MRC/AHRC/ESRC ADOLESCENCE, MENTAL HEALTH AND THE DEVELOPING MIND: Engagement Awards

MR/T046317/1: Sleep, circadian rhythms and mental health in schools (SCRAMS)

Led by: Professor Daniel Smith, College of Medical, Veterinary & Life Science, University of Glasgow

Co-I's:
Professor Malcolm von Schantz, Biochemistry & Physiology, University of Surrey
Professor Alice Gregory, Psychology, Goldsmiths College
Dr Joanna Inchley, College of Medical, Veterinary &Life Sciences, University of Glasgow
Dr Breda Cullen, College of Medical, Veterinary &Life Sciences, University of Glasgow
Professor Sharon Simpson, College of Medical, Veterinary &Life Sciences, University of Glasgow
Dr Stella Chan, School of Health in Social Science, University of Edinburgh
Dr Heather Whalley, Centre for Clinical Brain Sciences, University of Edinburgh
Dr Cathy Wyse, Conway Institute of Biomolecular and Bio, University College Dublin
Dr Mark Matthews, School of Computer Science, University College Dublin
Dr Laura Lyall College of Medical, Veterinary & Life Sciences, University of Glasgow

Collaborative organisations:
Sleep Scotland, Schools Health and Wellbeing Improvement Research Network (SHINE), Transdisciplinary Research for the Improvement of Youth Mental Public Health Network (TRIUMPH), Department of Experimental Psychology, University of Oxford, Children's Neuroscience Centre, Guy's & St Thomas's NHS Foundation Trust, Mental Health Foundation

Project summary:
Adolescence is a critical developmental period during which getting enough high-quality sleep becomes a major challenge. Poor sleep represents an important (but under-researched) risk factor for mental ill-health in young people. The sleep, circadian rhythms and mental health in schools (SCRAMS) consortium will investigate the complex relationships between sleep, light exposure and mental wellbeing in school-aged children, with a view to developing new interventions for the future.

The objectives are to:
- To deliver a comprehensive programme of public engagement focused on sleep and mental health in schools, in collaboration with the charity *Sleep Scotland*.
- Delivery of a series of feasibility studies that will include: a) testing a novel wearable sensor for light in adolescents; b) collecting objective activity/sleep data and light exposure data during the winter and summer months and at different latitudes; c) feasibility work on sleep and cognitive functioning in adolescent pupils; and d) assessing facilitators and barriers to the collection of biological samples in schoolchildren.
- Three SCRAMS collaboration meetings over the course of the year, including key stakeholders and project partners, to grow the consortium and coordinate our research and public engagement activities.
- SCRAMS website: www.gla.ac.uk/scrams

MR/T046562/1: Future Minds NI

Led by: Professor Siobhan O'Neill, School of Psychology, University of Ulster

Co-I's:
Professor Gavin Davidson, School of Social Science, Education & Social Work, Queen's University of Belfast
Professor Maurice Mulvenna, School of Computing & Mathematical Science, University of Ulster
Dr Elaine Murray, School of Biomedical Sciences, University of Ulster
Dr Edel Ennis, School of Psychology, University of Ulster
Dr Raymond Bond University of Ulster School of Computing & Mathematical Sci
Professor Colum Walsh, School of Biomedical Sciences, University of Ulster
Dr Margaret McLafferty, School of Biomedical Sciences, University of Ulster

Collaborative organisations:
Mental Health Foundation (MHF), NI Commissioner for Children and Young People (NICCY), Youth Action NI, Action Mental Health (AMH)*,* Action Mental Health, The Department of Health, The Royal College of Psychiatrists in NI, Public Health Agency

Network summary:
The Future Minds Research Network will support the establishment of a research community and multidisciplinary teams to build research with, and for, young people in Northern Ireland. NI currently has high rates of mental illness and suicide and there are concerns about the effects of intergenerational transmission of trauma from the years of conflict, and the effects of parental trauma exposure on the mental health of young people.

The Network therefore has two themes:
1. adolescent mental health and suicidal behaviour
2. intergenerational trauma. There are two targeted groups: marginalised young people in deprived areas; and college students.

