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| Institution: University of East Anglia | | |
| Unit of Assessment: 4 - Psychology, Psychiatry and Neuroscience | | |
| Title of case study: Developing psychological interventions to improve the management and treatment of psychosis | | |
| Period when the underpinning research was undertaken: 2000 - 2020 | | |
| Details of staff conducting the underpinning research from the submitting unit: | | |
| Name(s): Prof David Fowler Dr Joanne Hodgekins | Role(s) (e.g. job title): Professor of Clinical Psychology Clinical Associate Professor in Clinical Psychology | Period(s) employed by submitting HEI: 1995 to October 2013 2003 to 2009, 2012 - to present |
| Period when the claimed impact occurred: 2013 - 2020 | | |
| Is this case study continued from a case study submitted in 2014? No | | |
| <p>1. Summary of the impact</p> <p>Schizophrenia, a type of psychosis, affects 20,000,000 people worldwide. Historically, pharmaceutical interventions were considered the only viable treatment for psychosis. For more than 20 years, UEA research has been instrumental in changing this view and has played a central role in the development of Cognitive Behavioural Therapy for Psychosis (CBTp). The impact of this research was highlighted as an Impact Case Study for UOA4 in REF2014; the present case study reflects subsequent impact from existing and new research. UEA research has been key in informing a global shift in emphasis towards timely intervention via work evaluating the importance and effectiveness of Early Intervention for Psychosis (EIP) services. More recently, the UEA team and collaborators have developed Social Recovery Therapy (SRT) with a focus on improving functional outcomes. Together, this body of work has had a major impact on worldwide mental health service delivery. This is reflected in statistics on service delivery, updates to national and international mental health policy guidelines, service development guidance, and training for mental health workers.</p> | | |
| <p>2. Underpinning research</p> <p>Schizophrenia is ranked among the most disabling of all psychiatric conditions. Many people will recover following treatment, although some experience persistent difficulties. Fowler and Hodgekins at UEA have led a sustained programme of research pioneering the use and evaluation of psychological interventions in the treatment and management of psychosis.</p> <p>Cognitive Behavioural Therapy for Psychosis (CBTp)</p> <p>Building on an important therapy manual (Fowler et al., 1995), Output 1 provides an influential cognitive model of psychosis. This highly-cited Output (>1000 citations, Scopus), identified a role for psychological interventions in ameliorating the symptoms of psychosis and improving quality of life. The cognitive model of psychosis formed the basis for a series of multi-site randomised control trials (RCTs) of CBTp, with Fowler as PI for the East Anglia Region.</p> <p>The London-East Anglia group administered one of the largest trials to date, studying the effectiveness of CBTp and family intervention in reducing relapse rates for people experiencing acute episodes of psychosis (Output 2). This trial showed no overall effect on relapse rates but did reveal two important positive roles for CBTp. First, data showed a positive effect of CBTp on depression and distress outcomes. Second, the study suggested that CBTp might be most appropriate for those with distressing treatment-resistant symptoms. Subsequently, Fowler was a PI on a large RCT examining cognitive therapy for young people at high risk of developing psychosis (Output 3). This was the first trial of its kind, and the results showed that cognitive therapy reduced the severity of psychotic symptoms, supporting the extended reach of psychological interventions to an earlier stage of the illness trajectory.</p> <p>Early Intervention for Psychosis (EIP) Services</p> <p>Following work on CBTp, there has been an international focus on early intervention for</p> | | |

psychosis services. The initial phase of psychosis is a critical treatment period; if psychotic symptoms are addressed early, the potential for future disability is significantly reduced. UEA has led and collaborated on pioneering research into Early Intervention in Psychosis (EIP), both developing services and refining clinical practice for younger, first-episode patients. This research has focused on reducing symptom-related distress and on improving functional outcomes. A UEA-led study was instrumental in informing EIP implementation guidance, specifically highlighting the benefits of a specialist multi-disciplinary approach (Output 4). The study compared outcomes over a ten-year period and found that more individuals made a full or partial recovery at 2 years when early intervention was delivered by a specialist standalone EIP service (52%), compared to those receiving EIP support within the context of a general Community Mental Health Team (24%). Those accessing specialised EIP services also had fewer inpatient admissions, demonstrating cost-effectiveness. Due to increases in employment and reductions in admissions, the costing statement which accompanies the UK NICE guideline for psychosis suggests that EIP services could save the NHS GBP44,000,000 per year.

