



**Royal College of Psychiatrists
Faculty of Academic Psychiatry
Trainees Conference**

28 April 2021

Conference Booklet

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General Information

Accreditation

This conference is eligible for up to 6 CPD hours, subject to peer group approval.

Certificates

Certificates of attendance will be emailed to delegates after the conference.

Feedback

A detailed online feedback form can be found by visiting

<https://www.surveymonkey.co.uk/r/9KPDLTG>

All comments received remain confidential and are viewed in an effort to improve future meetings.

Social Media

If you wish to tweet about the conference use @rcpsychGAP #gapspring21

Posters

The posters can be viewed [here](#)

Conference Resources

Please see the following link to access the [conference resources](#) webpage.

Speaker abstracts and biographies

28 April 2021

Session 1

Chair

Dr Lindsey Sinclair

Dr Lindsey Sinclair is an Alzheimer's Society funded clinical research fellow at the University of Bristol. Having made a bid to be one the of longest serving academic trainees ever (or so it felt at the time) she is now on a post-doctoral fellowship looking at the relationship between depression and dementia.

Welcome

Professor Vivienne Curtis

A short welcome to the meeting and context for academic training.

Professor Vivienne Curtis has a broad background in educational and academic leadership. She is currently the Head of School of Psychiatry for HEE London and is an associate academic Dean at both RCPsych and HEE. She is committed to improving recruitment and retention in Psychiatry, promoting equality, diversity and inclusion and developing academic opportunity for all.

Careers in Academic Psychiatry

Dr Mandy Johnstone

Academic psychiatrists combine research and teaching with clinical duties and deliver patient care alongside research and teaching. It can be a stimulating career choice and provides opportunities to make a real difference to patient care in a variety of settings as well as offering flexibility. In this talk I will discuss the different types of clinical research career pathways in psychiatry, the decision drivers, enablers and barriers reflecting from my own experience.

Dr Mandy Johnstone completed her PhD in developmental neurobiology at King's College, London and qualified in medicine at the University of Glasgow. She trained as a psychiatrist at the Institute of Institute of Psychiatry, Psychology and Neuroscience (IoPPN) and then in Edinburgh as a Wellcome Trust Clinical Research Fellow and Honorary Consultant Psychiatrist before returning to South London & Maudsley NHS Foundation Trust & the IoPPN where she is a Physician Scientist/Consultant Psychiatrist

Session 2

Chair

Dr Oli Sparasci BMBS, BSc, PgCert, MRCPsych, ACF ST3 in Old Age Psychiatry, University of Manchester; Early Career Researcher, Greater Manchester Dementia Research Centre; Psychiatric Trainees Committee Representative for the North West and BMA LNC Rep for the NW Lead Employer & Pennine Care NHS FT

Panel Discussion: Science in the media. How, when and what you can do

Dr David Robert Grimes, Dr Tim Williams and Tom Whipple

Dr David Robert Grimes is a physicist, cancer researcher, and author. His work encompasses everything from how tumours use oxygen to the impact of disinformation and conspiracy theory on public understanding. He has a strong focus on public understanding of science and medicine, contributing to BBC, RTE, The New York Times, The Guardian, Scientific American, The Irish Times, and PBS. He received the 2014 Maddox prize, and his first book, "The Irrational Ape - why we fall for disinformation, conspiracy theory, and propaganda" is out now from Simon & Schuster UK.

Dr Tim Williams is a psychiatrist based in Bristol, UK. He dual trained as an academic and clinical trainee and has maintained both these interests in his subsequent career. His main focus has been addiction psychiatry although he is currently also running an inpatient perinatal unit. He has been a clinical director and briefly medical director for his NHS trust before stepping down from management roles to and going part-time in order to juggle kids, clinical work and research. His research interests include drug and alcohol misuse and psychedelic medicine. He has rather stumbled into media appearances by his inability to

say no to things that sound interesting and appears regularly on local news, occasionally in the press, as well as popping up on various shows to do with drugs, alcohol and psychedelics.

Tom Whipple is the science editor at The Times. His career has taken him to the top of Mont Blanc and to the tunnels beneath Cern. He has investigated the effects of radiation in the forests around Chernobyl, and the effects of heat in the world's hottest sauna in Finland. He didn't stay in very long. He has reported on three climate change conferences, and only been arrested at one of them. He has interviewed the woman who invented the Crispr gene editing system and seen the greenhouses where it is being used to make super-bananas. He has a mathematics degree.

NIHR Research and Career Development Funding post COVID

Peter Thompson

This talk will go through the various funding streams available from NIHR for research and career development in mental health. There will be a focus on highlighting areas of importance for NIHR post COVID and emphasizing the need to attract and fund research across a range of health and care issues including mental health. The talk will also cover other areas of support from NIHR including the recently established mental health incubator.

Peter Thompson This talk will go through the various funding streams available from NIHR for research and career development in mental health. There will be a focus on highlighting areas of importance for NIHR post COVID and emphasizing the need to attract and fund research across a range of health and care issues including mental health. The talk will also cover other areas of support from NIHR including the recently established mental health incubator.

Work Life Balance

Professor Geraint Rees

Balance is a verb and not a noun; to achieve work-life balance requires constant practice as it changes through everyone's career and life. Building on his personal experience as a

parent, husband, father, professor and academic leader, I will discuss the challenges and joys of seeking and occasionally achieving balance.

Professor Geraint Rees is UCL Pro-Vice-Provost (AI) and Dean of the Faculty of Life Sciences at UCL. His responsibilities combine institution-wide strategic responsibility for artificial intelligence with leadership of a large and complex world-leading academic faculty with over 850 staff, several thousand students and an income of almost £120M per annum. He founded and directs the Academic Careers Office at UCL and the Experimental Medicine Academy at the UCLH NIHR Biomedical Research Centre. The ACO delivers highly creative nationally recognised training to some of the UK's largest academic and clinical academic training programmes. He is a non-executive Director of UCL Business, one of the UK's most successful technology transfer companies, and until 2020 was a Senior Scientific Advisor at DeepMind. A neurologist and neuroscientist, his research seeks to understand the neural basis of human cognition. He has published over 280 research papers that have been cited over 28,000 times and was elected a Fellow of the Academy of Medical Sciences in 2010.

Session 3

Medical Students and FY Doctors: Alternative routes to academic careers in

Psychiatry

Dr Roshelle Ramkisson

Dr Roshelle Ramkisson is a consultant child and adolescent psychiatrist and NICE Fellow at Pennine Care NHS Foundation Trust

Keynote Address: Burnout among doctors and medical students

Professor Dinesh Bhugra

Medical profession has become one of the most stressful professions for a number of reasons. From making routine life or death decisions on a regular basis to dealing with complaints, pressures from regulators and managers rates of burnout, stress and mental illnesses are increasing . Equally worryingly, the next generation of doctors i.e. medical students also face challenges related to complex subjects, technical advances in medicine and problems related to learning by simulation. Both medical students and doctors are

dedicated professionals who wish to provide the best care possible to their patients. Medical students are often in the vulnerable age group for developing psychiatric disorders. Reporting from a series of surveys including doctors and medical students from a number of countries, this lecture highlights challenges in managing psychiatric disorders in these groups. These surveys show that there exist culturally influenced expectations and stressors. As a profession, we have a moral responsibility to support doctors and medical students by improving working environment which has a clear impact on doctors such as long hours worked which add to feeling tired and stressed leading to emotional disturbance, lack of suitable facilities for refreshments and rest etc. Tragically rates of alcohol and substance abuse and suicide are much higher among doctors. It is critical that employers provide full support. Changes at policy, national, institutional and personal levels are needed urgently. Doctors and medical students must have rapid access to support as and when they need it. Medical students can access services through medical schools and universities but both internal and external stigma can play a role in stopping people from seeking help. In this talk, findings from a series of global surveys of medical students and doctors will be described and suggestions made in order to reduce morbidity

Professor Dinesh Bhugra MA, MSc, MBBS, DSc(Hon), PhD, FRCP, FRCPE, FRCPsych, FFPHM, FRCPsych(Hon), FHKCPsych(Hon), FACPsych(Hon), FAMS(Singapore), FKCL, MPhil, LMSSA, FAcadME, FRSA, DIFAPA

- President, Royal College of Psychiatrists (2008-2011)
- President, World Psychiatric Association (2014-2017)
- President, British Medical Association (2018-2019)
- Professor Emeritus of Mental Health and Cultural Diversity, Kings College London

He has authored/co-authored over 500 scientific papers, chapters, editorials and 40 books. Several of his books have won awards and gone into multiple editions. Three of his books have been translated into Mandarin and Japanese. His Oxford Textbook for Public Mental Health won Book of the Year award last year. In the same year Practical Cultural Psychiatry was highly recommended. His interests in medicine's social contract, medical professionalism and future of psychiatric services have led to surveys and reports on burnout among medical students and doctors. His most recent edited volume is Oxford Textbook of Migrant Psychiatry published in February 2021.

He is the Editor of the International Journal of Social Psychiatry and International Review of Psychiatry

He is on the Board of Sane and Psychiatric Research Trust charities and chairs DocHealth charity which is jointly funded by the BMA and the Royal Medical Benevolent Fund. He is Deputy Chair and Non-Executive Director of Tavistock and Portman NHS Foundation Trust. He has been awarded 17 named orations and 15 honorary degrees from Universities and organisations around the world.

An introduction to academic editing

Dr Jude Harrison

This presentation will cover the advantages of getting involved as a peer-reviewer or trainee editor of a journal. It will also explain what is involved, and what opportunities are available.

Dr Jude Harrison is a ST4 in Old Age Psychiatry working in Newcastle/Gateshead. I completed my PhD at Cardiff University, funded by the Wellcome Trust. My main research interests are genetics and neuroimaging in Alzheimer's Disease and Lewy Body Dementia. I serve as Handling Editor for the British Journal of Psychiatry and the Journal of Alzheimer's Disease

Session 4

Workshop 1

Pre-Doctoral Trainees: Getting that Fellowship: Top tips

Professor John Paul Taylor

Externally funded Fellowships either at the doctoral level or intermediate level are key stepping stones to a successful clinical academic career.

In this interactive presentation I will provide tips and advice on how to get that coveted Fellowship. Covering my own personal journey, experience as a grants panel member and interviewer for Fellowships I will explore the "dos" and the "don'ts" of the Fellowship

process. My presentation will be short to allow attendees to explore their own Fellowship plans and challenges.

Dr John-Paul Taylor MD MRCPsych PhD is Professor of Translational Dementia Research and Honorary Consultant at Newcastle University and Northumberland Tyne and Wear NHS Foundation Trust. He was previously as Wellcome Trust Intermediate Clinical Fellow and Senior Clinical Lecturer. His research focuses the application of neuroimaging and neurophysiological approaches in understanding symptom etiology in dementia with Lewy bodies and Parkinson's disease dementia. Clinically he leads a specialist Lewy body dementia clinic in Newcastle upon Tyne, United Kingdom. He is currently a grants panel member for the Alzheimer's Research UK and on the scientific advisory board for the Lewy body Society, UK.

Workshop 2

Post-Doctoral Trainees: Funding and where to get it?

Dr Jessica Eccles

Dr Jessica Eccles is a former integrated academic clinical psychiatry trainee, will lead a discussion and take questions on opportunities for post-doctoral funding for psychiatric research

Dr Jessica Eccles completed integrated clinical academic psychiatric training in Sussex at Brighton and Sussex Medical School (AFP, ACF, PhD, CL) and is now a Clinical Senior Lecturer and Honorary Consultant Liaison Psychiatrist. Overall, during her training she has secured approx. £1M in external grant funding and has been awarded prestigious fellowships. Her research interests are in brain-body interactions.

Poster abstracts (alphabetical by surname)

1. Maternal Stress in Pregnancy and Child Autism Spectrum Disorder: Evaluating Putative Causal Associations Using a Genetically Informed Design.

Mr, Mohamed, Abdelrazek, Medical Student, Cardiff University Professor Frances, Rice, Centre for Young People's Mental Health, Section of Child and Adolescent Psychiatry, Division of Psychological Medicine and Clinical Neurosciences, Cardiff University

Aims and hypothesis

This project aims to use a quasi-experimental genetically informed design to assess if reported correlations between maternal prenatal stress and offspring ASD traits were due to maternally inherited factors or consistent with a potentially causal prenatal exposure effect.