The project includes pilot studies that align with the research team's ongoing work, but adds substantial new elements to them to understand the biopsychosocial processes involved in intergenerational trauma and the potential use of chatbots to promote wellbeing.
The Network will identify the mental health research needs for young people in NI through an agenda setting exercise with young people themselves, and an evidence review, both of which will be disseminated to stakeholders, and launched at mini conferences and policy round tables, in collaboration with our partner mental health charities and the government Departments and the leading youth agencies who supported the application.
The Future Minds Network will have benefits for young people in NI, the UK, and internationally. It will underpin future studies to advance our understanding of adolescent mental illness, and support the development of novel interventions to promote the well-being of future generations.

MR/T046732/1: The DREAM Project: Diversity, Research, and Engagement for Adolescent Mental Health

Led by: Dr Laura Nellums, School of Medicine, University of Nottingham

Co-I's:
Dr Laura Asher, School of Medicine, University of Nottingham
Dr Manish Pareek, Infection Immunity and Inflammation, University of Leicester
Professor Panos Vostanis, Neuroscience& Psychology, University of Leicester

Collaborative organisations:
Nottingham and Notts Refugee Forum, Nottingham Arimathea Trust, Hot Yoga Nottingham , English for Speakers of Other Languages, The Red Cross, The Race Equality Centre, Leicester City of Sanctuary, American Public Health Association Caucus for Refugee and Immigrant Health

Network summary:
Children and adolescents from migrant backgrounds may be at increased risk of poor mental health outcomes due to exposure to stressful or traumatic events before, during and following migration. However, there has been limited research on ways to protect their mental health. There is also little understanding of how to best connect with these groups to support their engagement in research or health services, or to ensure that interventions are appropriate, effective, and sustainable. Creative and arts-based approaches have been used to engage with youth from diverse backgrounds, and to promote mental health and resilience.

The aim of this research is to utilise participatory research methods and art-based approaches to strengthen evidence on the mental health needs of children and adolescents from migrant backgrounds, and effective strategies to strengthen engagement and mental health promotion.

The specific objectives are to:

1) Establish a sustainable foundation for future research and engagement in this area through the development of a multidisciplinary and cross-sectoral research network, and youth mental health consortium;
2) Investigate mental health needs, and conceptualisations of risk factors, resilience, and barriers to engagement among children and adolescents with migrant backgrounds through a mixed-methods survey and photovoice project;
3) Develop and pilot a co-produced arts-based mental health promotion intervention through collaboration with the youth consortium.

The research will support cross-sectoral, interdisciplinary, and participatory research in this field going forward, through the development of the research network and youth mental health consortium.

MR/T046864/1: Adolescent Mental Health and Development in the Digital World

Led by: Professor Chris Hollis, School of Medicine, University of Nottingham

Co-I's:
Professor Ellen Townsend, School of Psychology, University of Nottingham
Dr Matteo Bastiani & Dr Elvira Perez, School of Medicine , University of Nottingham
Dr Petr Slovak, KCL, Informatics, & Professor Edmund Sonuga-Barke , Child and Adol Psychiatry, KCL
Professor Marina Denise Anne Jirotka, Computer Science, University of Oxford
Professor Chris Greenhalgh & Professor Steve Benford, School of Computer Science, University of Nottingham
Professor Sally Merry & Dr Karolina Stasiak, Psychiatry and Behavioural Science, University of Auckland
Professor Sonia Livingstone, Media and Communications, LSE
Professor Paul Stallard, Department for Health , University of Bath
Professor Anna Cox, Interaction Centre & Professor Yvonne Rogers, Computer Science, UCL
Dr Praveetha Patalay, Institute of Cardiovascular Science & Professor Yvonne Kelly, Epidemiology and Public Health, UCL

Collaborative organisations:
Samaritans, XenZone Ltd, Institute of Psychiatry, Psychology & Neuroscience (Kings College London), London School of Economics and Political Science (LSE), University of Bath, Auckland University, University College London, University of Oxford, The McPin Foundation, Anna Freud Centre National Schools in Mind Network, Department of Health and Social Care, Department for Culture, Media and Sport, National Institute for Health and Care Excellence (NICE), NHS England, Public Health England, NHSX and Local Authorities.

