

<b>Institution:</b> The University of Manchester		
<b>Unit of Assessment:</b> 4 (Psychology, Psychiatry and Neuroscience)		
<b>Title of case study:</b> World's first effective treatment to prevent psychosis has been implemented as standard treatment in NHS mental health services across England		
<b>Period when the underpinning research was undertaken:</b> 2002 - 2020		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b>	<b>Role(s) (e.g. job title):</b>	<b>Period(s) employed by submitting HEI:</b>
Tony Morrison	Professor of Clinical Psychology	2000 - present
Paul French	Honorary Senior Lecturer Honorary Research Fellow	2009 - 2015 2006 - 2009
Richard Bentall	Professor of Clinical Psychology	2000 - 2007
Linda Davies	Professor of Health Economics Director of Health Economics Research	2008 - present 2000 - 2008
Graham Dunn	Professor of Biomedical Statistics	2000 - 2019
Shon Lewis	Clinical Professor of Adult Psychiatry	2000 - present
Sophie Parker	Honorary Senior Lecturer Honorary Research Fellow	2016 - 2019 2006 - 2011
Rory Byrne	Honorary Research Fellow	2014 - present
<b>Period when the claimed impact occurred:</b> 2014 - 2020		
<b>Is this case study continued from a case study submitted in 2014?</b> N		
<b>1. Summary of the impact</b>		
<p>Cognitive Behavioural Therapy (CBT) for people at high risk of developing first episode psychosis was established through research conducted at the University of Manchester (UoM). As a result, it is now possible to deliver an effective treatment to prevent psychosis, which is important since psychosis can cause significant personal, familial, societal and financial costs. This treatment approach was subsequently adopted in the UK in national treatment guidance for children and young people (NICE, 2013), as well as adults (NICE, 2014), and across the UK's network of 153 Early Intervention for Psychosis services (2016). Consequently, approximately 1,200 cases of psychosis will have been prevented in England alone. It is also being utilised internationally, and delivered at specialist sites across Europe, North America, Asia and Australia.</p>		
<b>2. Underpinning research</b>		
<p>Approximately one in 100 people worldwide have experienced a psychotic disorder such as schizophrenia. During 2004/5 in the UK, direct costs to the NHS were estimated at GBP2,000,000,000, with indirect costs to society approaching GBP4,700,000,000. No evidence-based treatments for prevention of psychosis were available prior to the trials conducted at UoM, and no other evidence-based treatments have been developed since.</p> <p>The aim of this research was to develop a psychological approach to the prevention of psychosis. Morrison and colleagues conducted a world-first clinical trial, which demonstrated that CBT alone seemed to prevent or delay the development of first episode psychosis, compared to regular monitoring [1] and this benefit was maintained at three-year follow-up [2].</p>		

Working with a sample of people at high risk of psychosis, this trial's delivery of the CBT model developed at UoM [3] marked a new and significant step-change in clinical understanding and treatment of emerging psychosis. This subsequently led to the development of the world's largest clinical trial of a psychological intervention to prevent psychosis, based at UoM [4]. Two additional clinical trials conducted in Canada and the Netherlands replicated this research, using the same treatment protocol.

Morrison and colleagues' foundational work in the development of these trials, along with three others conducted internationally, informed the development of NICE guidelines for treatment of people at risk of developing psychosis, with their meta-analysis suggesting that CBT could halve the risk of developing psychosis [5]. These guidelines have subsequently recommended CBT as the first-line treatment to prevent or delay the onset of psychosis (NICE, Guidelines CG155 and CG178, 2013, 2016). Without the clinical trials conducted by this UoM research group, and the adoption of their treatment manual by other international researchers and clinical services, these NICE recommendations would not have been made.

### 3. References to the research

1. **Morrison, A.P., French, P.,** Walford, L., **Lewis, S.W.,** Green, J.M., Kilcommons, A., **Parker, S. & Bentall, R.P.** Cognitive Therapy for the Prevention of Psychosis in People at Ultra-High Risk: Randomised Controlled Trial. *British Journal of Psychiatry* 2004; Oct,185 (4):291-297. <http://dx.doi.org/10.1192/bjp.185.4.291>.
2. **Morrison, A.P., French, P., Parker, S.,** Roberts, M., Stevens, H., **Bentall, R.P., Lewis, S.** Three-Year Follow-up of a Randomized Controlled Trial of Cognitive Therapy for the Prevention of Psychosis in People at Ultrahigh Risk. *Schizophrenia Bulletin* 2007; May, 33:3:682–687. <http://dx.doi.org/10.1093/schbul/sbl042>.
3. **French, P., Morrison, A.P.** (2004). Early Detection and Cognitive Therapy for People at High Risk of Developing Psychosis: A Treatment Approach. <http://dx.doi.org/10.1002/9780470713259>.
4. **Morrison, A.P., French, P.,** Stewart, S.L.K., Birchwood, M., Fowler, D., Gumley, A.I., Jones, P.B., Bentall, R.P., **Lewis, S.W.,** Murray, G.K., Patterson, P., Brunet, K., Conroy, J., **Parker, S.,** Reilly, T., Byrne, R., **Davies, L.M., Dunn, G.** Early detection and intervention evaluation for people at risk of psychosis: Multisite randomised controlled trial. *BMJ* 2012;344: e2233. <http://dx.doi.org/10.1136/bmj.e2233>.
5. Stafford, M.R., Jackson, H., Mayo-Wilson, E., **Morrison, A.P.,** & Kendall, T. Early interventions to prevent psychosis: systematic review and meta-analysis. *BMJ* 2013; Jan 18;346:f185. <https://doi.org/10.1136/bmj.f185>.