Background

Early life adversity is hypothesized to increase risk of Autism Spectrum Disorder (ASD) via epigenetic changes. Prenatal maternal stress may alter offspring neurodevelopmental outcomes by disrupting a unique period of rapid neurogenesis. Observational studies reporting an environmentally mediated programming pathway face challenges in drawing causal inferences including passive gene-environment correlation. No previous cross-fostering studies have assessed the effects of prenatal stress on childhood ASD.

Method

This study used an in-vitro fertilization cross-fostering sample with pregnant mothers related (n=365) or unrelated (n=111) to their offspring (mean age=9.84 years). Prenatal stress was assessed using a subjective Likert scale during pregnancy. Questionnaires examined maternally rated offspring ASD traits using the Social and Communication Disorders Checklist. Birth weight and gestational age from medical records were used as comparison outcomes to validate the measure of stress as evidence suggests they are influenced by environmental factors. Correlations from multiple regression models were examined in relation to magnitude of effect size as well as significance. This is partly due to small sample size and that cross-fostering designs rely on comparing magnitudes of associations

between related and unrelated groups. An interaction term was used to test the difference in the strength of association between the related and unrelated mother-child groups.

Results

Subjective assessment of prenatal maternal stress showed construct validity as it was associated with low birth weight ($\beta=-0.297$, $p=0.005$) and reduced gestational age ($\beta=-0.320$, $p=0.001$). Subjective late pregnancy stress was associated with increased offspring ASD traits in the whole sample ($\beta=0.089$, $p=0.073$) and in the related ($\beta=0.045$, $p=0.424$) and unrelated mother-child ($\beta=0.233$, $p=0.029$) subgroups. Non-significant interaction terms demonstrated that the mechanisms underlying the association between maternal stress and ASD and birth outcomes are likely to be similar and environmentally driven in the different conception groups.

Conclusion and next steps

Findings demonstrate the utility of genetically informed designs in disentangling inherited factors from environmental influences in the study of prenatal risk factors. Correlations between maternal prenatal stress and offspring ASD being present in both related and unrelated mother-child groups indicate an environmental link that is consistent with a potential causal effect. Associations detected are of imperative use for clinicians and policymakers, as they can guide the implementation of early psychosocial care for families at high liability.

2. Use of Natural Language Processing to Estimate the Prevalence of Perinatal Self-Harm in Women with SMI

Ayre K, NIHR Doctoral Research Fellow and ST4 General Adult Psychiatry Trainee, Section of Women's Mental Health, Health Service and Population Research Department, Institute of Psychiatry, Psychology, and Neuroscience, King's College London, London, UK; South London and Maudsley NHS Foundation Trust, Bethlem Royal Hospital, Monks Orchard Road, Beckenham, Kent, London, UK. KA is funded by a National Institute for Health Research Doctoral Research Fellowship (NIHR-DRF-2016-09-042). The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health and Social Care.

Bittar A, Department of Psychological Medicine, Division of Academic Psychiatry IoPPN King's College London, London, UK. AB's work was also part supported by Health Data Research UK, an initiative funded by UK Research and Innovation, Department of Health and Social Care (England) and the devolved administrations, and leading medical research charities, as well as the Maudsley Charity.

Kam J, Medical student, King's College London GKT School of Medical Education, Hodgkin Building, Newcomen St, London, UK.

Verma S, Medical student, King's College London GKT School of Medical Education, Hodgkin Building, Newcomen St, London, UK.

Howard LM, NIHR Research Professor in Women's Mental Health and NIHR Senior Investigator, Section of Women's Mental Health, Health Service and Population Research Department, Institute of Psychiatry, Psychology, and Neuroscience, King's College London, London, UK; South London and Maudsley NHS Foundation Trust, Bethlem Royal Hospital, Monks Orchard Road, Beckenham, Kent, London, UK. Professor Louise M Howard receives salary support from NIHR South London and Maudsley/ King's College London Biomedical Research Council and the NIHR South London Applied Research Collaboration.

Dutta R, Senior Clinical Lecturer / Consultant Psychiatrist, Department of Psychological Medicine, Division of Academic Psychiatry IoPPN King's College London London, UK; South London and Maudsley NHS Foundation Trust, Bethlem Royal Hospital, Monks Orchard Road, Beckenham, Kent, London, UK. RD is funded by a Clinician Scientist Fellowship (research project e-HOST-IT) from the Health Foundation in partnership with the Academy of Medical Sciences which also party funds AB.

Aims and hypothesis

Aims and hypothesis: Aims: (1) Use Natural Language Processing (NLP) to develop an application to detect PSH within electronic healthcare records (EHRs); (2) Use the

application to estimate the prevalence of perinatal self-harm in a cohort of women with SMI. Hypothesis: It is possible to generate an NLP application that can identify perinatal self-harm in EHRs and use it to estimate the prevalence of perinatal self-harm in a cohort of women with serious mental illness (SMI).

Background

NLP is a computational technique that incorporates linguistic contextual analysis into identifying terms of interest. Self-harm occurring in the perinatal period (pregnancy and the year after birth; “perinatal self-harm”; PSH) is clinically important yet limitations in outcome measure mean the prevalence is most likely under-estimated. New techniques are required. PSH appears to be more common in women with SMI, so this population should be a focus of research.

Method

Via the NIHR Maudsley BRC Clinical Record Interactive Search system, we used a corpus of de-identified EHRs and several layers of linguistic processing based on the spaCy NLP library for Python, to develop our application. Mention-level performance was evaluated against a manually coded gold standard, in the following domains: span, status, temporality and polarity. Performance was also assessed at ‘service-user’ level and we explored whether a heuristic rule improved this. We used CRIS linkage with Hospital Episode Statistics to generate a cohort of women accessing South London and Maudsley NHS Foundation Trust perinatally and used the application to estimate the prevalence of PSH.

Results

Mention-level performance: micro-averaged F-score, precision and recall for span, polarity and temporality >0.8. Kappa: status 0.68, temporality 0.62, polarity 0.91. Service-user level performance with heuristic: F-score, precision, recall of minority class 0.69, macro-averaged F-score 0.81, positive LR 9.4 (95% CI 4.8 – 19), post-test probability for positive flag 68.9% (53-82%), and post-test probability for negative flag 7.2% (4-12%). Cohort prevalence of self-harm in pregnancy was 15.3% (14.3 – 16.3), in the postnatal year was 19.7% (18.6 – 20.8).

Conclusion and next steps

Conclusions and next steps: It is feasible to develop an NLP application that identifies PSH within EHRs, although limitations regarding temporality mean the application probably

over-estimates prevalence. Even accounting for these, within this cohort, it suggests perinatal self-harm is relatively common in women with perinatal SMI, particularly postnatally. Next steps should include investigating correlates.

Funding statements:

KA is funded by a National Institute for Health Research Doctoral Research Fellowship (NIHR-DRF-2016-09-042). The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health and Social Care.

RD is funded by a Clinician Scientist Fellowship (research project e-HOST-IT) from the Health Foundation in partnership with the Academy of Medical Sciences which also partly funds AB.

AB's work was also partly supported by Health Data Research UK, an initiative funded by UK Research and Innovation, Department of Health and Social Care (England) and the devolved administrations, and leading medical research charities, as well as the Maudsley Charity.

Professor Louise M Howard receives salary support from NIHR South London and Maudsley/ King's College London Biomedical Research Council and the NIHR South London Applied Research Collaboration. The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health and Social Care.

3. Sensory symptoms in body-focused repetitive behaviours and premonitory urges to tic in Tourette syndrome: an overlap?

Mr James Badenoch, Medical Student, University of Birmingham. Miss Tamara Searle, Medical Student, University of Birmingham. Miss Iona Watson, Medical Student, University of Birmingham. Professor Andrea E. Cavanna, Consultant in Behavioural Neurology, BSMHFT, Birmingham, UK

Aims and hypothesis

This narrative review explores the nature of sensory symptoms reported by patients with body focussed repetitive behaviours (BFRBs) and restless legs syndrome (RLS) in comparison to Tourette syndrome (TS)

Background

Tourette syndrome (TS) is a neurodevelopmental condition characterised by multiple motor tics plus at least one phonic tic. Sensory symptoms are thought to play a key role in the clinical phenomenology and pathophysiology of TS, as most patients report premonitory urges driving tic expression. Interestingly, sensory symptoms have also been reported in other conditions characterised by repeated behaviours.

Method

We conducted a systematic literature search to locate original studies from major scientific databases, which explored the phenomenology of sensory symptoms in RLS and BFRBs and of premonitory urges in TS.

Results

A sense of mounting inner tension and reinforcement mechanisms driven by gratification and relief on expression of the tic or behaviour appear to be implicated across all conditions. Moreover, subjective urges can be temporarily suppressed by patients with TS and selected BFRBs, whereas patients with RLS tend to report dysaesthesia more frequently than a suppressible urge to move. The observed similarities in the clinical phenomenology of the urges across these conditions raise the possibility of a comparable underlying pathophysiology. Preliminary findings suggest a possible shared role for the insula, the basal ganglia (putamen), and the posterior cingulate cortex.

Conclusion and next steps

An improved understanding of the pathophysiological aspects shared by repetitive behaviours driven by sensory symptoms and premonitory urges to tic could allow for the development of more effective treatment options.

4. Tics in patients with encephalitis

Mr James Badenoch, Medical Student, University of Birmingham. Miss Tamara Searle, Medical Student, University of Birmingham. Miss Iona Watson, Medical Student, University of Birmingham. Professor Andrea E. Cavanna, Consultant in Behavioural Neurology, BSMHFT, Birmingham, UK

Aims and hypothesis

This review aimed to assess the prevalence and characteristics of tics in patients with encephalitis.

Background

Movement disorders have been described in the context of different types of encephalitis. Among hyperkinetic manifestations, tics have sporadically been reported in cases of encephalitis resulting from a range of aetiologies.

Method

We conducted a systematic literature review of original studies on the major scientific databases, according to the standards outlined in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.

Results

In addition to the established association between tics and encephalitis lethargica, our literature search identified reports of tics in patients with immune-mediated pathologies (including autoimmune encephalitides affecting the N-methyl-d-aspartate receptor, voltage gated potassium channels, and glycine receptors) and infective processes (ranging from relatively common viral pathogens, such as herpes simplex, to prions, as in Creutzfeldt-Jakob disease). Tics were most commonly reported in the post-encephalitic period and involvement of the basal ganglia was frequently observed.

Conclusion and next steps

The association of new-onset tics and encephalitis, in the background of other neuropsychiatric abnormalities, has practical implications, potentially improving the detection of encephalitis based on clinical features. Future research should focus on the

categorisation and treatment of hyperkinetic movement disorders associated with encephalitis.

5. Pharmacotherapy for tics in adult patients with Tourette syndrome and other tic disorders

Mr James Badenoch, Medical Student, University of Birmingham. Professor Andrea E. Cavanna, Consultant in Behavioural Neurology, BSMHFT, Birmingham, UK

Aims and hypothesis

We set out to explore pharmacotherapy for tics in adult patients with Tourette syndrome (TS) and persistent motor/vocal tic disorders, as well as its relationship with the presence of co-morbid conditions.

Background

Tourette syndrome (TS) and persistent motor/vocal tic disorders are neurodevelopmental conditions characterised by the chronic presence of motor and/or vocal tics. Patients with TS often present with co-morbid disorders, especially attention-deficit and hyperactivity disorder (which tends to improve after childhood), and obsessive-compulsive disorder (which can persist in adulthood).

Method

We retrospectively reviewed the clinical characteristics and pharmacotherapy of 192 adult patients with TS (n = 187), persistent motor tic disorder (n = 3) and persistent vocal tic disorder (n = 2) attending a specialist clinic in the UK.

Results

Anti-dopaminergic medications (n = 65) and alpha-2-agonists (n = 50) were the most commonly prescribed pharmacotherapy for tic management. A sub-group analysis revealed that co-morbid obsessive-compulsive disorder and sub-threshold obsessive-compulsive behaviours were significantly more common in patients treated with anti-dopaminergic medications than patients taking alpha-2-agonists ($p = 0.013$ and $p = 0.047$, respectively).