Social Recovery Therapy (SRT) for Psychosis

Despite the efficacy of EIP services on symptomatic outcomes, over 60% of young people with first episode psychosis still experience significant functional impairments after the first year of EIP service provision (Hodgekins et al., 2015, *British Journal of Psychiatry*). To address this, the UEA team developed and tested Social Recovery Therapy (SRT) – an intervention targeted at improving functional outcomes following an episode of psychosis. A recent large scale RCT (the SUPEREDEN3 trial; Output 5) demonstrated the efficacy of SRT in improving functional outcomes in first episode psychosis. Critically, this study showed that SRT improved engagement in structured activity by an average of 8 hours per week. A therapy manual and an adherence scale have been developed to support implementation of the SRT intervention (Fowler et al., 2019, *Psychosis*; Lowen et al., 2020, *Behavioural & Cognitive Psychotherapy*), along with a new measure – the Time Use Survey (Output 6) – to assess functional outcomes. These resources are available to the international research and clinical community via a specially developed SRT website.

3. References to the research

(**Outputs**; UEA authors highlighted in **bold**)

1. Garety PA, Kuipers E, **Fowler D**, et al., (2001). A cognitive model of the positive symptoms of psychosis. *Psychological Medicine*, 31, 189-195. DOI: 10.1017/S0033291701003312
Theoretical model outlining psychological understanding of psychosis and potential targets for treatment. CBT for psychosis is based on this theoretical model.
2. Garety PA, **Fowler D**, et al., (2008). Cognitive behavioural therapy and family intervention for the prevention of relapse and reduction of symptoms in psychosis: randomised control trial. *British Journal of Psychiatry*, 192(6), 1-12. DOI: 10.1192/bjp.bp.107.043570
RCT demonstrating that CBTp reduced depression at 24 months and improved delusional distress and social functioning in people with carers but did not reduce relapse rates.
3. Morrison AP, French P, Stewart SL, Birchwood M, **Fowler D***, et al., (2012). Early detection and intervention evaluation for people at risk of psychosis: multisite randomised controlled trial. *British Medical Journal*, 344: e2233 DOI: 10.1136/bmj.e2233
RCT demonstrating that cognitive therapy reduced the severity of psychotic symptoms in young people who are at risk of developing psychosis.
*Author contribution note: Fowler made significant contributions to the conduct of data collection, analysis and interpretation, and preparing the manuscript for publication.
4. **Fowler D**, Hodgekins J., et al., (2009). Can targeted early intervention improve functional recovery in psychosis? A historical control evaluation of the effectiveness of different models of early intervention service provision in Norfolk 1998-2007. *Early Intervention in Psychiatry*, 3(4), 282-288. DOI: 10.1111/j.1751-7893.2009.00146.x
Found that focused early intervention has a positive impact on functional / social recovery.

5. **Fowler D, Hodgekins J**, et al., (2018). Social recovery therapy in combination with early intervention services for enhancement of social recovery in patients with first-episode psychosis (SUPEREDEN3): a single-blind, randomised controlled trial. *The Lancet Psychiatry*, 5(1), 41-50. DOI: 10.1016/S2215-0366(17)30476-5
Outcome study from large-scale RCT of social recovery therapy highlighting that SRT improved engagement in structured activity by an average of 8 hours per week.
6. **Hodgekins J**, et al. (2015). Comparing time use in individuals at different stages of psychosis and a non-clinical comparison group *Schizophrenia Research*, 161, 188–193. DOI: 10.1016/j.schres.2014.12.011
Describes the impact of psychosis on social recovery and introduces a tool to assess social recovery – the Time Use Survey.

Examples of Grant Support

Project: Psychological Prevention for Relapse in Psychosis (PRP)

Co-PI: Fowler, D.

Funder: The Wellcome Trust. **Dates:** 2001-2007. **Grant value:** GBP252,500

Project: Early Detection and Intervention Evaluation (EDIE-II)

PI: Fowler, D.

Funder: Medical Research Council. **Dates:** 2006–2010. **Grant value:** GBP97,665.

Project: Sustaining Positive Engagement and Recovery (SUPEREDEN) - Improving social recovery in young people with emerging severe social disability.

Co-I: Hodgekins, J. & Fowler, D.

Funder: NIHR Programme Grant **Dates:** 2010-2015. **Grant value:** GBP2,047,092 (GBP293,679 to UEA).

