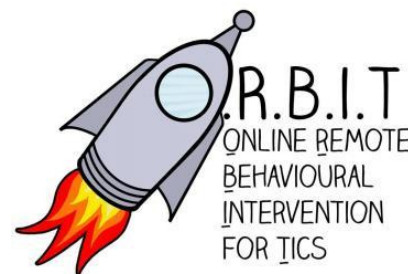


# In the news...

The Institute of Mental Health seeks to help transform the understanding and treatment of mental illness.

We are a partnership between two highly respected organisations, Nottinghamshire Healthcare NHS Foundation Trust and The University of Nottingham.

## Online therapy could bring hope to thousands of young people living with tics and Tourette's



A new NIHR-funded study, **ORBIT-UK**, will bring together teams from the NIHR's MindTech HealthTech Research Centre, the University of Nottingham, Great Ormond Street Hospital, East Midlands Health Innovation Network, commercial partner Blüm Health Ltd, and patient organisations Tourette Action and Neuro-diverse.org, to take previously researched and evidence-based online behavioural therapy intervention for tics in young people (known as **ORBIT** – Online Remote Behavioural Treatment for Tics study) and turn it into a patient-ready digital tool deliverable at scale within the NHS.

With funding from the NIHR Invention for Innovation (i4i) Programme, the new 36 month project will be led by Dr Charlotte Hall (Principal Research Fellow University of Nottingham/MindTech) and Professor Chris Hollis (Professor of Child and Adolescent Psychiatry and Digital Mental Health/Director of MindTech).

*Continued on page 2...*

## In this issue...

- Follow us on LinkedIn
- BRIGHtMIND trial publishes results
- New joint Directorship at the Centre for Translational Neuroscience
- NEON-O trial published in World Psychiatry
- New antisocial personality disorder research published

# Welcome

Our **March newsletter** shares updates and achievements from across the Institute of Mental Health and showcases the best in mental health research.

**Professor Martin Orrell**  
Director, The Institute of Mental Health



**I am delighted to announce that the WHO Collaborating Centre for Mental Health, Disability and Human Rights based at the IMH has been redesignated for another four years from the 1st April 2024.**

The successful redesignation builds the work led by Professor Peter Bartlett and I to support the WHO in its efforts in improving mental health and human rights around the world. This includes managing the global MindBank data base of mental health laws and policies, advising the WHO and its associated countries on mental health law, and leading on the development of guidance for good practice and human rights in dementia services across the world.

In the newsletter, MindTech also launches the next research project from the hugely successful ORBIT programme, and already this year, results have been published from two leading

research studies – the treatment resistant depression study, BRIGHtMIND ([page 03](#)), and the mental health recovery narratives trial, NEON-O ([page 08](#)). Our events programme continues to grow over the coming months and watch out for more information about our annual Research Day in May this year, as well as monthly events from a variety of research teams and visiting guests.

## We're now on LinkedIn!

The Institute of Mental Health is now on LinkedIn. Give us a follow to keep up-to-date with more research, events and news from the Institute in between major newsletter releases.

To find our official page search for [linkedin.com/company/institutemh](https://www.linkedin.com/company/institutemh)

Please visit our [website](#) or follow us on Twitter [@InstituteMH](#) for all our latest news and updates.

...Continued from page 1

Tic disorders are common, affecting 1% of children and young people in the UK (110,000), and impact daily on educational functioning and mental health. Tics are involuntary movements or sounds which frequently co-occur with other psychiatric conditions. Clinical guidelines state behavioural therapy is effective and should be the first-line treatment for tics, however, in the UK, over 80% of young people (88,800) with a tic disorder receive no treatment at all due to a lack of trained therapists.

The online delivery of therapy can close this treatment gap, by increasing access without requiring more highly trained therapists. This was demonstrated in the [ORBIT trial](#); a large randomised controlled trial delivered from 2017 – 2021 with findings recently published in [The Lancet](#) demonstrating that a 10-week online behavioural therapy programme for tics, with low-level therapist support, improved tic symptoms long-term and was cost-effective. The therapy was also highly acceptable to the trial participants with excellent uptake.