Conclusion and next steps

The use of pharmacotherapy options for tic management observed at a specialist clinic for adults with TS reflects guideline recommendations. We found that the presence of co-morbid obsessive-compulsive disorder/behaviours correlates with the choice of anti-

dopaminergic medications over alpha-2-agonists, in line with available evidence on the efficacy of anti-dopaminergic medications for the treatment of specific tic-related behavioural symptoms.

6. Social Capital and Mental Health Among Black and Minority Ethnic Groups in the UK

Dr Jordan Bamford F1 Dr Gonnie Klabbbers, Dr Emma Curran, Dr Michael Rosato, Prof Gerard Leavey

Aims and hypothesis

We explore differences in mental health and the influence of social capital among ethnic minority groups in Great Britain.

Background

Black and minority ethnic communities are at higher risk of mental health problems. Social capital is a key determinant of mental health - there is a lack of research looking at the role of social capital in predicting ethnic minority mental health.

Method

Cross-sectional linear and logistic regression analysis of data from Wave 6 (2014–2016) of the Understanding Society databases.

Results

In unadjusted models testing the likelihood of reporting psychological distress (i) comparing against a white (British) reference population Indian, Pakistani, Bangladeshi and mixed ethnic minority groups recorded excess levels of distress; and (ii) increasing levels of social capital recorded a strong protective effect (OR=0.94; 95% CI 0.935, 0.946). In a subsequent series of gender-specific incremental logistic models-after adjustment for sociodemographic and socioeconomic factors Pakistani (males and females) and Indian females recorded higher likelihoods of psychological distress, and the further inclusion of social capital in these models did not materially alter these results.

Conclusion and next steps

More research on the definition, measurement and distribution of social capital as applies to ethnic minority groups in Great Britain, and how it influences mental wellbeing is needed.

7. Delirium in people with severe mental illness: a retrospective cohort study

Dr Yehudit Bauernfreund, CT2 ACF, Division of Psychiatry, UCL Dr Graziella Favarato, Division of Psychiatry, UCL Mrs Naomi Launder, PhD student, Division of Psychiatry, UCL Dr Joseph Hayes, Division of Psychiatry, UCL Professor David Osborn, Division of Psychiatry, UCL Professor Elizabeth Sampson, Division of Psychiatry, UCL

Aims and hypothesis

To describe the occurrence of delirium in people with severe mental illness using a CPRD – HES linked dataset.

Background

Delirium is an acute disturbance in cognition associated with high morbidity and mortality. Delirium is clearly associated with depression, but its occurrence in people with severe mental illness (SMI), i.e. psychotic illness or bipolar disorder, is poorly understood. People with SMI are disproportionately affected by physical illness, often on multiple psychotropic medications and may have less cognitive reserve, theoretically increasing their risk of delirium. Delirium in people with SMI is poorly recognised due to diagnostic overshadowing, which may increase the risk of mortality. Very few studies have described the occurrence of delirium in primary-care derived cohorts. Very few studies have compared data from the CPRD GOLD and Aurum databases.

Method

We used primary care electronic records from CPRD to identify all patients with SMI with at least one year of follow-up between 01/01/2000 and 31/12/2018. As increasing numbers of GP practices are using EMIS, we used the EMIS-linked CPRD Aurum database as well as the original Vision-linked CPRD GOLD database. We used linkage to the Hospital Episodes Statistics Admitted Patient Care (HES-APC) dataset to identify occurrences of delirium.

Results

Our full cohort included 249,047 people with SMI. 85,979 (34.5%) patients were eligible for linkage with HES-APC. 57,604 (23.1%) had at least one admission record in HES-APC during follow-up, and 1,340 (0.5%) had at least one delirium related admission. Patients with a delirium related admission were more likely to be older at study entry, female, of white ethnicity, have “other psychosis” and take more anti-psychotics. Patients who had a

delirium related admission had more admissions per years of follow-up and were more likely to die during follow-up. The proportion of admissions involving an episode of delirium is increasing over time.

Conclusion and next steps

Better understanding of the occurrence of delirium in people with SMI is needed. Using a primary-care derived cohort linked with hospital data rather than a hospital cohort gives a clearer picture of rates of hospitalisation for delirium in this population. Preliminary analysis suggests that people with SMI who are older and on anti-psychotic medications may be at higher risk of developing delirium in the face of acute illness and that delirium is associated with mortality in this population. Our large cohort of people with SMI could be used to further explore the predictors of delirium in this population.

8. N-Methyl-D-Aspartate Receptor availability in First-Episode Psychosis: A PET-MR brain imaging study

Katherine Beck, MRCPsych, Atheeshaan Arumham, MD, Mattia Veronese, PhD, Barbara Santangelo, Colm J McGinnity, PhD, Joel Dunn, PhD, Robert A McCutcheon, MRCPsych PhD, Stephen Kaar, MRCPsych, Nisha Singh, DPhil, Toby Pillinger, MRCP PhD, Faith Borgan, PhD, James Stone, PhD FRCPsych, Sameer Jauhar, MRCPsych PhD, Teresa Semanta, MSc, Federico Turkheimer, PhD, Alexander Hammers, MD PhD, Oliver D Howes, MRCPsych PhD

Aims and hypothesis

Evidence from genetics, post mortem and animal studies suggest that N-Methyl-D-Aspartate Receptor (NMDAR) hypofunction has an important role in the pathophysiology of psychosis. However, it is not known if NMDAR activity is altered in the early stages of psychosis or if this links to symptom severity. Our aim was to investigate NMDAR availability in first-episode psychosis (FEP) and determine if it links to symptom severity.

Background

The NMDAR hypofunction hypothesis of schizophrenia was initially proposed in the 1990s on the basis of observations that ketamine and phencyclidine (PCP) induced the full range of schizophrenia-like symptoms (positive, negative and cognitive) when given to healthy participants and also that they worsen symptoms in patients with schizophrenia.

Method

We recruited 40 volunteers, including 21 patients with schizophrenia from early intervention services in London (12 antipsychotic-free and 9 receiving antipsychotic medication) and 19 matched healthy controls. The uptake of an NMDAR selective ligand, [18F]GE179, was measured using positron emission tomography (PET) and indexed using the distribution volume ratio (DVR) and volume of distribution (VT, in millilitres per cubic centimetre) of [18F]GE179 in the hippocampus and additional exploratory regions (anterior cingulate cortex (ACC), thalamus, striatum and temporal lobe). Symptom severity was measured using the Positive and Negative Syndrome Scale (PANSS).

Results

A total of 37 individuals were included in the analyses (mean [SD] age of controls, 26.7 (4.5) years; mean [SD] age of patients, 25.3 (4.9). There was a significant reduction in

hippocampal DVR in the patients with schizophrenia relative to healthy controls ($p = 0.02$, Cohen's $d = 0.81$). Although the VT of [18F]GE179 was lower in absolute terms in patients, there was no significant effect of group on VT in the hippocampus ($p = 0.15$, Cohen's $d = 0.49$) or the exploratory brain regions. There was a negative association between hippocampal DVR and total PANSS symptoms ($\rho = -0.47$, $p = 0.04$), depressive symptoms ($\rho = -0.67$, $p = 0.002$), and general PANSS symptoms ($\rho = -0.74$, $p = 0.001$).

Conclusion and next steps

These results indicate lower hippocampal NMDAR levels in schizophrenia relative to controls with a large effect size, and that lower NMDAR levels are associated with greater levels of symptom severity. These findings are consistent with the role of NMDAR hypofunction in the pathophysiology of schizophrenia; however, further work is required to test specificity and causal relationships.

9. The SAFEST approach: improving standardisation of assessments and interdisciplinary communication in the Exeter CAMHS rapid risk assessment service (RAS) team

Dr Pamela Bowman*, Devon Partnership NHS Trust Dr Jennifer Price*, Devon Partnership NHS Trust Ms Rachel Jones, Devon Partnership NHS Trust Dr Rory Conn, Devon Partnership NHS Trust * = contributed equally

Aims and hypothesis

Our quality improvement project aims to assess the degree of standardisation of RAS assessment documentation and communication, and to improve this through multiple plan-do-study-act (PDSA) cycles.

Background

Miscommunication between professionals is a major threat to patient safety, particularly in the context of transitions between healthcare settings. The 7-practitioner Exeter CAMHS RAS team assesses young people (YP) admitted to hospital due to concerns about their mental health/safety. YP accessing RAS frequently require implementation of robust safety plans to support mental health needs and contain risk on the ward and following discharge. Joint working and clear, timely communication between CAMHS, Paediatrics and Primary Care is essential to facilitate this. The RAS team has recently experienced significant changes including the introduction of a new electronic patient records (EPR) system in the general hospital which is held separately to the CAMHS EPR system. This has highlighted the need for a standardised approach to documenting and communicating RAS assessments.

Method

We established the acronym SAFEST to describe elements of each RAS review requiring documentation/communication: Safety plan, Assessment, FACE risk assessment form, Entry in the paediatric notes, Standardised GP letter (within 24 hours), and Transfer of full assessment to the paediatric clinical records. We audited all RAS assessments undertaken between 10th October and 10th November 2020. We used a Delphi-informed method to survey team members about barriers to implementing the SAFEST approach, and potential solutions. We implemented changes and re-audited all RAS assessments taking place during February 2021.

Results

The completion rates in the first audit for the different elements of SAFEST were 53%(S), 94%(A), 71%(F), 88%(E), 71%(S) and 71%(T), n=17. RAS team members identified 10 key barriers to completion of the SAFEST approach, and 13 potential solutions. Insufficient time, lack of IT training/accessibility following introduction of paediatric EPRs, lack of prompts/monitoring, and frequent interruptions were deemed the greatest challenges. Following implementation of changes designed to address these challenges, completion rates in the second audit were 85%(S), 93%(A), 44%(F), 96%(E), 56%(S) and 56%(T), n=27.

Conclusion and next steps

There are inconsistencies in the documentation/communication of Exeter RAS assessments. One PDSA cycle has resulted in improvements in 2 key areas, but deterioration in others. Further work will involve a second RAS team survey data to identify ongoing barriers to implementation of the SAFEST approach. This will be followed by additional changes to facilitate improved compliance with all aspects of SAFEST, ensuring high standards of communication and patient safety.

10. Improving the quality of referrals to the Psychiatry Liaison Team in a busy acute hospital

Co-authors. **Dr. Amanda Brickstock**, FY2, NHS Heart of England Trust Dr. Aditya Krishnan, FY2, NHS Heart of England Trust

Aims and hypothesis

This quality improvement project aims to reduce inappropriate referrals made to the Psychiatry Liaison Team (PLT) and improve staff understanding of mental health services to ensure patients receive the most appropriate care.

Background

Birmingham Heartlands Hospital PLT provide psychiatric input for hospital inpatients when needed. We have both worked with PLT during our F1 year and within other specialities during our foundation training. We have observed the difficulty in both receiving inappropriate PLT referrals and the conflicted interface between psychiatry and other directorates.

Method

Retrospective baseline data of all ward referrals was collected over a 2-week period. Referral reason and outcome data were recorded. Additionally, a 10-point Likert scenario-based assessment was sent to foundation doctors collecting data on referral confidence. Data over 2-week periods was collected after each cycle. The 1st cycle was used to design a poster signposting appropriate mental health services within the trust including alcohol and homelessness alongside capacity assessment and delirium advice. Posters were distributed across all wards. A subsequent cycle involved core teaching to foundation doctors about PLT and getting feedback on service improvement. The third cycle focused on teaching acute medicine (AMU) staff.

Results

Baseline data (n = 78) demonstrated that 38.5% of referrals were seen with no PLT role, or were immediately rejected. Foundation doctors (n = 29) responded to the baseline survey. The most poorly answered scenario was "Patient's family is worried they may be developing dementia" (n = 0 considering this appropriate to refer to PLT). Results showed that overall, the appropriateness of referrals improved. Data showed a reduction in inappropriate

referrals from 38.5% at baseline to 29% at cycle 1, 27.9% at cycle 2 and 16% at cycle 3. Staff mean scores on a 19-item scenario based assessment went from 13.9 at baseline to 16.3 after the 3rd cycle. Our 3rd cycle aimed to teach AMU staff as data showed that 44% of referrals from AMU did not require a PLT role.