Project summary:
Our vision is to harness the potential of digital technology to transform adolescent mental health and wellbeing and provide a safe, and supportive, digital environment to tackle the growing humanitarian crisis of unmet need arising from mental health disorders in young people (covering the definition of adolescence from age 10 up to the age of 25).

Our project address two key research challenges:
- Harnessing digital technologies to identify those young people at risk of mental health problems and developing personalised digital interventions that bridge the adolescent mental health treatment gap.
- Understanding how the digital environment influences, and is influenced by, adolescent mental health problems, brain and cognitive development and what factors promote resilience.

Our engagement activities will bring together a diverse range of researchers and stakeholders to address pressing societal, public policy and research questions concerning how the new 'digital environment' affects, and can better support, young people's mental health.

Outputs and impact:
- An interdisciplinary research community and road map for adolescent digital mental health.
- A technical and ethical framework to collect, share, discover and analyse sensitive personal data that matches the speed of digital innovation.
- Evidence-based advice to safeguard youth from harmful digital environments and design tools to promote resilience.

MR/T046260/1: Understanding and enhancing mental health competence - a promising new approach to improving lives for young people

Led by: Professor Russell Viner, GOS Institute of Child Health, University College London

Co-I's:
Professor Jessica Deighton, University College London
Dr Mina Fazel, Department of Psychiatry, University of Oxford
Dr Steven Hope, GOS Institute of Child Health, University College London
Professor Ingrid School, Institute of Education, University College London

Collaborative organisations:
Association for Young People's Health, University of Cambridge, The Health Foundation, Imperial College London, Murdoch Children's Research Institute, National Children's Bureau (Young Research Advisors).

Project summary:
Mental health competence (MHC) is a strengths-based approach to the assessment of positive mental health in young people. MHC includes skills for getting along with and caring for others and the capacity to manage emotions and behaviour. Improving MHC skills through school-based Social and Emotional Learning (SEL) programmes holds potential for a range of benefits, from a reduction in participation in risky behaviours to higher educational achievements. However, there are a number of knowledge gaps around implementation and impact of interventions to improve MHC, which this multidisciplinary project will address.

Our aim is to accelerate the development of MHC interventions to improve young people's lives. We will integrate insights drawn from the lived-experience and research, including engagement with young people, practitioners and policy stakeholders, reviews of existing school-based interventions, and new analyses of intervention trial and population cohort data.

During the year we will:

1. Work with young people, health and education practitioners and policy stakeholders to understand how MHC might operate and be intervened upon in school settings;

2. Investigate whether existing school interventions that improve adolescent outcomes operate through increasing MHC. We will test the extent to which positive outcomes from such interventions are mediated by an improvement in MHC;

3. Investigate the potential for changes in MHC to improve adolescent outcomes at a population level.

MR/T046716/1 Adolescence, digital technology and mental health care: exploring opportunity and harm

Led by: Dr Lucy Biddle, Bristol Medical School, University of Bristol

Co-I's:
Dr Helen Bould, Bristol Medical School, University of Bristol
Dr Oliver Davis, Bristol Medical School, University of Bristol
Professor Rachael Gooberman-Hill, Clinical Science, University of Bristol,
Dr Claire Haworth, Experimental Psychology, University of Bristol
Professor Ulrika Maude, School of Humanities, University of Bristol
Dr Roisin Mcnaney, Electrical and Electronic Engineering, University of Bristol
Professor Paul Moran, Bristol Medical School, University of Bristol
Dr Nicholas Turner, Bristol Medical School, University of Bristol
Dr Myles-Jay Linton, Bristol Medical School, University of Bristol

Collaborative organisations:
MeeTwo Education Ltd, People in Health West of England (PHWE), 'Off the Record' (local young person's mental health service), Orygen National Centre of Excellence in Youth Mental Health in Australia, NHS Somerset CCG, Elizabeth Blackwell Institute, University of Bristol, QuintET group, University of Bristol, Emerging Minds network

Project summary:
Our collaboration will pave the way for a substantial programme of research focused on the relevance of adolescents' digital technology use in consultations about mental health. We will explore both opportunities and harms posed by digital technology use and if addressing these in consultations can help clinicians to manage patient risk. Three workstreams of activity will take place focused on stakeholder engagement, collaboration building across academia and industry, and pilot research exploring questions around whether young people's technology use can be drawn upon to enrich face-to-face consultations, used as a tool to make these work better and more efficiently; and whether clinicians have a role to play in safeguarding against harmful use.

