



**Research
& Innovation**

Part of St Andrew's Healthcare

Research & Innovation 2021/22



Transforming lives through research

Chair's introduction

As Chair of the Research Committee, I am delighted to present the research and innovation annual report 2021/22. This has been an exciting year, with significant changes for research and innovation across the charity. Our strategy to develop a world-class research capability to benefit our patients has been refreshed, with increased focus on the further development of strong external partnerships, nurturing cultural change and encouraging sustainability. I hope you enjoy the selection of high quality projects detailed in this report, which typify the excellent work being done.



Stanton Newman
Research Committee Chair

Our mission

We will grow and manage a carefully selected portfolio of research and innovation projects to improve the overall care we provide and deliver maximum benefit to patients, with a particular focus on enabling them to recover, and return to the community as quickly as possible to lead fulfilling and rewarding lives.



Jess Lievesley
Chief Executive (interim)

I welcome the opportunity to pay tribute to the work that takes place within the charity to progress research and innovation. We know that the best outcomes and opportunities for those in our care come from a culture of continuous quality improvements and a restlessness and desire to seek to learn.

We know historically that mental health research has not received the funding or prominence that it deserves and our strategy is aimed to redress the balance. I was therefore delighted when our board of trustees placed research and innovation as one of seven strategic priorities for the charity and I know that we will go from strength to strength, as our expertise and collaborations in this area continue to develop and expand.

Inequalities

Inequality can be defined as unfair and unjust differences between people that has a negative effect on their lives, including their mental health. Previous studies have suggested that inequalities may play a role in the development of mental ill-health and the aim of the study at St Andrew's, funded by NHS England, was to identify some of the key inequalities experienced by our patients.

Our study involved talking with patients, staff and peer support workers, and then analysing what they said in detail. While individual factors were identified, one of the key elements that emerged was that patients often experience multiple inequalities across a variety of areas. This is referred to as intersectionality and needs to be considered when exploring inequality. The factors underlying inequality can be grouped into three main themes: a disrupted living environment, a disturbed childhood and a lack of emotional support. It is important for both staff and patients to be able to recognise and challenge inequality, as well as understand how these factors may contribute to the development of mental ill health. The findings from the study informed the content of an interactive workshop, which was developed by the REDS Recovery College at St Andrew's. Delivery of and learning from the session is most beneficial when attended by both staff and patients, as it provides an excellent opportunity for a joint exploration that can lead to meaningful culture change. As part of the promotion of study outputs, the session was run especially for staff in the East Midlands region (see below) and is also available for delivery at individual organisations (**contact: redsrecoverycollege@standrew.co.uk**).



Kristina Brenisin

Research Assistant working on the inequalities project

"It was very rewarding being part of the inequality project. We were dealing with issues that are very important to address in regards to mental wellbeing, so it was amazing to see so many people, including patients and staff, come together to raise awareness of inequalities."

In March 2022, delegates from the East Midlands Collaborative were invited to attend an interactive workshop entitled, **Inequality, Mental Health & Recovery**, developed and hosted by the REDS Recovery College.

"The aim of the workshop was to encourage attendees explore and discuss how disadvantage can lead to mental ill health and to identify ways to tackle inequalities within mental health services. We also wanted to showcase our workshop, which was specifically designed for co-attendance by staff and patients from mental healthcare settings.

"This was a hugely successful course and all delegates took away a better understanding of the depth and breadth of health inequalities inherent in society and care settings."

Donna Walker

REDS Recovery College and Peer Support Manager



Clinical Research Secondments

The Research and Innovation Team have been joined by Consultant Clinical Psychologists, Dr Inga Stewart and Dr Charlie Staniforth, who are on a two-year Clinical Research Fellow secondment. These secondments have allowed both of them to dedicate two days a week to research, while continuing with their 'day job' for the rest of the time.

Research secondments 'inject new interest' into work, St Andrew's Healthcare (stah.org)



Dr Charlie Staniforth

Consultant Clinical Psychologist and Clinical Research Fellow

"Being able to break up my week and combine my day job with my research work has completely rejuvenated me. The secondment is a powerful tool as it is providing me with tacit knowledge and experience, which will also benefit my practical work."

Charlie is working on a tool to identify preventative and treatment interventions to reduce poor sexual health outcomes and vulnerability to sexual exploitation for adolescent inpatients.