Conclusion and next steps

These results demonstrate an improved hospital wide understanding of mental health services. We successfully improved the referrals process at our hospital, staff better understand the liaison team role and the poster is in the process of being added to the trust intranet permanently. We hope we have empowered our colleagues to make appropriate referrals and ultimately ensure the best care for our patients.

11. Is attachment style in early childhood associated with mental health difficulties in late adolescence?

Dr Philippa Clery, Clinical Research Fellow, University of Bristol | Dr Angela Rowe, Reader in Social Cognitive Psychology, University of Bristol | Professor Marcus R. Munafò, Professor of Biological Psychology, University of Bristol | Dr Liam Mahedy, Senior Research Associate in Genetic Epidemiology, University of Bristol

Aims and hypothesis

In this large prospective study we aimed to determine whether attachment quality in early childhood is associated with depression and self-harm at 18 years. We hypothesised a more insecure attachment style to be associated with a diagnosis of depression and reported self-harm behaviours.

Background

Although existing research has suggested an association between insecure attachment styles and mental health difficulties, these studies often have small sample sizes, use cross-sectional designs, and measure attachment as a discrete variable at a single point or use romantic relationship attachment as a proxy for childhood attachment. It is also unclear whether these associations persist into late adolescence.

Method

We used data from the Avon Longitudinal Study of Parents and Children cohort. Mothers completed attachment related questionnaires when their child was 18, 30, and 42 months old. Offspring depression and lifetime self-harm was assessed at 18 years in clinic using the Clinical Interview Schedule-Revised. Attachment was derived as a continuous latent variable in a structural equation modelling framework. Logistic regression was performed on participants with complete attachment data (n=7032) to examine the association between attachment style and depression and self-harm, with adjustment for potential confounders. Differential dropout was accounted for using multiple imputation.

Results

We found some evidence for an association between a more insecure attachment style in childhood, and a diagnosis of depression and life-time self-harm at 18 years. In the fully adjusted imputed model, a one standard deviation increase in insecure attachment was

associated with a 13% increase in the odds of depression (OR=1.13; 95%CI=1.00 to 1.27) and a 14% increase in the odds of self-harm at age 18 (OR=1.14; 95%CI=1.02 to 1.25), for children who had more insecure attachment in early childhood, compared with children who had more secure attachment.

Conclusion and next steps

This is the largest longitudinal study to examine the prospective association between childhood attachment and depression and self-harm in late adolescence. Our findings strengthen the evidence suggesting that a childhood insecure attachment style is associated with mental health difficulties in late adolescence. Policies and interventions to support parenting behaviours that foster the development of secure attachment styles, or attachment-based therapies to improve attachment quality, could help reduce depression and self-harm in adolescence/young adulthood. Philippa Clery is supported by the Elizabeth Blackwell Institute for Health Research at the University of Bristol and the Wellcome Trust Institutional Strategic Support Fund.

12. Assessing antipsychotic discontinuation in first-episode psychosis (FEP) with comorbid cannabis use: a naturalistic study

Dr Charles Cooper, MBBS, MSc Psychiatric Research, IoPPN, King's College London, UK
Professor Sagnik Bhattacharyya, Professor of Translational Neuroscience and Psychiatry, IoPPN, King's College London, UK

Aims and hypothesis

Three of the most widely used antipsychotics used in the UK are olanzapine, risperidone and aripiprazole. Their relative efficacy in first-episode psychosis (FEP) and comorbid cannabis use however remains uncertain. In this study, we address this issue by evaluating time to all-cause antipsychotic discontinuation, as a proxy of treatment efficacy and tolerability.

Background

Psychotic disorders are common and have a substantial impact on individuals and wider society. In FEP patients, co-morbid cannabis use is frequent and offers additional challenges; it is associated with higher relapse rates, worse clinical outcomes and directly contributes towards antipsychotic failure. While evidence suggests antipsychotics are generally effective in FEP and comorbid cannabis use, the literature focusing on their relative efficacy is limited and inconsistent. Furthermore, several common antipsychotics such as aripiprazole are yet to be examined in this patient group.

Method

In this observational and naturalistic study, we investigated patients selected from a larger cohort of prospectively recruited patients with FEP, who were studied to assess the effect of cannabis use on outcome. Patients reporting continued use of cannabis over the first 2 years following presentation to Early Intervention Services, and were started on treatment with olanzapine, risperidone and aripiprazole, were included in this analysis. We used Cox multiple regression models for survival analysis to compare hazard time to all-cause discontinuation for each antipsychotic, before validating the results with propensity score analysis.

Results

Olanzapine had a significantly lower hazard of all-cause discontinuation in survival analysis when compared with risperidone (HR 2.12; 95% CI 1.11-4.04; p 0.023) or aripiprazole (HR 4.96; CI 1.76-14.0; p 0.002). Furthermore, risperidone had a significantly lower hazard of all-cause discontinuation when compared to aripiprazole (HR 3.09; 95% CI 1.12-8.54; p 0.030). These results remained significant following adjustment for possible confounders and propensity score analysis. However, there were no significant differences between the three medications in terms of time to first hospitalisation.

Conclusion and next steps

Significantly longer time to discontinuation may indicate that olanzapine is more effective than risperidone and aripiprazole in this real-world, naturalistic study, though there was no significant effect on risk of relapse as indexed by hospitalisation. This data suggests testable hypotheses regarding differential antipsychotic efficacy in cannabis-using FEP patients that warrant formal investigation in fully powered RCTs. This may in turn inform prescribing practice in psychotic patients with continued cannabis use.

13. Can prucalopride, a 5-HT₄ agonist, improve cognition in the human brain?

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Aims and hypothesis

We aimed to provide the first exploration of the effect of short-term prucalopride (a partial agonist at 4th serotonin (5-HT₄) receptor) on human behavioural and neural memory processing. We hypothesised that prucalopride would improve episodic memory and produce greater activation of hippocampal neural networks during an fMRI task.

Background

Cognitive deficits within psychiatric disorders are common but often under-recognised, and may be difficult to treat. Animal studies suggest that 5-HT₄ receptor stimulation enhances learning and memory related to the release of neurotransmitters and neurotrophic factors, including acetylcholine and BDNF. Translation of this potential effect into humans has been limited due to side effects of earlier agents.

Method

Right-handed healthy participants (N=44, aged 18-36) were administered either prucalopride (7 days x 1mg) or placebo, in a double-blind, randomised design. On day 6, participants underwent a 3T scan including an fMRI memory task. Participants were familiarised to 8 randomly-selected emotionally-neutral “familiar” pictures 8 times before the scan. They saw these again in the scanner alongside 48 similar “novel” images. After the scan, participants’ ability to differentiate between novel, familiar and 27 additional “distractor” images was tested. Behavioural data were analysed using repeated-measures ANOVA. Imaging data were analysed with FSL, and corrected for multiple comparisons, perfusion, and grey matter. Brain activations showing significant group differences were

identified using cluster-based thresholding ($Z > 3.1$, $p < 0.05$ corrected). Regions of interest analyses were pre-specified.

Results

We found 5-HT₄ receptor agonism in humans led to improved recognition of previously-seen images when compared to placebo. In the post-scan recall task, the prucalopride group were more accurate than the placebo group in distinguishing each image category (novel/familiar/distractor) ($F(1,38)=4.806$, $p=0.035$) and selecting those seen before (novel+familiar) versus distractors ($F(1,38)=5.18$, $p=0.029$). Prucalopride also led to greater activation in the hippocampus bilaterally during processing scenes [$F(1,42)=5.19$, $p=0.028$, $\eta^2=0.11$]. On whole-brain fMRI analysis, prucalopride participants also showed significantly more activation in the right angular gyrus – a memory association region (familiar>implicit baseline, prucalopride>placebo, $Z=4.1$, $p<0.005$, peak voxel: $x=42, y=-60, z=60$, cluster size=168 voxels). Results were almost identical with/without correction for grey matter, perfusion, and gender.

Conclusion and next steps

In healthy volunteers, 6 days of prucalopride led to improved cognitive performance behaviourally. Following successful memory encoding, it also resulted in increased activation to the hippocampus and a region closely linked to hippocampal memory processing. Our findings support 5-HT₄ agonists as likely pro-cognitive agents in humans, with the potential to support patients with cognitive impairment secondary to psychiatric disorder.

14. Childhood adversity and persistence of psychotic experiences in adolescence

Dr Niamh Dhondt, Intern, St James's Hospital Dublin. Colm Healy PhD, Post-doctorate Researcher, Department of Psychiatry RCSI Dublin. Helen Coughlan PhD, Clinical Research Fellow, Department of Psychiatry RCSI Dublin. Professor Mary Cannon, Department of Psychiatry Beaumont Hospital Dublin.

Aims and hypothesis

To examine whether exposure to adversity up to age 9 is associated with the persistence of psychotic experiences from age 13 to 17

Background

Psychotic experiences have a lifetime prevalence of around 5-7% but are more common in childhood and adolescence. Childhood adversity is a well-established risk factor for psychotic experiences, the persistence of psychotic experiences, and psychosis. Psychotic experiences in adolescence are associated with a number of negative outcomes, including both functional difficulties and psychiatric disorders. The majority of psychotic experiences are transient, but they become persistent in around 20% of individuals. Psychotic experiences that persist are more likely to lead to psychotic disorders, and may represent either a separate group of higher-risk individuals or the extreme end of a spectrum of psychotic experiences. The differences between those with transient and persistent psychotic experiences may present useful targets to reduce the incidence of psychopathology in the relevant population.

Method

Design: Data was used from the Growing Up in Ireland (GUI) national longitudinal study of children recruited from primary school who were born from November 1997 to October 1998. **Setting:** Data on experience of adverse life events and psychotic experiences was included in the study. Data were analysed between June 24, 2019 and August 23, 2019. **Participants:** The sample of 6,039 children and their families who participated in the GUI study at ages 9, 13 and 17. **Exposures:** Childhood adversity at or before age 9 was assessed by a questionnaire on common stressful life events completed by the parents. **Mediators at age 13** were assessed by child and parent questionnaires. **Main Outcomes and Measures:** Psychotic experiences were assessed with the Adolescent Psychotic-like Symptom Screener at age 13 and age 17.

Results

Childhood adversity was reported by 1,748 age 9 participants (28.95%). Psychotic experiences were reported by 725 participants (12.84%) at age 13 and 575 participants (9.75%) at age 17. Psychotic experiences at age 17 were predicted by age 9 childhood adversity (adjusted odds ratio, 1.47; 95% CI, 1.21-1.78). 34.75% participants who reported psychotic experiences at 17 met criteria for childhood adversity. 174 participants reported psychotic experiences at both 14 and 17, a persistence rate of 24.48%. Age 9 childhood adversity predicted persistence of psychotic experiences (adjusted odds ratio, 1.88; 95% CI, 1.27-2.76). The relationship between childhood adversity and age 17 psychotic experiences was mediated by self-concept (11.53%; adjusted odds ratio, 1.04; 95% CI, 1.02-1.06) and parent-child conflict (10.38%; adjusted odds ratio, 1.04; 95% CI, 1.02-1.05). No candidate mediators significantly mediated between childhood adversity and persistent psychotic experiences.

Conclusion and next steps

These findings suggest a causative relationship between childhood adversity and persistent psychotic experience and identify modifiable risk factors for persistent psychotic experiences.

15. Excitatory-inhibitory balance in 22q11.2 Deletion Syndrome: a magnetoencephalography study and magnetic resonance spectroscopy study

Dr Joanne Doherty, ST6, Wales Clinical Academic Track, Wales Deanery and Cardiff University. Dr Adam Cunningham, Research Associate, Cardiff University. Professor Marianne Van Den Bree, Cardiff University. Professor Krish Singh, Cardiff University. Professor David Linden, Cardiff University Professor Michael Owen, Cardiff University

Aims and hypothesis

This study aims to compare markers of excitatory-inhibitory (E-I) balance between children with a genetic syndrome associated with high risk of neurodevelopmental and psychiatric disorders (22q11.2 deletion syndrome, 22q11.2DS) and children without a genetic syndrome using magnetoencephalography (MEG) and magnetic resonance spectroscopy (MRS). It is hypothesized that children with 22q11.2DS will have altered markers of E-I balance and that these will be associated with the severity of neurodevelopmental symptoms.