Professor Chris Hollis outlined the necessity for this new project:

*"This project represents a huge step forward in our ability to improve access to evidence-based care for thousands of young people with tic disorders, who currently have little or no access to tic behavioural therapy."*

*"By translating world-leading research from the MindTech ORBIT trial into a tangible 'NHS-ready' digital product, we can address a huge unmet need. The project brings together world-leading experts from clinical practice, academia and industry to create the UK's first guided online digital therapy for tics available for patients within the NHS."*



Read more about the project and its partners [www.mindtech.org.uk](https://www.mindtech.org.uk)

# BRIGHtMIND trial publishes results showing effective treatment for severe depression

The **BRIGHtMIND** trial published the full findings from the five year major clinical trials in Nature Medicine. The study was led by **Professor Richard Morriss**, Director of the Institute's Centre for Mood Disorders, and funded by the **National Institute for Health and Care Research (NIHR)** and the **Medical Research Council (MRC)**.

The BRIGHtMIND trial was sponsored by Nottinghamshire Healthcare NHS Foundation Trust conducted in five centres across England, with over 40% of the trial participants recruited by Notts Healthcare's Research Delivery Team. The study used MRI and tracking to guide the delivery of magnetic stimulation to the brain via the scalp, to show that patients with severe depression or 'treatment-resistant depression' (TRD) could see their quality of life vastly improved and their symptoms ease for at least six months. Over two thirds of participants responded to the treatment, with a third showing 50% improvement in terms of their symptoms and a fifth managing to move into remission and stay there.

The trial was launched following preliminary research conducted by the Centre for Neuromodulation Services (based within the Trust and established by Dr Sudheer Lankappa who also worked on the BRIGHtMIND trial), with funding for the initial study also provided by the Trust.

Professor Richard Morriss commented on the life-changing effects this treatment can have:

*"Patients who responded to the treatment could stay relatively well compared to how they were previously, with as little as one or two treatments a year. The changes we saw were substantial, not only in reducing their depression symptoms, but they were large enough to improve concentration, memory, anxiety and subsequently their quality of life. The results have already persuaded three NHS Mental Health Trusts, including Nottinghamshire Healthcare NHS Foundation Trust, to routinely offer new TMS services for treatment resistant depression."*

One of the participants of the trial said:

*"It has been a privilege to work alongside the research and clinical teams and feel that you are making an important contribution to such a groundbreaking study from a patient perspective. The next challenge is to make transcranial magnetic stimulation a standard and universally available treatment option for difficult to treat depression."*



The publication of the trial's results has reinforced the reputation of Nottingham as a centre of Transcranial Magnetic Stimulation excellence, a wonderful achievement! The research has been shared globally by various news outlets including the Independent, U.S. News and World Report and UKRI.



**Read the full write up of the story on the Institute's website**

# University of Nottingham wins Research Project of the Year at Times Higher Education Awards

**The University of Nottingham scooped STEM Research Project of the Year at the Times Higher Education (THE) Awards for pioneering research to develop a new non-invasive treatment for Tourette's Syndrome (TS).**

Professor Stephen Jackson and Dr Barbara Morera from the University of Nottingham's School of Psychology and Professor Georgina Jackson from the Institute of Mental Health, led research that used repetitive trains of electrical stimulation to the median nerve (MNS) at the wrist to entrain rhythmic electrical brain activity. The research showed that rhythmic MNS is sufficient to substantially reduce tic frequency and tic intensity, and remove the urge-to-tic, in individuals with TS. A prototype wrist device has been developed and proved in clinical trials earlier this year to reduce the amount and severity of tics for people living with TS.

THE Awards judges commented: "Building on high-quality science, the Neupulse neuromodulation device has improved the lives of many living with Tourette's syndrome. It has received widespread media attention, is being effectively commercialised, and researchers have received thousands of enquiries from around the world."



(L-R) Dr Barbara Morera, Professor Stephen Jackson and Professor Georgina Jackson receiving their award at the Times Higher Education Awards, presented by Sandi Toksvig (far left)



**improviNg Tic services in EngLAnd**

**Do you want to make a difference to the services for children and young people with tic disorders?**

The INTEND study aims to develop a service model for children and young people with tics. As part of this, we are conducting an online survey of healthcare professionals to evaluate their experiences of assessing/treating children and young people with tics. We would like to hear from clinicians with all levels of experience. Your input is essential to making a difference.