4. Details of the impact

Psychosis can have a devastating effect on quality of life, including reduced engagement with work, education, and social activity. Recent estimates suggest only 5-15% of people with schizophrenia are employed, compared with over 70% of the general population. This lost productivity costs the English economy GBP3,400,000,000 per year (Andrew et al., 2012). UEA research demonstrates the importance of implementing psychological interventions to ameliorate the personal and societal challenges posed by psychosis.

Psychological treatments for Psychosis

UEA research has informed the evidence base underpinning clinical guidelines for the prevention and treatment of psychosis in the UK (since 2014) and the US (since 2019). These guidelines, in general use in the UK and US, recommend that everyone diagnosed with psychosis be offered psychological therapies.

The influential cognitive model of psychosis (Output 1) is cited in UK NICE guideline for the 'Treatment and Management of Psychosis and Schizophrenia in Adults' (**Source 1**, p. 26). The guideline refers to the cognitive model of psychosis when emphasising the importance of considering psychological factors in the development, and therefore treatment, of psychosis. NICE guidelines recommend that CBTp and family intervention should be offered to all adults with psychosis. Research conducted at UEA is cited in the evidence review underpinning this guideline. Output 2 is included in the evidence review for CBT for psychosis and in the evidence review for family intervention (**Source 1**, p. 225). UEA research is also cited in UK clinical guidelines for treating psychosis in children and young people, in support of the recommendation that individual CBT should be offered to young people with transient or attenuated psychotic symptoms (Output 3, **Source 2**, p. 249).

Offering CBTp and family intervention to all adults with psychosis are Quality Statements in the NICE 'Psychosis and Schizophrenia in Adults Quality Standard' (2015) document. The document outlines the potential positive impact of psychological interventions in improving outcomes for service users. Quality standards set out priority areas for quality improvement in health and social care. Critically, these standards are having a widespread impact on practice. Data from the National Clinical Audit for Psychosis highlight that 49% of people ($N > 5000$) with a first

episode of psychosis received CBTp in 2019/20 (**Source 3**).

The recently published American Psychiatric Association guidelines (**Source 4**) cites the NICE guidelines (**Sources 1 & 2**) and directly cites UEA research in the evidence review for the recommendation that individuals with schizophrenia who have ongoing contact with family should receive family interventions (Output 2, **Source 4**, p. 262). Output 2 is also cited on the American Psychiatric Association training slides (**Source 5**); these slides are used in the training of psychiatric professionals in the US and in Continuing Professional Development for psychiatric and clinical professionals.

Early Intervention for Psychosis Services

UK guidelines have been developed to specifically emphasise the importance of timely implementation of NICE recommended treatments, including access to specialised multi-disciplinary Early Intervention in Psychosis (EIP) services. In 2016, NHS England released the Access and Waiting Time Standard for Early Intervention in Psychosis Services (**Source 6**). Implementation of the standard is required in all EIP services in England. This was the first Access and Waiting Time Standard for mental health and requires that people with first episode psychosis are able to access specialist EIP services within two weeks of referral and be offered NICE recommended packages of care, including CBTp. These important developments in guidelines for clinical practice and patient care were greatly influenced by research carried out at UEA. Output 4 is cited in the Access and Waiting Time Standard (**Source 6**, p. 20) as evidence of the clinical and cost-effectiveness of a 'standalone' model of EIP service provision. Data from the National Clinical Audit for Psychosis highlight that 10,560 people with a first episode of psychosis accessed EIP services across 155 teams in England in 2019/20 (**Source 3**). As a result of using EIP services, people are less likely to be admitted into hospital and more likely to live independently and return to employment, with an estimated potential annual cost saving of GBP63,300,000 to the NHS and wider society.

Social Recovery Therapy (SRT): Impact on training and outcome measurement

Findings from the SUPEREDEN3 trial (Output 5) have generated significant interest in SRT as an intervention to improve functional outcomes for people with psychosis. An overview of the findings have been published as an NIHR Signal (2018) by the NIHR Dissemination Centre (**Source 7**). NIHR Signals aim to fast-track the implementation of new research evidence by providing healthcare decision-makers with outcomes of important health research. The Signal states: ***"Social Recovery Therapy not only increases structured activity levels but also appears to keep people in contact with services in the first critical nine months. It could be incorporated into early intervention services for people with persistent social withdrawal."*** The trial also featured in a NIHR Dissemination Centre Themed Review on support for people with severe mental illness (Output 5 cited in **Source 8**, pp. 28, 40-41, 46). Data from the NIHR Dissemination Centre shows that the Themed Review was accessed/downloaded 6,102 times between March 2018 and November 2020.