Background

The balance between excitatory and inhibitory activity (E-I balance) in the brain is critical for normal cortical functioning, resulting in synchronized oscillatory neural rhythms across different frequency bands. It has been proposed that disruption to this delicate balance may underlie several neuropsychiatric conditions including schizophrenia, autism spectrum disorder (ASD) and attention deficit hyperactivity disorder (ADHD). 22q11.2DS is a genetic syndrome that confers high risk across this spectrum of disorders. Alterations in the distribution and function of inhibitory GABAergic interneurons have been reported in animal and cellular models of 22q11.2DS but to date, there have been few studies exploring markers of E-I balance in affected children. MEG is a technique with which oscillatory patterns can be investigated at rest and during active tasks. MRS uses an MRI scanner to estimate the relative concentration of brain metabolites, including GABA. These complimentary techniques can therefore be used to investigate markers of E-I balance *in vivo*.

Method

Thirty-five children aged between 10-17 years with 22q11.2DS and twenty-five unaffected children took part in the study. Whole head MEG recordings were made at rest and during visual stimulation to investigate oscillatory dynamics. A spectral editing technique known

as MEGA-PRESS was applied to MRI data to measure GABA concentrations relative to creatine and water in the occipital cortex.

Results

Children with 22q11.2DS had altered resting state activity and functional connectivity compared to unaffected controls. These alterations were associated with the severity of ASD and ADHD symptoms. Compared to healthy controls, children with 22q11.2DS also had a reduction in the amplitude and power of high frequency, gamma-band oscillatory responses to visual stimulation. There was a trend towards an association between gamma-band power and ASD symptoms. There were however, no between-group differences in cortical GABA concentrations.

Conclusion and next steps

This study provides preliminary evidence for excitatory-inhibitory imbalance in children with 22q11.2DS, that is associated with the severity of neurodevelopmental symptoms. MRS data suggest that this imbalance is not likely to be driven by the alterations in GABA concentrations, but that other mechanisms may be important in conferring risk of neurodevelopmental and psychiatric disorders.

16. National Survey into Trainee Experience of Core Psychotherapy Training

Dr Lauren Evans, CT2, South West London and St. George's Mental Health NHS Trust; Dr Georgia Belam, Consultant Older Age Psychiatrist, Surrey and Borders Partnership NHS Foundation Trust

Aims and hypothesis

This project aims to assess the experience of psychiatry core trainees who have undertaken core psychotherapy training (CPT), to identify what is experienced positively and potential areas of improvement.

Background

Psychotherapy is an necessary part of core psychiatry training, requiring one short and one long case to complete core training.

Method

An anonymous online survey was drafted, containing both qualitative and quantitative questions, to assess trainees experiences of CPT. It was circulated via Trust email (locally) and Twitter (nationally).

Results

A total of 35 responses were received: 21 core trainees, 12 higher trainees, 1 consultant, and 1 staff grade doctor. 6 respondents had completed a short case only; 2 a long case only; 25 both; and 2 neither. Confidence in psychotherapy knowledge was rated on a 1-5 scale (1: significantly below average to 5: significantly above average). Theoretical knowledge improved from a 2.57 average before CPT to 3.63 following, and clinical application improved from 2.43 before to 3.66 following. Knowledge prior to delivering CPT was most commonly obtained from Balint group (71.4% of respondents) and MRCPsych courses (65.7%). The main barriers to obtaining psychotherapy experience were: accessing supervision (60.0% of respondents); not enough patients (53.3%); and a lack of guidelines on accessing supervision and patients (43.3%). Additionally, getting time away from day jobs was identified as a concern, particularly among LTFT trainees. Important learning points from CPT identified by trainees were: knowledge of psychoanalytic concepts, such as transference and counter-transference; differences between the theoretical models; an alternative approach to formulation; and how these skills can be useful in all clinical

encounters, such as maintaining rapport, boundaries, and time-keeping. The useful role of supervision was also highlighted.

Conclusion and next steps

This project serves as an introductory look into how trainees view their experience of CPT, and potential areas for improvement. Themes for improvement, arising from qualitative responses, are: clear reading list, including introductory materials; clear guidelines at induction, including supervisor contact details; improved access to supervision; patients to be allocated; protected time for psychotherapy, with extra support for LTFTs; shadowing; increased choice of modality; and more formal teaching on psychotherapy. These are key areas to be targeted to improve the trainee experience, particularly for those who risk delays in their training.

17. RedTo Green: An Efficient Board-Round

Dr Ansab Fazili, Dr Hema Ananth , Consultant, HFPT Trust Dr Robolge Lenora, ST6, HFPT Trust

Aims and hypothesis

Delivering high quality care in an old-age psychiatry ward requires an efficient and coordinated MDT approach. In many settings, a daily board-round has been introduced to supplement the long-established weekly ward-round. The aim is to identify tasks for that particular day which can augment the patient's overall care, minimizing wasted time on the ward and developing momentum towards discharge. On our ward, there was some dissatisfaction with its running, so an audit was conducted to delineate the exact weaknesses and allow for improvement towards the gold-standard.

Background

NHS Improvement promotes a 'Red2Green' board-round approach as part of their 'Safer Patient Flow Bundle' recommendations. A 'red day' is of no value to the patient, whereas a 'green day' means that the patient has received value adding care. In this system, patients start as 'red'; with tasks established in the morning board-round. They are then converted to 'green' at the evening board-round, after task completion. Although mainly designed for acute care, it can be adapted to ensure efficiency on a Psychiatry unit. A gold-standard has been established, and an online tool is available to assess performance.

Method

The board-round process was observed covertly over two weeks, with objective metrics such as time-taken, attendance and frequency recorded, and a staff satisfaction survey completed. The online tool was used, to formally assess for deficiencies. After 2 weeks, an interventional meeting was conducted with the MDT, aiming to highlight flaws and re-affirm aims of the board-round. Important changes were proposed, ranging from formal leadership during the board-round and the need for focus on immediate tasks. Over the next 2 weeks, the board-round was re-audited, with repeat covert observations and surveys. The online tool was also re-checked to assess for improvement.

Results

The 'Red2Green' format of a twice-daily board round was implemented after the initial audit cycle. The average duration of the board-round shortened from 46 minutes to 17 minutes. This correlated with improvement in subjective survey metrics, as perceived efficiency and perceived positive patient impact increased by 67% and 80% respectively. According to the online tool, the new meeting met 4/6 gold-standard criteria, as opposed to 1/6 before intervention.

Conclusion and next steps

The board-round can be a vital part of productive patient care, but there is a need to establish its purpose for the whole MDT. Assessing and improving local practice according to the NHS Improvement gold-standard can help augment positive change.

18. Copycat Suicides: An Audit of Media Reporting of Suicides in Derbyshire

Dr Kiron Griffin, CTI, Derbyshire Healthcare NHS Foundation Trust.

Aims and hypothesis

To evaluate adherence to the Samaritans Guidelines for media reporting of suicides in Derbyshire media between 2018 and 2020. Previous research has indicated variable adherence to the Samaritan's Guidelines, the hypothesis is that media reports of suicide in Derbyshire will have similarly variable adherence to the guidelines.

Background

The Werther Effect describes the increased risk of suicide in the general population with prominent reports of suicides, this effect has been demonstrated around the world. The Samaritans have produced voluntary guidelines around media reporting of suicides to reduce the risk of 'copycat suicides'. The USA and Australia have compulsory rules around media reporting of suicides, and deaths by suicide have subsequently reduced. The Samaritans Guidelines have 7 recommendations which include: providing signposts to obtain support, avoiding reporting the suicide method and averting prominent reporting of suicides.

Method

An audit of all reports of suicide in Derbyshire based media was carried out. The online database Newsbank was searched using keywords 'suicide', 'sudden death' and various suicide methods for articles published between 1st January 2018 and 1st January 2020. The inclusion criteria were: any articles related to confirmed suicide published in a Derbyshire based media outlet between the specific dates. Multiple articles related to the same death were analysed separately if they were published in different media outlets. A scoring system was created based on the Samaritans Guidelines, with a point awarded if the article adhered to each recommendation to a maximum of 7 points. The score for each article was calculated, and the mean score for each media outlet was obtained.

Results

52 articles from 8 media outlets were analysed. The mean score was 4.69/7, indicating partial adherence to the Samaritans Guidelines. There was significant variation, with some examples of poor practice. Only 40% of articles had information around support and 80%

mentioned a suicide method. The findings were presented in an education workshop for journalists in February 2020. Re-audit with same methods was carried out starting in January 2021. Initial results show increased adherence to Samaritans Guidelines.

Conclusion and next steps

An audit of media reporting of suicides in Derbyshire demonstrated variable adherence to the Samaritans Guidelines. This may increase the risk of 'copycat suicide' in the general population, in line with the 'Werther Effect'.

19. Profile of non-attenders at psychiatric outpatient clinics: a comparison of demographic, clinical and risk factors before and during COVID-19 pandemic

Dr Mahum Kiani, FY1, Black Country Healthcare NHS Foundation Trust Dr Nilamadhab Kar, Consultant Psychiatrist, Black Country Healthcare NHS Foundation Trust

Aims and hypothesis

We intended to identify the impact of changes in clinical practice during the COVID-19 pandemic on the profile of non-attenders at psychiatric outpatient clinics, focusing on their demographic, clinical and risk factors. Possibility of a change in the profile of non-attenders was considered as the method of care delivery in outpatients changed to tele-psychiatry during the pandemic.

Background

The rates of missed appointments in mental health settings, reported between 20 and 50%, have been a concern. The method of appointments during COVID shifted to take place over phone or video. It suggested investigation about the impact on attendance and to study the profile of non-attenders.

Method

This project was conducted as a service evaluation; data was collected from electronic records. The sample consisted of non-attenders at psychiatric outpatient clinics in January 2020 (n = 23) (pre-COVID) and November 2020 (n = 32) (during COVID). The groups were compared based on clinical features (diagnosis, medical and psychological treatment, care programme approach, first contact), risk profile (self or others) and demographic features (age, gender, ethnicity, accommodation, occupation, benefits). The outcome after their missed appointments were also studied.

Results

The overall rate of patients who did not attend their appointment was 20% prior to COVID compared with 22% during. More male patients (71%) did not attend during COVID compared to female patients (41.7%) ($p < 0.05$), which was the reverse in the pre-COVID period (29% v 58.3% respectively). The mean age of non-attenders pre-COVID was 45.3 years compared to 36.4 during ($p < 0.05$). There were no differences in ethnicity, first appointment/review, care programme approach status, diagnoses, treatment,

accommodation, employment, occupation or benefits. However, risk to self increased during the COVID period (34.4% v 8.7%, $p < 0.05$) and risk to others decreased (0.0% v 17.4%, $p < 0.05$) in the non-attenders. Significantly more ($p < 0.05$) non-attenders were contacted by letters during COVID (81.3%) than pre-COVID (52.2%); however, following trust guidelines, a higher ($p < 0.05$) proportion of non-attenders were discharged from services during COVID (34.4%) compared to pre-COVID (8.7%).

Conclusion and next steps

During COVID, there were some changes in the profile of non-attenders in psychiatric clinics, especially the composition of gender and associated risks, along with the outcome of non-attendance. It appears there is a need to explore the findings in a larger population. Future projects may look into patients' perspective of the non-attendance, along with the impact of the use of tele-psychiatry.

20. Dr QI- A Quality Improvement (QI) approach to designing and delivering QI training

Dr Deepa Bagepalli Krishnan, ST5, Derbyshire Healthcare NHS Foundation Trust Dr Victor Ohize, CT3, Nottinghamshire Healthcare NHS Foundation Trust Mr Luke Baumber, Associate Director of QI, Nottinghamshire Healthcare NHS Foundation Trust

Aims and hypothesis

We aimed to develop and implement a QI training programme for trainees, Trust grade doctors and Consultants in Nottinghamshire Healthcare NHS Trust (NHFT) to enable them to deliver change in practice through acquisition of new knowledge and practical application of skills in QI projects using Model for Improvement.

Background

QI is crucial to improve patient care. Doctors are uniquely placed to input into patient safety and service delivery of healthcare. The skills required to be future clinical leaders and undertake improvement work are not innate and formal teaching and support is required. What is DrQI? DrQI is a trainee developed and trainee led QI teaching programme developed in collaboration with Trainees improving patient safety through QI (TIPSQI) in North West deanery.