Grants funding the research:

1. **Morrison, A.P. & Bentall, R.P.** 'Early Detection and Intervention for Psychosis in Primary Care' funded by NHS-E. October 1999-October 2002. GBP149,000.
2. **Morrison, A.P.,** Birchwood, M., Gumley, A.I., French, P., Lewis, S., Bentall, R.P., Fowler, D., Jones, P.B. & Dunn, G. 'Early detection and prevention of psychosis' funded by the Medical Research Council GBP1,100,000 and the Department of Health GBP700,000. August 2006-February 2010.

### 4. Details of the impact

#### Pathways to impact

Following publication in high profile journals [1, 2], Morrison's research on psychotherapy to prevent psychosis for people with 'at risk mental states' (ARMS) was presented internationally at leading conferences and disseminated nationally through presentation and teaching to established networks of academic and clinical specialists involved in treatment for psychosis. With the development of the first NICE guideline for the treatment of

psychosis and schizophrenia in children and young people, Morrison's trial evidence was instrumental in informing national and international guidance for the treatment of people at high risk of psychosis (ARMS). This guidance was subsequently implemented in the UK as a standard across relevant specialist NHS services. In the UK especially, training for the majority of staff delivering this NICE-recommended treatment is also directly informed by teaching resources that are based on the Morrison model, including the treatment manual [3].

### **Reach and significance of the impact**

#### **Impact on policy and clinical practice**

Evidence from Morrison's clinical trials, and others using their treatment protocol, led to the NICE guideline recommendation for CBT for ARMS. As a direct consequence of this recommendation, the Access and Waiting Time Standard [A] for Early Intervention in Psychosis services (EIP) was introduced, which includes a requirement that at least 50 per cent of people identified as being at high risk of psychosis are required to be offered, within two weeks of referral, NICE concordant CBT for ARMS to reduce their risk of psychosis. This level of dissemination has undoubtedly led to a major improvement in the clinical practice offered to this patient group:

*"The work that's been done by Tony (Morrison) and colleagues around using CBT for prevention of psychosis is possibly some of the most important work that's been done in the area of psychosis and schizophrenia since the introduction of antipsychotics in the 1950's."* National Clinical Director for Mental Health [B].

*"The research work from Morrison et al. at the University of Manchester, particularly the EDIE (Early detection and intervention evaluation) trials of CBT intervention (1) for young people at high risk of psychosis have been both influential and impactful, influencing thinking and practice in the UK in relation to early detection of and appropriate interventions with people identified as at high risk of making a transition to psychosis."* National Clinical Advisor to the National Clinical Audit of Psychosis [C].

#### **Impact on young people at risk of psychosis**

The primary beneficiaries of this approach are young people with ARMS (approximately 20,000 new cases each year in the UK), along with their families. A conservative estimate of the direct impact of this work can be seen in recent NHS audit data [D], [E]. Across the UK during the year 2018/19 CBT was available to 1,243 at risk individuals, and a further 1,170 individuals with suspected psychosis. Extrapolating this data to the full implementation period suggests that up to 6,000 individuals with ARMS, and up to 6,000 with suspected psychosis, could have been helped directly in the UK alone. Given the evidence for the efficacy of this treatment (i.e. reducing risk of transition to psychosis by 50%), and the relative rate of transition among at risk cases (20%), approximately 1,200 cases of psychosis will have been prevented.

#### **Impact on education and training**

Treatment manuals and associated training packages have been delivered nationally and internationally. The primary NICE-concordant treatment for individuals identified as at risk of psychosis is CBT [F] and the majority of this formal teaching of CBT is the Morrison model:

*"The manual that they've written is the primary manual in terms of what to do psychologically with people with ARMS. One of the things we've been doing nationally is trying to ensure that people with ARMS get access to CBT, and it's the work of Morrison and French that people look at in terms of what they should be doing."* National Advisor for Severe Mental Illness for the Improving Access to Psychological Therapies programme [G].