Our key objectives are to:
- Engage with young people, their supporters, health and social care practitioners, and digital technology providers to identify the most pressing questions and acceptable ways to research these; and generate an online stakeholder hub to enable us to become a working community of practice
- Scope current informal practice and innovation at the interface between clinical encounters in mental health care and young people's technology use in relationship to their mental health
- Conduct two pilot projects which will i) begin to explore the feasibility of using mental health app data to assist with clinical history taking and triage; and ii) use Delphi methods to derive guidelines about the best ways for mental health clinicians to talk to young people about technology use where this may present risks to their mental health.

MR/T046597/1: Be Seen: an arts-led participatory approach to understanding 'big data' in young people's mental health and use of images by young people

Led by: Professor Ann John, Medical School, Swansea University

Co-I's
Professor Karen Ingham, Digital Artist
Professor Louise Jane Condon, College of Human and Health Sciences, Swansea University
Dr Ashrafunnesa Khanom, Institute of Life Science Medical School, Swansea University

Collaborative Organisations
MQ Mental Health, Volcano Theatre , Fotonow , Plymouth Youth Services, Discovery Student Volunteering Service, Ethnic Minorities & Youth Support Team Wales, Orygen, Plymouth City Council

Summary:
'Big data' is a buzzword in many areas of our lives. The rapid linkage of information from a wide range of sources - health, social media- has resulted in hope for a new era of research into young people's mental health. The Adolescent Mental Health Data Platform (ADP) aims to harness this step-change bringing together multiple sources of 'big data' anonymously and securely in one place, protecting young people's privacy.

The successful 'Be Heard' initiative brought together the voices of young people affected by mental health issues and directs the type of content we create around this data.

This newly funded project will now develop this initiative into 'Be Seen.' A series of workshops will be held to bring young people aged 16-24 together with professionals from arts, data science and medicine. Young people are keen to share their stories and now do this predominantly through imagery (both photography and moving images/ videos). These workshops will equip young people with creative thinking skills, to discuss issues such as ownership of images and the tension between the intent behind a post and it's interpretation by those viewing it. There will also be discussions on the use of their data using our real 'big data' projects as examples.

Workshop participants will include those who have experienced mental health problems or who have self-harmed. One workshop will be held with young people from the Gypsy and Traveller community and include discussions on a current 'big data' project in their community. Another will run with Refugee and Asylum Seeker young people. These workshops will also explore alternatives to photography including filmmaking and creative spaces in virtual reality.

Following these workshops researchers will work one-to-one with young people to create pieces of artwork. Alternatives to photography will be explored and young people will be equipped with the tools to manage tension between intent and interpretation and to create imagery as catharsis without increasing risk to themselves or others.   The artwork created by these young people will be showcased in an online exhibition and film. The exhibition will be open to the public and will highlight the critical thinking and skills covered in the creation of pieces. The exhibition will also aim to raise awareness of issues around the use of 'big data' and narratives through images, facilitate open discussions and the reduction in stigma.

MR/T04618X/1: Agency, Social Identity & Justice in Mental Health: A Collaboration with Young People, Clinicians & Academics across Philosophy, Ethics & Neuroscience

Led by: Professor Rosemarie McCabe, School of Health Sciences, University of London

Co-Is
Matthew Broome, School of Psychology, University of Birmingham
Professor Lisa Bortolotti, School of Philosophy, Theology & Religion, University of Birmingham
Dr Michael Larkin, School of Life and Health Sciences, Aston University

Collaborative organisations:
The McPin Foundation, Institute of Cognitive Neuroscience at University College London, Max-Planck Research Institute for Social Neuroscience, Cognitive Neuroscience, Aston University, Uehiro Centre for Practical Ethics, University of Oxford, East London NHS Foundation Trust, Birmingham Women's and Children's NHS Foundation Trust

Project summary:
Young peoples' sense of agency and social identity is developing. Mental healthcare interactions offer access to treatment and support. However, from our consultations with young people, we are aware how disenfranchised they can feel, when services seem to speak a different language that does not involve them, address their needs in a way they feel is helpful and respect their agency. We will explore how young people feel helped or harmed by mental healthcare interactions. Ultimately, we are interested in how young people feel enabled to be active agents in their care and identify solutions they feel will help rather than harm them.