Method

A pre-implementation survey amongst doctors in NHFT in February 2019 suggested that 90% of doctors were interested in learning QI and about 48% preferred face-face workshops with support from the QI team. A list of change ideas were created using a driver diagram with QI education and project support identified as key primary drivers. PDSA cycles Nine interactive workshops teaching key QI concepts (based on model for improvement) in NHFT, training more than 100 doctors. A workshop in Derbyshire Healthcare NHS Foundation Trust (70 doctors) and Nottingham University Hospital (20 doctors). Workshops were continually adapted based on qualitative and quantitative feedback. Different formats were tried including virtual sessions, game-based and problem-based learning approaches using small group activities.

Results

Pre-course and post-course questionnaires were used to assess change in understanding of individual components of QI methodology (SMART Aim, Driver diagram, PDSA cycles,

outcome and process measures and run charts). Mean pre-course self-assessment scores collated from seven QI workshops (2019-2020) was 3.3 and mean post-course score was 7.68, showing an improvement in understanding of QI methodology. Participants were asked to score the relevance (8.4) and quality of teaching (8.4) and the support from the QI team (7.4) on a scale of 1-10 (1=poor and 10= excellent). Additional free text feedback was obtained to help us improve the teaching programme.

Conclusion and next steps

Collaborative leadership trainee-led initiative to increase the QI capacity. A bottom up approach to complement the top down approach from the Trust QI team. Future steps include further collaboration and expansion of the scheme to other Trusts, Train the trainer sessions and building a network of QI champions.

21. Trevicta; A role for long-acting paliperidone depot in the community mental health teams (CMHT)

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Aims and hypothesis

To identify patients from CMHT who could be considered for a switch to Trevicta. To assess the consequences of this switch for patients and professionals. If switched to Trevicta, this could improve the patient experience, be a relevant cost-saving measure and prove beneficial to CMHT.

Background

Trevicta is a long-acting injectable formulation of the antipsychotic, paliperidone. Paliperidone is normally administered as a 4-weekly depot (Xeplion) but it is now available as a 12-weekly depot. Thus, patients require 4 injections annually instead of the standard 12.

Method

Prescribing guidelines and criteria for suitability for Trevicta shared with all CMHT staff. Records from South East CMHT and North West CMHT depot clinics were reviewed and potential candidates identified. If eligible, patients on monthly paliperidone depot switched to Trevicta. After 18 months, patients still on Trevicta were identified. Consent was sought from the responsible clinicians regarding obtaining feedback. Electronic notes were reviewed. Patients and practitioners were contacted by telephone and email and invited to provide feedback.

Results

5 patients were switched from monthly paliperidone depot to Trevicta. At follow-up, 4 out of 5 patients continued on Trevicta. 1 patient discontinued Trevicta after inpatient psychiatric admission. Patients were administered between 4 and 7 doses of Trevicta, at doses of 350mg or 525mg. 3 out of 4 patients consented to feedback; 1 patient was unavailable. Patients and clinicians reported ongoing therapeutic benefit from Trevicta. 3 out of 3 patients reported enhanced quality of life and preferred frequency of

administration and appointments. No patients reported adverse or unwanted side effects. Hyperprolactinaemia was identified for one patient. Clinicians recognised the same advantages for their patients as self-reported. Professionals, however, identified the need for stabilisation of mental health symptoms prior to starting Trevicta. The necessary co-ordination of clinician review, medication orders and administration were also identified as potential barriers.

Conclusion and next steps

Longer acting depot injections need to be considered for all relevant CMHT patients. Trevicta offers patients enhanced quality of life, whilst staff have more available appointment time. As Trevicta is financially cost-neutral, significant cost savings is noted in time. Further reassessments are required as patient numbers increase.

22. Plasma polyunsaturated fatty acids and mental disorders in adolescence and early adulthood: cross-sectional and longitudinal associations in a general population cohort

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Aims and hypothesis

We aimed to examine cross-sectional and longitudinal associations between plasma polyunsaturated fatty acids (PUFAs) and mental disorders in a large cohort of young people. We hypothesised that PUFA measures would be associated with mental disorders cross-sectionally in late adolescence and early adulthood, and longitudinally from late adolescence to early adulthood.

Background

PUFAs may be pertinent to the development of mental disorders, for example via modulation of neuroinflammation and synaptogenesis. However, these associations have not been extensively studied in adolescence or early adulthood.

Method

Participants in the Avon Longitudinal Study of Parents and Children attended clinics at two sampling periods when approximately 17 and 24 years old. Exposures were plasma PUFA measures (total omega-6 [n-6] fatty acids, total omega-3 [n-3] fatty acids, n-6:n-3 ratio and docosahexaenoic acid [DHA] percentage of total fatty acids) assessed using nuclear magnetic resonance spectroscopy. Outcomes were psychotic disorder, moderate/severe

depressive disorder and generalised anxiety disorder (GAD) assessed by the Psychosis-Like Symptoms Interview and Computerised Interview Schedule-Revised. Multiple imputation with chained equations was used to impute missing exposure and confounder data. Cross-sectional and longitudinal associations between standardised PUFA measures and mental disorders were measured by logistic regression, adjusting for age, sex, body mass index and cigarette smoking.

Results

In cross-sectional analyses at age 17 (n=4718), there was little evidence of associations between PUFA measures and mental disorders. In cross-sectional analyses at age 24 (n=3889), the n-6:n-3 ratio was positively associated with psychotic disorder (adjusted odds ratio [aOR] 1.54, 95% confidence interval [CI] 1.16-2.03), moderate/severe depressive disorder (aOR 1.22, 95%CI 1.06-1.41) and GAD (aOR 1.17, 95%CI 1.03-1.32), while DHA was inversely associated with psychotic disorder (aOR 0.58, 95%CI 0.36-0.93). In longitudinal analyses (n=2794), there was evidence of an inverse association between DHA at age 17 and incident psychotic disorder at age 24 (aOR 0.44, 95%CI 0.22-0.87) but little longitudinal evidence for depressive disorder or GAD. There was little evidence for associations between change in PUFAs from 17 to 24 years and incident mental disorders at 24 years.

Conclusion and next steps

These findings provide support for cross-sectional associations between the n-6:n-3 ratio and mental disorders, and between DHA and psychosis, in early adulthood. DHA in adolescence was inversely associated with odds of incident psychotic disorder, suggesting a role for DHA in psychosis prevention. DHA promotes synaptogenesis and may potentially buffer against excessive synaptic pruning in adolescents vulnerable to psychosis, but further studies are required to determine underlying mechanisms.

23. The impact of COVID-19 on psychiatric inpatient care in Northern Ireland

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Aims and hypothesis

This study aimed to determine in what proportion of all mental health inpatients in Northern Ireland (NI) for whom COVID-19 had felt to have contributed to their admission. We hypothesized that the impact would feature in current inpatient presentations and results would help inform future service adaptations.

Background

“Lockdown” regulations were introduced by the NI Executive on 28th March 2020 to restrict the spread of COVID-19. As a consequence there was disruption to delivery of community mental health care, removal of psychosocial supports to many people living with mental illness and wider mental distress for the general population. Acute psychiatric inpatient care is often required when community facilities and supports are not available and were already under significant pressure in NI before the pandemic.

Method

A retrospective cross-sectional survey of all patients in acute psychiatric care in NI's five Health & Social Care Trusts on 22nd July 2020 was completed. COVID-19 was identified as contributing when the clinical team documented it as such in electronic or written notes. Patient data was anonymised and collated in line with each Trust's GDPR recommendations. Statistical analysis was completed using IBM's SPSS statistical package, version 26.

Results

Data collection had been completed from 18 of 26 inpatient psychiatric wards across NI. Of 226 inpatients, 114 (50.4%) were male, 109 (48.2%) under the age of 45 and 135 (59.7%) were single. The majority live in the most socially deprived areas in NI. All available beds were occupied with some facilities requiring extra temporary beds to be utilised. COVID-19 was adjudged to have been a factor contributing to 67 (29.6%) of inpatient admissions and contributed to a delayed discharge in 20 (8.8%). Indirect effects of COVID-19 (such as financial pressures, loss of support from family, friends or services) were noted in 73.0% of cases. Direct effects (such as health anxiety or delusions relating specifically to COVID-19) were noted in 27.0%.

Conclusion and next steps

Our results demonstrate a diverse range of factors related to COVID-19 were implicated in a significant proportion of psychiatric inpatient admissions. Rectifying the loss of community psychosocial support during future lockdown restrictions represents a major public health challenge, particularly when bed occupancy is already at 100% and a repeat survey is planned. The breadth of COVID-19 related factors contributing to admission suggest however that a range of approaches is likely to be favourable to a “one-size fits all” approach.

24. Delineating the classical schizophrenia from Psychosis Spectrum Disorder

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Aims and hypothesis

We hypothesised that cases satisfying criteria for classical schizophrenia exist across the psychotic spectrum disorders including BPAD and schizophrenia. We aimed to delineate a subgroup of classical schizophrenia from a mix of BPAD and schizophrenia cases

Background

Classical schizophrenia, described since the times of Bleuler and Kraepelin, is characterised by enhanced disorganization of mental activity (loosening of association), psychomotor poverty (impoverishment) and impairment of cognition and role-function. Current classification systems are mainly based on easily quantifiable clinical features such as delusions, hallucinations and affective instability and hence the current diagnosis group of schizophrenia and Bipolar affective disorders (BPAD) are heterogenous groups with inherent difficulty in recognising replicable neurobiological pathophysiological processes.

Method

Pre-recorded data of 64 patients with DSMIV diagnosed schizophrenia (n=35), schizo-affective disorder (n=7) and BPAD (n=22) with psychosis was used. Patients were assessed in stable phase of illness. Current disorganization, impoverishment (negative symptoms) and reality distortion (delusions and hallucinations) were derived from Signs and Symptoms of Psychotic Illness (SSPI) scale. Persistent disorganization and impoverishment symptom domain scores derived from using SSPI scale and retrospective review of case notes, along with measure of cognition (Digit symbol substitution test DSST scores), functioning (social and occupational functioning assessment SOFAS scale) and IQ (Quick IQ scores) were used as variables for two step cluster analysis in SPSS version 27. Resultant clusters were compared for clinical and demographic characteristics.

Results

Two step cluster analysis resulted in two natural clusters, with first cluster (n=32) being representative of classical schizophrenia and the second cluster (n=30) containing non-classical/integrated schizophrenia cases. QuickIQ scores were not available for two participants. Classical group contained significant proportion of schizophrenia cases (n=24) as compared to BPAD (n=5) and schizo-affective (n=3). classical schizophrenia group patients displayed current enhanced disorganization, reality distortion and impoverishment, as well as increased persistent reality distortion, disorganization and impoverishment, along with significant cognitive impairment, role-function impairment and reduced pre-morbid intelligence compared to integrated group. There was no significant difference between the clusters for age, duration of illness or antipsychotic dose.

Conclusion and next steps

Classical schizophrenia can be delineated from DSM group of psychotic spectrum disorders. Given the heterogeneity of DSM schizophrenia and the lack of replicability of neurobiological measures, studying the classical schizophrenia will have huge implications towards identifying the underlying pathophysiological process and developing the targeted interventions. These results will have direct beneficial effect for clinical practice.

25. Associations Between Psychosis and Visual Acuity Impairment: A Systematic Review and Meta-Analysis

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Aims and hypothesis

We aimed to synthesise existing evidence regarding the extent of association between visual acuity impairment and psychotic illnesses or symptoms.

Background

Several theories propose that visual acuity impairment or self-reported visual difficulties are associated with psychosis, either through visual acuity impairment leading to psychosis or the converse, or because they share underlying pathology or risk factors

Method

We searched the MEDLINE, Embase, PsycINFO and Web of Science databases for studies published from 1992 to 2020, using the Newcastle Ottawa Scale to assess risk of bias. We narratively synthesized findings, and meta-analysed results judged sufficiently homogenous.

Results

We included 41 papers which reported on 32 studies. We found consistent evidence for an association from eight cross-sectional studies treating visual acuity impairment as the exposure and psychosis as the outcome [pooled Odds Ratio (OR) =1.76, 95% Confidence Interval (CI) 1.34 – 2.31], and four with the reverse exposure and outcome (OR 1.85, 95% CI 1.17 – 2.92). Three case-control studies primarily investigated the association, and three out of a total eight case-control studies found evidence of lower mean visual ability in groups with

psychosis relative to groups without. Evidence from seven cohort studies was inconsistent, which precluded meta-analysis of this study design.