**The survey will take between 10 to 30 minutes to complete, depending on experience level and is open until June 2024.**



**[Read more about the study](#)**

If you have any questions, please email [ms-intend@nottingham.ac.uk](mailto:ms-intend@nottingham.ac.uk)

# Latest dementia blogs

New dementia-related blogs have been published on the “Dementia Day-to-Day” blog, which is hosted on the Institute’s website, covering topics including LGBTQ+ dementia care, the impact of AI on dementia care and treatment and advances in the use of reminiscence therapy.



*The following is an excerpt from the ‘[Dementia and AI](#)’ blog post written by Meghan Powers:*

**AI is a rapidly evolving field, with huge potential. Though most of us think of ChatGPT and AI artwork when we consider this buzzword of the 2020s, AI is showing huge potential in healthcare, with a promising prognosis for dementia care and treatment.**

## **AI and independence**

The loss of independence resulting from dementia is frustrating for those living with dementia and upsetting for their loved ones. However, AI may be able to prolong the time which a person with dementia can live independently and quell some of the worries of their loved ones. The [UK Dementia Research Institute](#) have developed the ‘Minder’ project, in collaboration with Imperial

College London. Minder is a smart home care system which aims to promote independent living. A person living with dementia is given wearable sensors and environmental sensors are placed around their home, which connect to a Minder app. The app sends sensor data to a monitoring team, consisting of AI to monitor trends in a person’s behaviour and to a clinical team. The AI remotely detects signs a person is at risk in their home, for example changes in walking that could increase the risk of a fall (via motion sensors), or increased wandering (via door sensors). Smart plugs may also be used to monitor use of appliances related to eating and drinking, such as kettles and microwaves. The clinical monitoring team then inform the individual’s carer according to their contact preferences.

The multidisciplinary ‘[Minder](#)’ team are currently developing augmented hearing aids which can continuously monitor a patient’s brain activity and heart rate, which could contribute to the wearable sensor technology. Furthermore, balance could be monitored via these sensors to indicate fall risk and audio cues could be provided through the device to support independence. Currently, the hearing aid is being revised in healthy volunteers prior to use in dementia patients, and the Minder app is undergoing early trials with dementia patients and their families.



**Read the rest of the ‘[Dementia and AI](#)’ post, as well as the other blog posts on the Institute website**

## New joint Directorship at the Centre for Translational Neuroscience

At the end of 2023, Professor Peter Liddle stepped down as Director of the Centre for Translational Neuroscience. Following this, we would like to extend our congratulations to

both Dr Mohammad Zia Ul Haq Katshu and Dr Marcus Kaiser on their new appointed positions as Joint Directors for the Centre for Translational Neuroscience.

## Funding success for neuromodulation study

Professor Marcus Kaiser and Dr Mohammad Zia Ul Haq Katshu (Co-Directors of the Institute's Centre for Translational Neuroscience) have been awarded £79,517 by the Neuromod+ foundation. They will study the impact of novel closed-loop focussed ultrasound stimulation techniques in improving cognition in healthy participants. This work will form the basis for clinical applications

in patients with neuropsychiatric conditions with significant cognitive impairments which are largely resistant to current treatment approaches. The Neuromod+ Network is funded by EPSRC and MRC and is managed through a consortium of four universities. Funding calls support new collaborative research partnerships and developing novel technologies for neuromodulation therapeutics.



## Visit of ARIA

Jacques Carolan, programme manager for neurotechnology at ARIA, and programme specialist Mike Farrar visited Nottingham in February to learn more about the Centre for Translational Neuroscience's research on neuroimaging and neuromodulation for mental health. They visited several labs learning more about non-invasive brain stimulation applications for depression, schizophrenia, and Tourette's syndrome. ARIA, focusing on developing breakthrough technology in the UK, will announce funding calls related to brain stimulation technology later this year.



Advanced  
Research  
+ Invention  
Agency

# ARIA

## Remedi's restorative mentoring intervention aimed to reduce violent behaviours and crime among young people, through mentoring and restorative justice

**Professor Eddie Kane, Director of the Centre for Health and Justice recently published a report in partnership with University of Birmingham, funded by the Youth Endowment Fund (YEF), piloting research for a randomised controlled trial into the REMEDI intervention programme.**

Remedi's restorative mentoring (RM) intervention aimed to reduce violent behaviours and crime among 10-17 year olds. The programme was targeted at children who have previously displayed violent behaviour or have committed a violent offence. The intervention consists of three components: mentoring, restorative-based family support, and restorative justice. Restorative justice is a process which supports the victim of a crime and the person responsible to communicate, repair harm, and find a positive way forward. It focuses on making the person responsible aware of the harm they caused and helps them to make reparations. The young people involved received 12 weeks of mentoring, with three to four interactions per week from a trained Remedi mentor.