Dr Inga Stewart

Consultant Clinical Psychologist and Clinical Research Fellow

"Being able to combine research with a job I already loved doing has injected new interest into what I do. The research secondments were open to all clinicians and applying was the best thing I could have done."

Inga is working on a toolkit, with the aim of helping care staff become better at involving people with dementia in writing their own care plans. Co-production has become an important part of people's care, with government guidelines also recommending that people are involved in their own care planning; however, there is little guidance available on how to do this well. Inga hopes her toolkit will help give a voice to people living with dementia and their carers who can act as partners in care.



Data and Technology



Data, data everywhere... but there are challenges to making use of it for research. The "rich" health data held by the NHS and the likes of St Andrew's can be used to powerful effect, both at individual and population level. However, with great power comes great responsibility; only information that is relevant should be extracted and patient confidentiality must be protected. The former requires an understanding of the medical records and the latter requires the removal of identifiable information. The processing required for a large number of health records can be so time-consuming as to render them unusable.

We believe the answer lies in technology and we have joined a consortium of mental healthcare organisations

who are working with Akrivia Health to refine and implement the case record interactive search platform. Their intelligent system is able to learn what is relevant from human annotators, and can mask personally identifiable information during the extraction process, resulting in a deidentified and structured dataset. There are additional advantages to this technology-based, consortium approach: high quality, research-ready datasets are produced at speed, to a greater degree of accuracy than could otherwise be achieved; datasets can be combined from across trusts to increase statistical power; human input is minimised: a bonus for busy clinical teams and helping to maintain patient confidentiality.

Transparency is vital and a communications plan is intended before the system goes live. There is still a way to go, but with a fair headwind, we think 2022 is looking good.

**AKRIVIA
HEALTH**

Personalised medicine

Personalised medicine refers to treatment that is customised for individual patients. We all have a different genetic make-up and this suggests that people with the same condition may require different therapies. St Andrew's Healthcare is teaming up with two external organisations to investigate how we can use emerging technology to be more precise in the medication that is prescribed for our patients.

Clozapine is a drug commonly used to treat psychotic disorders. It can be very effective; however, patients may experience severe side effects. In addition, the rate at which the drug is broken down by the body will affect the dose that is required. David Taylor, Professor of Psychopharmacology at King's College London and Director of Pharmacy and Pathology at the Maudsley Hospital, has developed a genetic test. The Clozapine Test (Psychiatric Genetic Testing Limited), will predict potential side effects of the drug, as well as indicating the dosage needed for the drug to be effective. We plan to assess this test in a St Andrew's setting and if successful, it would be another instrument in the clinician's toolkit to give our patients the best care possible, with potential to speed up the recovery journey, leading to their earlier discharge.



We are also working with a Cardiff University spin-off company, MeOmics, who aim to convert blood cells to nerve cells, which can then be used to assess which drugs will be most appropriate for individual patients, all within a lab setting and without using "real" patients. "What's more, the cells could be used to screen new compounds, which will speed up and reduce the costs of progressing new drugs from discovery to treatment. Although this project is at an early stage, it demonstrates that we are developing partnerships with collaborators that put St Andrew's at the cutting edge of research for the benefit of our patients. Not only will this contribute to improved outcomes now, but it will ensure that state of the art therapies are available for our patients as soon as they become available."



Physical Health

1214
staff members have
completed the Physical
Activity e-learning
since Feb 2020

We continue to build on our five-year relationship with Loughborough University, with physical health remaining a core strand of our research strategy. This year, we are working with three students on collaborative projects, two of which are well underway and third in development.

Justine Anthony has recently completed a PhD within CAMHS. This body of work comprised a series of studies exploring the physical activity and physical health of adolescents in secure care. In one of these studies, Justine interviewed staff and patients about their experiences of physical activity provision and promotion within secure psychiatric care. In another study, Justine conducted secondary data analysis on anonymised patient data to explore longitudinal weight change for adolescents in CAMHS.

Findings revealed that young people who are admitted to secure care have a greater tendency to gain weight. There are many factors which contribute to this including diet, physical activity and the side effects of medication.

Since completing her PhD, Justine has started a post-doctoral research project within the adult services at St Andrew's. This project aims to build on previous work from a Loughborough collaboration that produced an e-learning module for staff on the importance of physical activity. This project will use co-creation methodologies to produce a 'Physical Activity Toolkit', which will include practical resources to support staff in physical activity promotion, and patients in physical activity engagement.

