, when treatment is readily accessible to all, and when it takes fewer days of treatment to achieve long-term recovery. Rogers Behavioral Health shares that same vision. With advances in computing power and data mining, combined with electronic medical research, Rogers has the unique ability to uncover insights into patient populations that are not possible through conventional methods. Rogers’ commitment to evidence-based practices saved our daughter’s life. Yet, there is so much more to learn and so many more lives to be saved through research. We need to think BIG! We support research at Rogers because they are in the position to dig deep and find answers.”

– Diana Tony, Donor
Publications 2021


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