Find out more about the programme on the YEF website

## Positive impact report for Focus ADHD

A new report has captured the learning and insight from the Health Innovation Network's national 'Focus ADHD' programme. 'Focus ADHD' is a national innovation programme aimed to improve how attention deficit hyperactivity disorder (ADHD) is diagnosed in children and young people. The programme has achieved outstanding results and has already positively benefited around 65,000 patients across 149 NHS sites in England. The new document published this week by the East Midlands Health Innovation Network

summarises the positive impacts achieved and is intended to be a practical guide for anyone seeking to adopt any innovative or transformative programmes. Back in 2021, Dr Charlotte Hall (NIHR MindTech, University of Nottingham) and Caitlin McKenzie (Research Support Officer, Institute of Mental Health) were responsible for evaluating the Focus ADHD programme establishing its sustainability and benefits of the service within NHS Trusts implementing the programme.

The programme has achieved outstanding results... positively benefited around **65,000 patients** across **149 NHS sites** in England.

# NEON-O Trial

The findings from the NEON study led by Professor Mike Slade's Recovery Research Team, was published in World Psychiatry, with the results of the trial showing participants had greater hope and routes to a brighter future. The trial was funded by the National Institute for Health and Care research (NIHR) and was the first mental health trial in the world to report findings on an intervention making use of mental health recovery narratives.

The NEON-O Trial compared the experiences of participants who were randomly chosen to receive immediate access to the web-application, and a control group of participants who were given access after one year. Participants who were given immediate access experienced an increase in their quality of life, and an increased perception that their life had meaning. The resources needed to provide these benefits were assessed and found to be in a range that would be acceptable to the NHS, which clears the way for the NEON Intervention to be incorporated into health service practice. For a smaller group of participants who were already being treated for mental health problems by the NHS, then receiving immediate access saved the NHS resources.

Read more about the NEON study on the IMH website, which was also featured in an informative article in Positive.News. As well as a more in-depth exploration in the newest feature on the IMH blog, discussing whether personal accounts of mental health problems and recovery can help others.

Personal narratives into healthcare interventions is becoming an important topic of research at the Institute; Institute members have also recently published a trial looking at the use of alcohol misuse recovery narratives in treating alcohol misuse, in the journal Lancet eClinicalMedicine.

# New antisocial personality disorder research published

**Dr John Tully published new research in Molecular Psychiatry, showing that male violent offenders with antisocial personality disorder (ASPD) have a significant reduction in striatal glutamate/GABA ratio, compared to healthy non-offenders.**

Dr John Tully, Clinical Associate Professor in Forensic Psychiatry at University of Nottingham, recently published a paper titled 'Impaired striatal Glutamate/GABA regulation in violent offenders with antisocial personality disorder and psychopathy' in Molecular Psychiatry (latest Impact Factor 13.4).