There has been significant interest in SRT from clinicians working with people with psychosis nationally and internationally. SRT is being used in Ireland at NUI Galway. Until recently there was no specific service provision for young people with first episode psychosis in Ireland. However, in 2019, a new Model of Care for Early Intervention for Psychosis services was launched by the Irish Health Services Executive and three pilot EIP services were set up in 2020: ***"When searching the literature in early 2019 we found that Social Recovery Therapy (SRT) - developed by Prof David Fowler, Dr Jo Hodgekins and colleagues – showed the most positive effect on functional recovery outcomes compared to other interventions. [SRT] has greatly informed our thinking around interventions to improve functional outcomes for people with psychosis and we have chosen to include this approach in our programme of research and service development."*** (**Source 9**).

Training in the use of SRT has been delivered to clinicians undertaking the PGCert in Enhanced CBT for Psychosis and Bipolar Disorder at the Oxford Cognitive Therapy Centre. The training received excellent feedback with clinicians. In conjunction with the Time Use Survey tool to assess social recovery outcomes (Output 6), SRT resources have been developed for clinicians (including a therapy manual and training videos) and are available via a Social Recovery Therapy website which was launched in January 2020 (**Source 10**). Illustrative analytics data

from December 2020 showed that monthly visits to the website had increased by 300% since Summer 2020, with over 100 visits per month from across the world, including UK, USA, Hong Kong, China and Ireland. In addition, the website is cited in the resources area of the American Institute for Cognitive Therapy.

Summary

Enhancing clinical practice to improve the lives of service users and their families has been at the heart of the UEA research programme. The research outlined here has emphasised the importance of psychological factors in the development of psychosis and has increased the availability and variety of treatment options for service users and their families. Moreover, broadening the focus of psychological approaches to include social and functional aspects of recovery has influenced a holistic range of outcomes. UEA research has changed clinical practice by informing both national and international guidelines and contributing to a focus on Early Intervention for Psychosis services. This has improved the lives of individuals and reduced the societal burden of this devastating illness.

5. Sources to corroborate the impact

1. **National Institute for Health and Care Excellence (NICE) (2014) CG178 Psychosis and schizophrenia in adults: prevention and management.**
Output 1 cited in full guidance in relation to use of psychological models of psychosis and Output 2 cited in full guideline as evidence of efficacy of CBTp.
2. **National Institute for Health and Care Excellence (NICE) (2013/2016) CG155 Psychosis and schizophrenia in children and young people: recognition and management. Evidence Update 2015.**
Underpinning research (Output 3) cited in evidence update summary for the treatment of psychotic symptoms in young people at risk of psychosis.
3. **Royal College of Psychiatrists National Clinical Audit of Psychosis (NCAP) 2019/20.**
Highlights delivery of CBT for Psychosis for individuals with a first episode of psychosis
4. **The American Psychiatric Association Practice Guideline for the Treatment of Patients with Schizophrenia (Third edition, September 2020).**
Underpinning research (Output 2) in review of evidence for recommendation people with schizophrenia should be offered family interventions.
5. **American Psychiatric Association Clinical Practice Guidance for the Treatment of Patients with Schizophrenia: Training slides (September 2020).**
Output 2 cited (on slide 118). These slides provide the key training for all psychiatric professional trainees and in CPD for psychiatric professionals.
6. **NICE and NHS England (2016). Implementing the Early Intervention in Psychosis Access and Waiting Time Standard: Guidance.**
Underpinning research (Output 4) cited as evidence of cost effectiveness of 'Stand-alone' model of service.
7. **NIHR Signal (February 2018) Additional Therapy helps social recovery from first episode of psychosis.**
Provides an overview of Output 5 in publication designed to fast-track implementation of recent findings.
8. **NIHR Dissemination Centre Themed Review – Forward Thinking: NIHR research on support for people with severe mental illness.**
Overview of underpinning research (Output 5) in publication designed to summarise research findings to service users and clinicians.
9. **Testimonial from NUI Galway, 1st February 2021**
10. **Social Recovery Therapy website including links to YouTube Social Recovery Therapy Channel.**
Digital source downloaded from YouTube (9th February 2021) and held on file at UEA