We will undertake an evaluation of the toolkit later in the year.

[CAMHS collaboration continues despite Covid chaos, St Andrew's Healthcare \(stah.org\)](#)



Dr Justine Anthony
Research Associate,
Loughborough University

Poppy Gardiner's project is focussed on improving the quality of sleep for the patients at St Andrew's, as poor sleep has been identified as a significant clinical issue in secure psychiatric care. Within this population, sleep disorders can relate to delayed recovery, reduced engagement with treatment and daytime activities, and poorer overall wellbeing. Despite the known health benefits of physical activity, individuals with severe mental illness have been identified as one of the most inactive populations. Research also states that engaging in physical activity across the day can help individuals to sleep better at night. This project aims to increase daytime physical activity by way of an intervention that is encouraging patients to take part in small bouts of activity across the day, at a self-selected intensity. By engaging in more physical activity and being less sedentary, the intention is that patients will stay awake during the day and that daytime napping will be reduced. The anticipated outcome of this combination is that night time sleep quality and overall wellbeing will be improved.

The intervention is underway across our Northampton site and has been well received by patients and staff in both our men's and women's adult services.



Poppy Gardiner
Doctoral Researcher,
Loughborough University

External Collaborations



UNIVERSITY OF
BIRMINGHAM



Why are we stuck in hospital?

Understanding service user, family and staff perspectives when transforming care for people with learning disabilities and/or autism

By **Professor Jon Glasby**

Chief Investigator for this NIHR-funded study

In recent years, there has been growing concern about the number of people with learning disabilities and/or autism living in long-stay hospitals, and concerted policy efforts to help people lead more ordinary lives in the community. Despite this, there has been little research on why people with learning disabilities are delayed in hospital, and virtually no research that has tried to ask people with learning disabilities, their families and front-line staff about what they see as the main barriers and what would help more people to leave hospital from their point of view.

Against this background, the University of Birmingham and Changing Our Lives are conducting a national study – some of which involves research with St Andrew's – to better

understand the experiences of people with learning disabilities who have been stuck in long-stay hospital settings, their families and front-line staff. This knowledge will then be used to create practice guides and training materials to support new ways of working and to help other people in future.

We are grateful to St Andrew's for supporting the research and helping us to try to develop answers to these important policy and practice questions, especially in such a challenging external environment.



Section 17 Leave: Supporting unpaid carers

By **Dr Nicola Moran**

Research Fellow, University of York

'Section 17' (s.17) leave allows patients detained in hospital under the Mental Health Act 1983 (MHA) to take increasing amounts of therapeutic leave; such leave is a vital part of a patient's rehabilitation and mental health recovery. Unpaid carers report being infrequently involved in decisions about leave for people they care for who are detained under the MHA in England and there is little evidence about effective ways to support carers during inpatient stays.

During phase one of this study, completed across a number of sites including St Andrew's, we gathered qualitative data from carers and practitioners through interviews and workshops, in order to explore experiences of s.17 leave and identify how it could be improved. We then

developed a 10-item Standard, which sets out how practitioners can better support carers around s.17 leave.

During phase two, due to complete in 2023, the Standard will be introduced in selected 'intervention wards' in a small number of sites across England and outcomes for carers will be compared with those in 'control wards' using qualitative and quantitative methods. We will interview practitioners from intervention wards to discuss implementation; and we will also consider the cost implications for a wider rollout. If the Standard improves outcomes for carers, it will go to full trial. We anticipate that improved outcomes for carers will also benefit patients and practitioners.

Partnership development and building engagement

The last year has created a strong foundation for the future growth of research and innovation at St Andrew's Healthcare. As we move forward, a major emphasis will be placed on developing innovative partnerships with academia, NHS Trusts, industry and other third sector organisations. The charity already has a large number of collaborations with a diverse range of organisations, however within the refreshed strategy, we are keen to encourage and expand our portfolio, through the refreshed strategy, to drive improved outcomes for our patients. We believe friendly and open collaboration, true co-production based on respect and entrepreneurship can help us to invent the future. We would like to hear from anyone interested in helping us to achieve our goals.



Photographed by **Richard Durham**,
Groundsman at St Andrew's
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