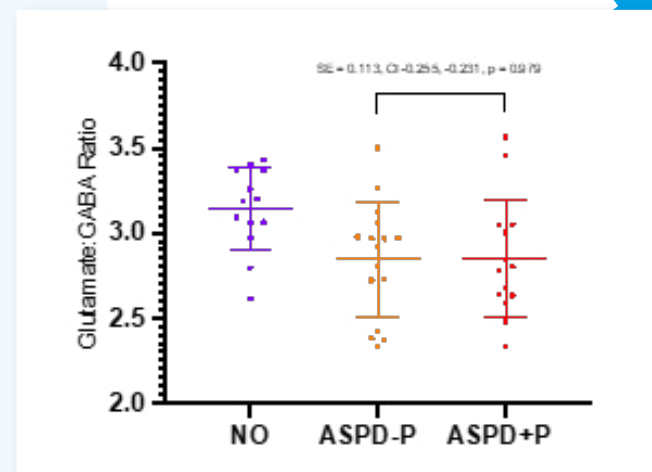
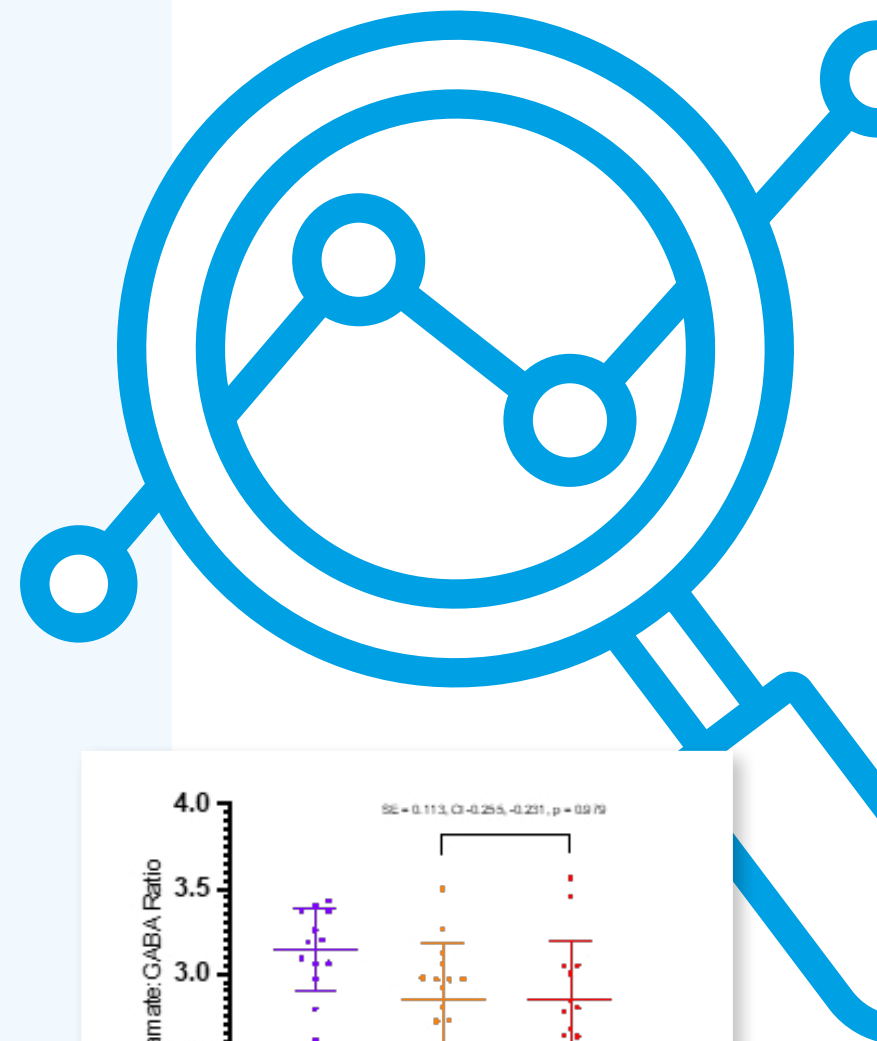
Violent crime has enormous implications for society at a human and economic level. The majority of this violence is committed by a small group of men who meet diagnostic criteria for antisocial personality disorder (ASPD) and about one third of this group also meet criteria for psychopathy. People with ASPD do very poorly in most life outcomes, including

employment, success with families, and physical health. These individuals offend earlier, more often, and more severely throughout their lifetimes, and have even worse personal outcomes. There is a scarcity of treatment options for these people and a lack of good evidence to support those that we have.

Previously, very few studies have looked at glutamate or GABA levels in the brain in ASPD and this study has shown, for the first time, abnormal regulation of glutamate/GABA in the striatum in violent offenders with ASPD, with and without psychopathy. Giving better understanding of how specific brain functions like decision-making may be impaired by neurochemical dysfunction. In order to develop effective treatments that might correct this abnormality, we must continue to develop a better understanding of the biological mechanisms underlying the condition to show a clear link between glutamate/GABA abnormalities and behaviour.

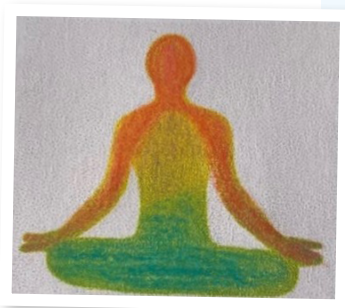


**John released a blog post via Springer Nature to further explain the research and findings**



Graph showing the levels of Glutamate/GABA ratio for group of non-offenders (NO), the group with ASPD without psychopathy (ASPD-P) and the group with ASPD with psychopathy (ASPD+P).