#### **International reach**

This treatment model has also been utilised by clinicians internationally, with multiple trial replications, clinical services established, and local treatment manual translations across specialist sites in Europe, North America, and Asia:

*“The studies that Tony (Morrison) and his team have been leading, the first studies really showing that there must be room to consider the fact that for some people psychological interventions are enough, and may be preferred, have had a big influence on how people think about these type of problems, especially new generations of clinicians. It’s not just an approach that will have a short-term impact but is very much a reform of how things are done, and the impact is international.”* President of the International Early Intervention in Mental Health Association (IEPA) [H].

Use of CBT to prevent psychosis in people at high risk is also recommended in the European Psychiatry Association’s guidelines [I] and the Australian Clinical Guidelines for Early Psychosis (p.7, section 3.1.2), which state that *“the individual and their relatives should be assessed and mental state and safety monitored regularly (every 2 - 4 weeks) in a context of ongoing support. CBT is the preferred intervention”* [J].

## 5. Sources to corroborate the impact

- A. The access and waiting standard (<https://www.england.nhs.uk/mentalhealth/wp-content/uploads/sites/29/2016/04/eip-guidance.pdf>, April 2016, page 44, table 2: *Intervention: Individual CBT with or without family intervention Outcome: To prevent transition to psychosis*). NHS England guidance now requires access to this preventative model of CBT as the primary recommended treatment for children and young people at high risk for psychosis.
- B. Statement from the National Clinical Director for Mental Health from 2020, on the historical clinical significance of the advances made by Morrison and colleagues in the prevention of psychosis.
- C. Statement from the National Clinical Advisor to the National Clinical Audit of Psychosis from 2020, describing the conceptual and clinical impact of Morrison and colleagues’ work in improving mental health practice around the prevention and treatment of psychosis in the UK.
- D. Royal College of Psychiatrists (2019) National Clinical Audit of Psychosis – National Report for the Early Intervention in Psychosis Spotlight Audit 2018/2019. London: Healthcare Quality Improvement Partnership. Available from: [https://www.rcpsych.ac.uk/docs/default-source/improving-care/ccqi/national-clinical-audits/ncap-library/ncap-eip-national-report--final-online-20190807.pdf?sfvrsn=166d7fe7\\_2](https://www.rcpsych.ac.uk/docs/default-source/improving-care/ccqi/national-clinical-audits/ncap-library/ncap-eip-national-report--final-online-20190807.pdf?sfvrsn=166d7fe7_2) These published audit data demonstrate the increasing delivery of NICE-recommended CBT to prevent psychosis across NHS Early Intervention services in England following the establishment of the 2016 Access and Waiting Time Standard.
- E. Unpublished data collected for the 2019 National Clinical Audit of Psychosis demonstrate location-specific delivery of CBT to prevent psychosis through Early Intervention services in England.
- F. National Institute for Health and Care Excellence. Psychosis and Schizophrenia in Children and Young People: Recognition and Management (Clinical Guideline CG155). NICE, 2013. Available from: <https://www.nice.org.uk/Guidance/CG155>. Publication of these treatment guidelines established for the first time a national recommendation for the NHS to deliver Morrison’s preventative model of CBT for people at risk of psychosis.
- G. Statement from the National Advisor for Severe Mental Illness for the Improving Access to Psychological Therapies programme from 2020, highlighting the primary position of the Morrison and French treatment approach across the UK in training to improve access to recommended treatment to help people at risk of developing psychosis.
- H. Statement from the President of IEPA Early Intervention in Mental Health Association from 2020, noting the international and long-term significance and reach of

Morrison's research in advancing understanding of the onset, and potential prevention, of psychosis.

- I. European Psychiatric Association (EPA) guidance paper: EPA guidance on the early intervention in clinical high risk states of psychoses. *European Psychiatry* 2015; 30(3):388-404. Schmidt, S.J., Schultze-Lutter, F., Schimmelmann, B.G., N P Maric, N.P., Salokangas, R.K.R., Riecher-Rössler, A., van der Gaag, M., Meneghelli, A., Nordentoft, M., Marshall, M., Morrison, A., Raballo, A., Klosterkötter, J., Ruhrmann, S. <http://dx.doi.org/10.1016/j.eurpsy.2015.01.013>. Peer-reviewed paper reporting that the use of CBT to prevent psychosis in people at high risk is recommended in the EPA's guidelines.
- J. The Australian Clinical Guidelines for Early Psychosis - Second Edition, June 2016, contain the recommendation of CBT as the preferred intervention for people at ultra high risk of psychosis. <https://www.orygen.org.au/Campus/Expert-Network/Resources/Free/Clinical-Practice/Australian-Clinical-Guidelines-for-Early-Psychosis/Australian-Clinical-Guidelines-for-Early-Psychosis.aspx?ext>.