Conclusion and next steps

Although evidence supports a cross-sectional association between visual acuity impairment and psychosis, further research is needed to clarify the temporal direction, given the mixed findings in cohort studies. Understanding the association may give insights into prevention strategies for people at risk of visual acuity impairment and psychosis.

26. Comparison of patient outcomes between staff supervised and non-staff supervised Disulfiram (Antabuse)

Dr Roisin Smith (Locum Consultant in Addiction Psychiatry, SET) Dr Ruth Agnew (CTI, Psychiatry, Addictions) Ms Sonya Johnston (Addictions Manager) Mr Dermot Byrne (Acting Team Lead, CAT) Mrs Joanne Kelly (Keyworker/ASW)

Aims and hypothesis

To compare patient outcomes between Community addiction Team (CAT) and non CAT supervised Antabuse in one CAT site in the South Eastern Trust. The hypothesis states that those who are supervised by staff will better concordance with disulfiram.

Background

Antabuse is an adjunct drug licenced for the treatment of alcohol dependence and is initiated by Addiction Services. Disulfiram prevents the enzyme acetaldehyde dehydrogenase converting acetaldehyde to acetate. This results in an accumulation of acetaldehyde and gives rise to the Disulfiram Ethanol Reaction (DER) which can be life threatening. Supervised consumption of disulfiram leads to better patient outcomes. Patients have a choice between thrice weekly, on site, time allocated, staff supervision or a patient selected, off site supervisor offering daily/thrice weekly supervision at mutually agreed times. This is reflected in our Disulfiram Pathway.

Method

Maxims (a patient data multidisciplinary record system) was reviewed for all Addiction patients between 01/01/2018 and 31/12/2019. Outcome measurements included self-reported drinking on Antabuse, self-reported DER (life threatening versus non-life threatening, NIECR checked) and number of times re inducted onto Disulfiram.

Results

Staff Supervised Antabuse (n=17) 7/17 (41%) relapsed and all were in 50-70 age group. 5/7 (71%) were male. 6/7 (86%) had a dual diagnosis. Average time to first relapse was 11 months. 5/7 (71%) were reinitiated on two or more occasions. 2 of the 5 experienced a non-life-threatening DER. Non-Staff Supervision (n=13) 8/13 (61%) relapsed and 7/8 (88%) were in 30-49 age group. 5/8 (63%) were male. 6/8 (75%) had a dual diagnosis. Average time to first

relapse was 6 months. 5/8 (63%) were reinitiated on two or more occasions. 1 of the 5 experienced a non-life-threatening DER.

Conclusion and next steps

Interpretation of the data is limited due to the small sample size. However, it is apparent that a high percentage of patients who relapsed in both groups had a dual diagnosis. Whilst a higher number relapsed in the non-supervised group, a chi square test was not significant. Binomial tests show that the relapse rate in both conditions was not significantly different from chance. The mean relapse time was shorter in the staff supervised group. However, as variances around the mean were significantly different ($F=8.54$, $p<0.02$) a t-test was employed. However, the results are non-significant, $t(6.78) = 1.40$, $p=.2$. We plan to repeat this study, but will utilise data from the two other CAT sites in the SET. A bigger sample may capture more significant differences. We will continue to offer a choice between staff and non-staff supervised consumption of Disulfiram.

27. The Procognitive Effects of Ketamine – An analysis of Ketamine for reduction of Alcoholic Relapse trial memory data

Mr Andi Stanescu, Medical Student, University of Exeter Professor Celia Morgan, Professor of Psychopharmacology, University of Exeter

Aims and hypothesis

This randomised, double blind, placebo-controlled study examined whether participants who were randomised to receive three weekly ketamine infusions showed improvements in working memory performance relative to those who received placebo infusions. We additionally explored the link between cognitive function at follow-up and abstinence from alcohol.

Background

Over the years ketamine has been used as an effective dissociative anaesthetic and more recently has shown potential as an antidepressant in people whose low mood has not lifted as a response to first-line treatments. There is evidence that ketamine may be beneficial for memory, with the proposed mechanisms being those of synaptogenesis and neurogenesis.

Method

Participants attended the hospital for ten testing sessions, of which three were infusion sessions. They completed a mnemonic similarity task before and after each infusion, once during the final lab session (which did not include an infusion), as well as once during the three and six month follow-up sessions. They also completed a forwards and backwards digit span task on four occasions – at the baseline session, the final lab session, and the two follow-up sessions.

Results

Our findings do not support our main hypothesis that ketamine infusions have a procognitive effect, as measured by the mnemonic similarity task and digit span performance, as we found no differences between the ketamine and placebo group, either acutely or at follow-up. We also did not find a significant link between abstinence from alcohol and performance on the mnemonic similarity task or digit span task.

Conclusion and next steps

This suggests that ketamine does not affect working memory acutely or in the longer term as no positive effects were found. We did not identify any significant detrimental cognitive effects of ketamine either, as similar results were observed for the placebo group, in contrast with findings from studies which found that ketamine has a detrimental effect on memory. It is possible that the negative effects become apparent at higher or more frequent doses than those received by the participants in our study.

28. Do children with recurrent abdominal pain grow up to become adolescents who control their weight by fasting? Results from a UK population-based cohort.

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Aims and hypothesis

Recurrent abdominal pain (RAP) is the most prevalent GI problem of childhood, and this study aimed to explore longitudinal associations between persistent RAP (at ages 7 and 9) and fasting for weight control at 16.

Background

Gastrointestinal (GI) problems are common in eating disorders, but it is unclear whether these problems predate the onset of disordered eating.

Method

The Avon Longitudinal Study of Parents and Children (ALSPAC) is a UK population cohort of children. Childhood RAP was reported by mothers and defined as RAP 5+ (5 pain episodes in the past year) in our primary analysis, and RAP 3+ (3 pain episodes) in our sensitivity analysis. Fasting for weight control was reported by adolescents at 16. We used logistic regression models to examine associations, with adjustments for potential confounders.

Results

After adjustments, we found no association between childhood RAP 5+ and adolescent fasting for weight control at 16 (OR 1.30 (95% Confidence Intervals (CI) 0.87, 1.94) $p= 0.197$). However, we did find an association between RAP 3+ and later fasting, in the fully adjusted model (OR 1.50 (95% CI 1.16, 1.94) $p= 0.002$), and after excluding those with pre-existing anxiety (OR 1.52 (95% CI 1.17, 1.97) $p= 0.002$).

Conclusion and next steps

Our findings suggest a possible independent contribution of RAP to later risk of fasting for weight control, and RAP should be enquired about in the assessment of eating disorders. However, frequency of childhood abdominal pain (as captured by ALSPAC) may be less important to long term outcomes than functional impairment.

29. “Old age doesn’t come alone” – the value of involving a lay contributor in a PhD

Dr Lucy Stirland, Postdoctoral Clinical Lecturer and ST6 in Old Age Psychiatry, University of Edinburgh and NHS Borders; Mrs Mary Nisbet, Lay Contributor, Edinburgh

Aims and hypothesis

By involving a lay contributor in my PhD, I aimed to relate my work to an individual older person’s context, to understand patient priorities and to develop my public engagement skills.

Background

Patient and public involvement (PPI) is increasingly important in clinical research settings, especially when using public and charitable funds. Many large trials now involve lay representatives, but there is less emphasis on PPI for researchers with smaller projects. My PhD was on the epidemiology of multimorbidity, polypharmacy and mental health in ageing, using large datasets.

Method

With the help of a PPI Advisor, I wrote an “advert” describing my research and the lay involvement I envisaged. I found potential contributors through a local ageing research network and ethics approval was not required. My lay contributor, Mary Nisbet, volunteered to meet every two months to discuss my research over coffee. She is in her 80s, has multimorbidity and takes multiple medicines. She consented to participate for the duration of my PhD and to being named.

Results

Mrs Nisbet and I were in contact between October 2017 and June 2020. We started by planning the lay contributor role together, then I summarised my PhD and introduced her to my supervisors. I shared the results of my research with her and gave feedback on conferences I attended. She highlighted emergent issues that were important from a patient’s perspective. We both participated in a priority setting partnership survey on multimorbidity in later life, and then analysed the top ten priorities that this process generated. We discussed relevant current affairs such as healthcare data privacy. Mrs Nisbet gave me her views on a systematic review manuscript and reviewed the article’s lay

summary for readability. The final chapter of my PhD thesis focused on our work together; by preparing this I gained further appreciation of PPI in multimorbidity.

Conclusion and next steps

I found Mrs Nisbet's input very valuable. It allowed me to see my work from a different angle and through the eyes of an individual to whom it could be applied. This was particularly refreshing when working with big data. Mrs Nisbet said that "old age doesn't come alone", meaning that as she has aged, many symptoms and diagnoses seemed to happen at once. She enjoyed being involved with research and appreciated the fact that a researcher was interested in hearing the views of someone who receives healthcare.

30. Exploring the psychological impact of living with and after cancer following major pancreatic surgery. A qualitative study

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Aims and hypothesis

Our study aimed to explore patients' experiences of surgery and living with pancreatic cancer, and identify opportunities to optimize psychological wellbeing. We hypothesized that a cancer diagnosis and major surgery would have an adverse effect on patients, and recovery would be challenging.

Background

Pancreatic cancer is the 10th most common cancer in the UK. Most patients are diagnosed at a late stage, after metastasis, but around 10-15% undergo a pancreaticoduodenectomy. Few studies have explored patients' experiences of surgery and recovery, with limited research considering the psychological wellbeing of patients or their support needs.

Method

Ethical approval was obtained. Semi-structured interviews were conducted with patients who had undergone pancreaticoduodenectomy for pancreatic or distal biliary duct cancer at a specialist hepato-pancreatic-biliary centre in Northwest England. Interviews explored their experience of the diagnostic process and surgery, the impact of cancer on their life, and how they sought support. Interviews were audio-recorded, transcribed and anonymised. Data were analysed using a thematic approach and the principles of constant comparison. Analysis of 20 interviews is reported.

Results

Analysis identified the following main themes: diagnosis and decision-making around surgery; recovery from surgery and chemotherapy; burden of monitoring and ongoing symptoms; adjusting to 'a new normal'; understanding around prognosis; support-seeking. Participants seized the chance to have surgery, often without seeming to absorb the risks or their prognosis, and rarely sought additional information themselves. Both surgery and chemotherapy were difficult to recover from, but chemotherapy was frequently cited to be more challenging and caused a setback in surgical recovery. Several aspects of participants' lives had changed since surgery, including their physical stamina, social lives and ability to engage in activities they had previously enjoyed. They perceived that they were unable to control their life trajectory and reported anxiety around their appointments, although they valued close monitoring. There were tensions in their reports of how they sought support; they valued clinical nurse specialists (CNSs) as well as family and friends, but found asking for emotional support difficult.

Conclusion and next steps

Patients should be made aware of the potential psychological sequelae of a cancer diagnosis and treatment. CNSs were identified as key members of the team in proactively offering support; further training for CNSs should be encouraged. Understanding patients' experience of living with cancer and the impact of treatment is crucial in enabling the development of improved support interventions.

31. Establishing the timeliness and quality of Care Programme Approach (CPA) reviews for service-users in a complex psychiatric care in-patient unit for older adults

Dr Ravinder Kaur Hayer (ST5 in OA Psychiatry, Birmingham and Solihull Mental Health Foundation Trust), **Ella Tumelty** (Medical Student, University of Birmingham), Dr Laura Fisk, (Clinical Psychologist, Birmingham and Solihull Mental Health Foundation Trust), Dr Sambavi Navaratnarajah (CT2, Birmingham and Solihull Mental Health Foundation Trust), Dr Farooq Khan (Consultant Psychiatrist, Birmingham and Solihull Mental Health Foundation Trust).