## Introducing the Mindful Life-Well at Work study



**The National Institute for Health and Care Excellence (NICE) has recommended Mindfulness-based and Stress Reduction Psychoeducation (SRP) interventions for reducing stress and improving staff wellbeing.**

Led by Dr Elena Nixon, an NIHR ARC-funded trial is underway to assess whether Mindfulness-Based Cognitive Therapy- for life (MBCT-L) is superior to SRP in terms of its effectiveness as the two programmes have not been previously compared. Participants are randomly allocated to either an online 9-week MBCT-L or a standard usual care online 4-week SRP programme. Superiority will be assessed in terms of change on the primary outcome of staff perceived stress, from baseline to 20 weeks post randomisation. The trial has been co-designed with patient and public involvement representatives and will also involve interviewing a subsample of participants to further explore barriers and drivers to intervention uptake and engagement.

The study is open to staff from participating public care sites across the UK, including all staff employed by Nottinghamshire Healthcare NHS Foundation Trust and Nottingham University Hospitals NHS Trust.



To find out more, please contact  
[well-at-work@nottingham.ac.uk](mailto:well-at-work@nottingham.ac.uk)

## Using a Novel Gameplay Intervention to Target Intrusive Memories After Work-Related Trauma: Iterative Qualitative Analysis of Intensive Care Unit (ICU) Staff Experiences

**Many ICU staff experience intrusive memories (IMs) following work-related traumatic events, which can lead to long-term mental health outcomes and impact work functioning.**

The GAINS study tested a brief, digital imagery-competing task intervention (including computer gameplay) with the aim of reducing the recurrence of IMs in ICU staff. The randomized controlled trial compared access to this intervention for 4 weeks with usual care followed by delayed access to the intervention.

The project was a collaboration between NIHR ARC East Midlands, NIHR MindTech and P1Vital. A recently published paper (written by [Patel P](#), [Brown S](#), [Guo B](#), [Holmes EA](#), [Iyadurai L](#), [Kingslake J](#), [Highfield J](#), and [Morris R](#)), provides findings from the analysis of acceptability data from all trial participants, as well as more

detailed findings from interviews with a subset of 16 participants. Overall, staff found the intervention easy to use, helpful, highly acceptable and noted a reduction in frequency or intensity of IMs. However, findings highlighted barriers that ICU staff experienced: stigma, feeling weak for seeking help, not wanting colleagues to know they were struggling, and skepticism. In addition, staff raised practical issues for implementation, with further refinement needed to improve the adoption and reach of this intervention.



[Read the full paper on the JMIR Publications website](#)

## Trent Study Day 2023

At the end of November, the Institute and the Forensic Care Group of Nottinghamshire Healthcare NHS Foundation Trust and the Institute hosted their annual Trent Study Day conference at the DoubleTree Hilton.

This year's focus was 'Physical health in secure mental health settings' and was aimed at professionals working in the field of forensic mental health and the criminal justice system including clinicians, managers, commissioners and others. The attendees heard from several speakers and industry experts, including Dr Martin Clarke, Research support and Training Manager for

Nottinghamshire Healthcare NHS Foundation Trust, Ivan Cartwright, HM Area Coroner for Leicester City and South Leicestershire Coroners' Court and Rob Furby, Head of Service in Physical Healthcare for Nottinghamshire Healthcare NHS Foundation Trust.

To view highlights from the day, search #TSD2023 on X, formally Twitter.



**Read the 'Evidence Update for Physical Health in Secure Mental Health Settings' here.**

*This document was supplied by Nottinghamshire Healthcare NHS Trust Library and Knowledge service.*

**Look out for advertisements to attend this year's edition of Trent Study Day 2024.**



## New book uncovers “social geography” of psychosis

Dr Hugh Middleton, retired NHS medical psychiatrist and Associate Professor for the University of Nottingham's School of Sociology and Social Policy recently published a book titled 'Toxic Interactions and the Social Geography of Psychosis'.

As part of The International Society for Psychological and Social Approaches to Psychosis Book series, the book is a review of quantitative research revealing how urban living, trauma, ethnicity, stress and family life influence mental health, wellbeing, and the risk of troubling psychotic experiences.