We will:

- collaborate with young people, their families, clinicians and academics across philosophy, ethics (the study of what is right and wrong), psychology and neuroscience (the study of the brain) to investigate agency, social identity and justice in youth mental health
- analyse verbal and non-verbal communication in mental healthcare encounters involving young people to examine how epistemic justice (being entitled to know one's own experiences) and agency is fostered or thwarted in these encounters
- test novel interview methods with young people to identify their preferences on how best to interview them about their experience of agency, social identity and justice
- develop a new study idea to investigate the effect on the developing brain of high and low agency in social interaction.

MR/T046848/1: The mental health and wellbeing of youth in care and care-leavers: Development of a national collaborative research agenda

Led by: Professor John Devaney, School of Social and Political Science, University of Edinburgh

CO-Is:
Professor Gavin Davidson, School of Social Science, Education and Social Work, Queen's University Belfast
Dr Rachel Hiller, Department of Psychology, University of Bath
Dr Joanna Martin, School of Medicine, Cardiff University
Professor Anita Thapar, School of Medicine, Cardiff University

Collaborative organisations:
Association of Child Protection Professionals, Barnardo's, Children 1st, Children in Northern Ireland, The Health & Social Care Board for Northern Ireland, NSPCC, The National Youth Advocacy Service, Northern Ireland Commissioner for Children and Young People, Safeguarding Board for Northern Ireland, Who Cares Scotland, ADHD Foundation & Allied Neurodevelopmental Services, CORAM

Project summary:
At present it is estimated that over 75,000 children and young people are currently in state care in the UK, the majority of whom have poorer mental health than their peers due to the events and circumstances leading up to their admission to care, and some of the experiences they have while in care. Our project seeks to address the deficit in our knowledge about how we understand the mental health needs and trajectories of young people who are looked after, and how we can respond in ways which are likely to be helpful. We are seeking to bring together through this project researchers, individuals who work with this group of young people in schools
and care settings, policy makers and, most importantly, individuals with lived experience of being looked after by the state. Our overall aim is to develop a national research agenda for this population of young people for the next decade.
Our objectives are to:
- work with care experienced young people to explore how mental health is defined, and the key issues we should be exploring;
- explore how we conceptualise the mental health needs of young people who are looked after, and how we could and should respond in ways which are likely to be effective and acceptable to young people;
- discuss the range of research approaches which are likely to be useful and realistic in undertaking high quality research in this area;
- agreeing amongst experts from research, practice and with lived experience, the ways that research studies can measure and assess the mental health of young people and the impact of new ways of working; and,
- to develop an approach to training and supporting non-mental health practitioners to better identify and support young people and their mental health.

MR/T046430/1: Towards early identification of adolescent mental health problems

Led by: Dr. Anna Moore, Psychiatry, University of Cambridge

Co-Is:
Dr Rudolf Cardinal, Psychiatry, University of Cambridge
Professor Tamsin Ford, Child and Adolescent Psychiatry, University of Cambridge
Professor John Clarkson, Engineering, University of Cambridge
Dr Gos Micklem, University of Cambridge, Genetics
Mr Tony Evans, Transformation, Huntingdonshire District Council
Professor Peter Fonagy, Division of PALS, University College London
Professor Peter Jones, Psychiatry, University of Cambridge
Professor David Henry Rowitch, Paediatrics, University of Cambridge
Professor Anna Vignoles, Faculty of Education, University of Cambridge
Professor Carol Brayne, Public Health and Primary Care, University of Cambridge
Dr Robbie Duschinsky, Public Health and Primary Care, University of Cambridge

Collaborative organisations:
Cambridgeshire & Peterborough NHS Trust, Cambridgeshire & Peterborough County Council, Cambridge University Hospitals Trust, Public Health England East of England, Huntingdonshire District Council, Anna Freud National Centre for Children & Families, Eastern Academic Health Science Network (AHSN), East of England (EoE) Applied Research Collaboration (ARC), Cambridge & Peterborough Sustainability Transformation Partnership (STP)

Project summary:
Mental health problems have significant negative effects on young people's lives. Intervening early can improve the lives of young people struggling with mental health problems. However, identifying problems is challenging, as the early symptoms often emerge as other problems, such as not doing so well at school, struggling with friendships, or behaving differently.