Aims and hypothesis

To determine whether CPA reviews are carried out in accordance with the trust policy at a 16 bedded in-patient unit in the West Midlands designed for older adults with complex mental health needs

Background

The CPA was introduced in England in 1991 as a framework for providing patient-focused, co-ordinated care to individuals with severe or complex psychiatric illness. CPA provides service users with a care-coordinator and care plan. It involves regular reviews of needs and risk assessment to allow the individual and evolving needs of the service users to be identified and met. It has been suggested that a barrier to successful CPA implementation may be the time required and perceived complexity of processing and updating the documentation.

Method

The electronic patient records for older adults at a complex care unit were reviewed for the 12-month period prior to 1st November 2019. It was initially determined whether each service user had a CPA review in past 12 months before each review was scrutinised for quality against the minimum standards outlined by the Trust.

Results

14 of the 15 service users considered had a CPA review within the last 12 months however none of these reviews had the minimum information outlined in the Trust policy. There was input from service users or their family/carer's in 67% of the reviews. Ward nurses and medics had contributed to the majority of reviews (93% and 87% respectively), however,

there was a distinct lack of input from the wider MDT and the contribution of the GP acknowledged in only 7%. The changing needs and circumstances of service users were documented in 63% of the reviews and in 87% there was a comment on progress towards outcome or discharge.

Conclusion and next steps

It was encouraging that 93% of patients had an up-to-date CPA review. However, the quality of these reviews was sub-optimal. A review of existing literature has indicated that may be due to lack of time or perceived complexity of the review process. In order to overcome this, we have designed a novel CPA review template to capture all of the critical areas for consideration. This is currently being piloted on the in-patient unit and the results of this pilot scheme will be included in the poster presentation and inform future practice.

32. The experience of patient dropout from eating disorders treatment: A systematic review and qualitative synthesis

Miss Cecilia Vinchenzo, Undergraduate Medical Student (Lancaster University), IoPPN King's College London, Miss Catherine McCombie, PhD Student and Research Assistant, IoPPN King's College London, Dr Vanessa Lawrence, Senior Lecturer, IoPPN King's College London

Aims and hypothesis

The aim of this review is to synthesise the current qualitative literature available on the patient experience of dropout from eating disorder services and understand the reasons motivating early treatment termination.

Background

Eating disorders are serious and debilitating mental health conditions associated with high relapse and mortality rates and significant psychiatric co-morbidities. Research suggests approximately 50% of patients with an eating disorder dropout prematurely from treatment services, fostering poorer health outcomes and impacting significantly on patients, their families, health services and research quality.

Method

A systematic search was carried out and articles selected from MEDLINE, PsycINFO, EMBASE and CINAHL. Studies were included if they explored eating disorder treatment dropout using qualitative data collection or analysis methods. Study quality was critically appraised using the Critical Appraisal Skills Programme qualitative research evaluation tool. Thematic synthesis was used to interpret and synthesise themes from the primary studies.

Results

Ten studies met the inclusion criteria for the systematic review. Five studies were scored as high quality and five as medium quality. 14 descriptive sub-themes encompassing the dropout experience were identified under four overarching analytical themes: inner conflict, connection and communication with others, experience of the treatment service, and factors related to progress in treatment.

Conclusion and next steps

The decision to drop out from eating disorder treatment is a complex, multi-faceted issue, involving an interplay between individual, social and service-level factors. This review highlights the need for further high quality qualitative investigation into dropout experiences, with an effort to increase representation across ethnic groups and gender identities. This review also identifies the need for a reconsideration of current clinical practice and services provision with an emphasis on the use of patient perspectives to guide decision making in eating disorder services delivery and research. Moreover, the findings emphasise the need for standardised dropout definitions, fostering a unified literature base.

33. Aripiprazole as a risk factor for impulse control disorders: A systematic review.

Dr Benjamin Williams, ST4, LSCFT Dr Saumya Singh, ST4, GMMH Dr Inti Qurashi, Consultant, Mersey Care Dr Kishen Neelam, Consultant, GMMH

Aims and hypothesis

We hypothesised that use of aripiprazole is associated with an increased risk of impulse control disorders. We aimed to conduct a systematic review of the available observational study evidence on the potential association between aripiprazole and impulse control disorders.

Background

Aripiprazole is an anti-psychotic medication widely used for bipolar affective disorder and depression. Its primary mechanism of action is as a partial dopamine agonist. Aripiprazole's effect on dopamine signalling in the mesolimbic and mesocortical pathways may lead to impulse control disorders, as seen with other dopamine agonist medications. Aripiprazole is often chosen by prescribers because of its favourable side effect profile. There is a need to synthesise the available epidemiological literature on the potential association between aripiprazole use and impulse control disorders to inform patients and prescribers of the best available evidence regarding this potential association.

Method

The exposure of interest was aripiprazole and the comparison group other medications. Databases were searched using Medline, PsychINFO, EMBASE, and the Cochrane Clinical Trials database. The study designs eligible for inclusion were cohort studies, cross-sectional surveys, pharmacovigilance and administrative databases. Exclusion criteria were studies of populations with traumatic brain injury, learning disability, autistic spectrum disorders or psychosis secondary to medical illnesses. All studies of adult populations to December 2020 were included. Outcomes sought included clinician diagnosis, structured interview diagnosis, and interviewer or self-completion questionnaires. We used ROBINS-I tool and GRADE assessment to measure the risk of bias.

Results

240 records were retrieved, 187 after duplicates were removed. 8 full text articles were assessed for eligibility, of which 4 were included in the qualitative synthesis. 2 studies were

analyses of spontaneous adverse drug reaction reporting systems and 2 of health insurance claims databases. All 4 studies found aripiprazole to be associated with greater risk of impulse control disorders. The single study which compared directly with other antipsychotics had a much smaller effect size. Study heterogeneity precluded meta-analysis. All studies were at high risk of bias. The quality of evidence is very low.

Conclusion and next steps

The available evidence is consistent with the existing warnings regarding increased risk of impulse control disorders in patients prescribed aripiprazole. Clinicians may wish to monitor for this adverse drug reaction. Further research which can account for potential confounders, examines specific impulse control disorders and which is less susceptible to detection and ascertainment biases is required.

34. A study examining whether social cognitive abilities impact on recovery from PTSD

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Aims and hypothesis

Here we present a protocol and preliminary data for a study that aims to evaluate whether pre-treatment social cognitive deficits are associated with treatment outcomes following trauma-focused therapy for post-traumatic stress disorder (PTSD).

Background

Deficits in social cognition (the ability to recognise and understand emotions, intentions and actions in oneself and in others) have been found in people with post-traumatic stress disorder (PTSD). Few studies so far have examined whether social cognitive ability impacts on PTSD recovery.

Method

The protocol was developed after discussion with Patient and Public Involvement (PPI) groups, and a battery of social cognitive tasks was trialled on 20 participants without PTSD. The final protocol was then developed using information and feedback from these preliminary studies. We aim to recruit 60 individuals who are about to start a trauma-focused therapy for PTSD within the two tertiary PTSD services. Social cognition (measured using a variety of tasks including Reading the Mind in the Eyes Task and the Reflective Functioning Questionnaire) and potential confounders (including severity of trauma history, attachment and verbal IQ) are assessed at baseline, prior to the start of therapy. PTSD symptom severity (measured using the PCL-5) and daily functioning (measured using the WSAS) are assessed pre and post-treatment. The primary aim of the study is to examine whether baseline social cognition is associated with the degree of improvement in the PCL-5.

Results

So far 35 participants have been recruited and consented. 9 participants have completed follow-up assessments. The study has been adapted for the covid-19 pandemic so participants can complete the tasks remotely. Preliminary results show a moderate negative correlation between baseline social cognitive abilities and baseline PTSD symptom severity (Spearman's correlation -0.30) and functional abilities (Spearman's correlation -0.42).

Conclusion and next steps

Development of our study in collaboration with PPI and preliminary testing of measures suggests it is likely that it will be feasible for us to conduct this study in this patient group. Baseline preliminary results show/suggest a moderate correlation between PTSD symptom severity and social cognitive impairment. Our main analyses, when completed, will help to determine whether social cognitive ability is associated with recovery from PTSD. Chantelle Wiseman is funded by a Wellcome Trust grant through the GW4 CAT programme.

35. Needs Assessment in Psychiatry Higher training- a peer led educational programme

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Aims and Methods

To improve the quality of the one-year general adult and old age psychiatry higher trainee teaching programme (2019/20) and to increase trainee engagement in the programme to meet training needs for learners.

Background

The concept of needs assessment is well established in continuous medical education but there is limited information on its role in postgraduate medical training programmes. The Royal College of Psychiatrists (RCPsych) higher psychiatry training curriculum is 'learner-centred' seeking to facilitate trainees to explore their interests within an outcome framework via self-directed learning and structured teaching. In the East Midlands (North) deanery, there has been a peer-led, monthly academic programme for higher trainees in General Adult Psychiatry (GAP) and Old Age Psychiatry (OAP). In 2019, numerous issues were identified that indicated that the programme might not be maximising educational benefit.

Method

A root cause analysis highlighted several issues with the structure and content of the training programme such as the didactic nature of the sessions; design based on the local availability of the speakers rather than learning or training needs of the trainee cohort. A driver diagram helped us generate change ideas to address these issues. We used the RCPsych higher trainees curriculum (GAP and OAP) and adapted Hennessy-Hicks Training Needs analysis questionnaire to design the survey as this instrument is tailored for use specifically with health care setting. A 30 item questionnaire under seven themes was designed. Each item in the questionnaire was rated along a 7-point scale in 2 different ways - how important a task is to the respondent's job (Rating A); and how well the task is currently performed (Rating B). We repeated the training needs survey after 18 months to evaluate outcome of the educational programme.

Results

The difference in the rating A and B for each item was calculated to indicate the training need against each of the 30 item questionnaire. The initial training needs survey (response rate- 56%) helped us identify learning themes which shaped the teaching programme during 2019-2020. A repeat survey (response rate -39%) indicated some reduction in the training gaps across various themes.

Conclusion and next steps

The results of the second needs analysis survey will help shape the training programme for 2021/22. A systematic peer-led approach to analysing the issues with the training programme and using a training needs analysis based on the curriculum helped shape the training programme making this relevant, applicable and learner led.

36. Urine drug screening among patients on admission to acute psychiatric wards in south London

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Aims and Methods

We aimed to improve the use and documentation of urine drug screen tests (UDSs) among patients on admission to South London and the Maudsley NHS Foundation Trust (SLaM). We hypothesised a suboptimal rate of UDS documentation, and a prolonged duration between admission and UDSs being offered.

Background

UDSs are useful aids in establishing illness aetiology and to support the management of substance use disorder. Unfortunately, the UDS result and patient refusal of UDSs, is often not documented. This hinders psychiatric diagnosis and management of substance use.

Method

A prospective quality-improvement study with a two-staged intervention was conducted. Electronic patient records of 40 patients admitted to SLaM were reviewed 14 days from their date of admission for:

- 1) Baseline patient characteristics: sex, age
- 2) Documentation in assessments or notes sections of UDS being performed, declined, or unobtainable
- 3) Duration (in days) between admission and UDSs being offered
- 4) UDS included in care plan if it had not been offered

Staged interventions to improve documentation include:

- 1) Presentation and discussion of findings in the weekly consultants', daily managers', and weekly Nelson ward governance meetings.
- 2) An educational session led by the dual diagnosis nurse (planned for 30/03/2021). Presentation and discussion of findings at the monthly ward managers' and the monthly quality improvement meeting. Forty patients admitted post intervention were reviewed.

Results

Following intervention one, the proportion of patients with documentation of UDS being offered increased from 35.0% pre intervention, to 55% post intervention. Of all patients reviewed, only 27.5% pre-intervention and 45.0% post intervention had a test done, whereas a minority (7.5% pre, 10% post) refused it or were unable to provide a urine sample. Most documentation was entered under the assessments section, both pre (71.0%) and post intervention (72.7%). Both audit stages demonstrated that UDSs were most often offered on the day of admission or on the following day. Post intervention, UDSs offered on day 0 or 1 improved from 57.1% pre to 68% post intervention. However, there was a wide range (maximum 7 days), with many taking place once most substances are not traceable. Over half (52.4% pre, 76.1% post) of patients who had no documentation of a UDS, had this included in their care plan. Results from the second intervention will be presented.

Conclusion and next steps

Rates of UDS documentation in inpatient settings requires improvement, which can be promoted by increasing awareness among nursing and senior management staff.