Each of the areas is reviewed in search of their social implications, and a constructivist approach identifies their common threads. The contributions of newer psychotherapeutic approaches such as Open Dialogue and Recovery programmes are considered, and a consistent interpretation emerges; that is not the observable features of disturbed mental state that deserve key attention, but how these are generally understood by others, and in particular the 'client's' close associates.

*Toxic Interactions and the Social Geography of Psychosis* will be welcomed by all who find conventional approaches to mental health difficulties unsatisfactory, whether that is as a practitioner frustrated by the counter-productive expectations of their institutional setting, an academic exploring different perspectives a 'service user' disappointed by not experiencing the care they feel is needed, or as third party perplexed by the contradictions of contemporary psychiatry.



## The Mental Health Citizen Science Project

How do you self-manage your mental health challenges and life stresses? Do you have a lived experience of mental health or care for someone who does? The Mental Health Citizen Science Project want to hear from you.

Whether you manage through sports, crafts, meeting with friends or something else, the Mental Health Citizen Science project is working to understand the most common ways people with lived experience manage their mental health challenges. The findings from the project will enable mental health services to better support future service users.

The survey is a multi-choice questionnaire and will take approximately 5-10 minutes. To take part, you must be 18 years or older and a resident in the UK.



To learn more about the project, or to participate you can visit their website



@MentalHealthCsi

Alternatively, scan the QR code:



## Art at the Institute:

### Upcoming exhibition: What's Up With Everyone? exhibition opening

From the successful project 'What's Up With Everyone?' led by Professor Paul Crawford, Director of the Social for Social Futures in collaboration with Aardman, we will be opening a new exhibition in March 2024 celebrating the creative process that accompanied the research.

The exhibition will showcase the project development of the five characters; Merve, Tai, Alex, Charlie and Ashley, each with a different focus on a topic young people struggle with, including loneliness and isolation, perfectionism and independence. The exhibition will showcase some of the valuable input and research created alongside the young people involved in the PPI groups, which ultimately helped to shape the final outcome.



# Centre for Social Futures seminar: Asylum Development and the East Midlands, 1820-1920

**Room A06, The Institute of Mental Health, NG7 2TU**

Guest speaker Dr David Beckingham, Associate Professor in Cultural and Historical Geography at the University of Nottingham, will be discussing the growth and diversification of dedicated institutional spaces, for the treatment of mental ill health in Nottingham and surrounding areas.

Surviving published sources reveal the therapeutic and environmental ideas that inspired asylum development, as Parr and Philo show in their 1996 study of Nottingham, as well as the bureaucratic

pressures that reshaped asylum provision and the experiences of patients. I draw on examples from records held in the university archives at Kings Meadow to examine the relationship between authority, diagnosis and treatment, and introduce asylum physician Andrew Blake to explain my research interest in the particular role of alcohol as a cause or manifestation of ill health.



**To register to attend this event, please contact the IMH reception team to reserve your seat.**



# A Workshop on Safety and Adverse Events in Digital Mental Health



## The Institute of Mental Health, NG7 2TU

This dynamic workshop brings together experts from the MHRA, leading universities like University of Nottingham and King's College London, and industry pioneers to explore critical aspects of ensuring safety and efficacy in digital mental health interventions.

Open to all those involved in evidence generation including clinicians, researchers, and developers for digital mental health, this event will provide an opportunity to further explore the safety of digital mental health interventions and how adverse events are identified and categorised during trials. It will provide valuable findings from reviews in these areas as well as practical guidelines to inform best practice.

### Key Topics Include:

- Defining Software as a Medical Device (SaMD)
- Processes for Clinical Investigations of SaMD
- Addressing Safety and Adverse Events in Clinical Trials
- Guidelines for Best Practice in Digital Mental Health

### What You'll Gain:

- Deep insights into regulatory compliance and standards for SaMD
- Understanding the intricacies of clinical investigation processes
- Valuable findings from reviews on safety and adverse event capture
- Practical guidelines to inform best practices in development and deployment

Engage in lively discussions, network with fellow experts, and collaborate on shaping the future of digital mental health care.

Don't miss this opportunity to be at the forefront of digital mental health innovation! Reserve your spot now and join us in driving positive change in mental healthcare.