Early evidence suggests there may be some signs that can predict if and when a young person is developing problems. However, this information is held in a wide range of different places, such as the health records held by hospitals and GPs, or in information held by social workers and schools. We will explore if it is possible to bring this information together in a safe and secure way to create a de-identified, 'live' data resource that links information from these sources. We will then see if it is possible to develop digital tools that can identify the early signs of problems and understand how tools like this might be integrated into health systems.

During the year we will:
- Create a collaboration of experts from academia, clinical services, education, social care, computer science, data security, and policy makers, who will work together to try to solve some of the challenges of building a digital early intervention tool.
- Explore with young people, their families and carers, and those who have experienced mental health problems in childhood whether they think a tool like this would be a good idea, how they feel about data being used in this way, and how they think a tool like this should be used.
- Determine how best to achieve the high levels of data security required, so that only those people involved in a person's care can see identifiable information. We want to ensure that we establish how to build a pilot dataset of de-identified information and test if it's possible to create a 'real-time' resource with which to build our early identification tool.

- Explore how a digital tool might be integrated into NHS, schools, and social care settings to enable earlier identification of young sufferers of mental health problems, and the implications it might have for current practice in children's mental health services.

MR/T046546/1: **Nothing about us without us: civic activism as a mental health intervention**

Led by: Professor Angie Hart, Professor of Child, Family & Community Health / Director, Centre of Resilience for Social Justice / Cupp Academic Director, University of Brighton

Co-Is:
Dr Suna Eryigit Madzwamuse, School of Health Sciences, University of Brighton
Dr Karina Rodriguez Echavarria, School of Computing, Engineering & Maths
Dr Amanda Taylor-Beswick, School of Social Sci, Edu & Social Work, Queen's University of Belfast
Youth co-researchers from Blackpool, Cornwall & Newham

Collaborative organisations:
Blackpool Council, Boingboing Social Enterprise, Cornwall Council, National Lottery Community Fund HeadStart partnership, Newham Council, Resilience Revolution community collaborators in Blackpool, Revolution Researchers (Youth Co-researcher Group), Neighbourhood Watch

Summary:
We are a team of co-researchers from different generations, professions and backgrounds including young people facing many disadvantages, adult community researchers, academics and mental health professionals. Through this research we will co-create knowledge regarding the role of innovative 'glocal' civic activism as a mechanism to strengthen young people's mental health. Our hunch is that creating belonging through civic activism could help us have positive identities because research tells us that a strong and positive identity offers us direction in life and indicates that we matter in the world. We know civic activism needs researching because in Blackpool we have already had success experimenting with a new way of supporting young people's mental health. This is based on an approach to resilience that is about 'Beating the Odds and Changing the Odds' which we call Boingboing Resilience. This approach helps us build our own resilience as well as challenge the disadvantages that increase risks in the first place. This project would help us build on that work and share it with other YP and their adult supporters.

To achieve our research aim our activities will include:

- doing a 'literature review'. This means exploring what academics worldwide have already published on building young people's positive identities when they are facing many disadvantages.
- organising and running a big meeting (called a 'networking summit') and inviting lots of people interested in our work and who have influence.
- running 3 events using safe and ethical technologies, co-designed and co-led by young people from Blackpool, Brighton, Newham and Cornwall. We aim to find out about young people connecting with their communities' history; young people getting actively involved with their present communities, to get involved in making positive changes; and young people actively contributing to their communities' future through civic activism.
- surveying young people in Blackpool, Newham and Cornwall to test survey questions already available about young people's identity, civic activism and mental health.