

| |
|---|
| Institution: University of East Anglia |
| Unit of Assessment: 4 Psychology, Psychiatry and Neuroscience |
| Title of case study: Psychological interventions in the management and prevention of psychosis. |
| <p>1. Summary of the impact Psychosis devastates quality of life. Since 1995, work led by Professor David Fowler at The University of East Anglia (UEA) has made significant contributions to a series of UK and international trials which show that Cognitive Behaviour Therapy (CBT) is effective in reducing distress, emotional dysfunction and social disability in patients with chronic schizophrenia, and as part of early intervention services for first episode and at-risk patients. This work has had a major impact on mental health services as reflected in national and international mental health policy guidance, service development guidance, policy implementation guidance and training programmes for mental health workers.</p> <p>2. Underpinning research According to the World Health Organization schizophrenia, a form of psychosis, affects 24 million people worldwide. Schizophrenia and other forms of psychosis rank as the third most disabling condition (above paraplegia and blindness). Many people will recover following treatment, although some may have persisting difficulties, or experience future episodes throughout their lives.</p> <p>Since the 1980s, Fowler at UEA (in post until October, 2013) led a sustained programme of research pioneering the use and evaluation of CBT for the treatment and management of psychosis. The linear progression of the research programme during the census period has emphasised early intervention, detecting and evaluating first episode psychosis, and identifying characteristics of those at risk of developing psychosis.</p> <p>Preliminary work established proof-of-concept for the use of CBT for psychosis (CBTp) and led to the publication of a highly influential therapy manual (<i>output 1</i>). Treatment strategies are described to engage patients and address key areas, such as social disability. The manual directs CBTp practitioners to develop a collaborative approach with the patient, thereby increasing his or her potential for self-regulation. Evidence of efficacy for this approach is also discussed.</p> <p>The manual was the basis for a seminal randomised controlled trial (RCT) of CBTp undertaken by the London-East Anglia group, resulting in a trio of highly referenced publications involving: i) treatment effects, ii) predictors of outcome and iii) follow-up data (e.g. <i>output 2</i>). This was a multi-site RCT and Fowler was Principal Investigator (PI) for the East Anglia region. The London-East Anglia group then administered the largest trial to date studying the effectiveness of CBTp and family intervention in reducing relapse rates (<i>output 3</i>). Data from this trial was analysed further by Fowler and Hodgekins at UEA to model the role of negative cognition in the maintenance of paranoia. The findings provided additional support for the use of CBTp in targeting negative thought processes (<i>output 4</i>) and have subsequently influenced healthcare guidance.</p> <p>Since the original research by the London-East Anglia group established efficacy for CBTp, the international community has collectively focussed on early intervention services. The initial phase of psychosis is a critical treatment period; if the 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 (<i>output 5</i>) and refining CBT practice for younger, first-episode patients. Differences in outcome over a 10 year period were examined comparing an EIP service administered by a Community Mental Health Team (CMHT) and those under the care of a comprehensive EIP service (<i>output 5</i>). The findings have since been adopted in EIP service frameworks.</p> <p>More recently interest has focussed even earlier in the development of severe mental illness (SMI) for those individuals at risk of developing psychosis (<i>output 6</i>). This is believed to be the first ever trial of its kind, the results of which have featured in healthcare guidance for children and young adults.</p> |

3. References to the research (names in **bold** denote UEA staff)

Output 1 is an Authored Book (Therapy Manual):

1) **Fowler, D.**, Garety, P. A., & Kuipers, E. (1995). *Cognitive Behaviour Therapy for Psychosis: Theory and Practice* (194 pages). John Wiley and Sons: Chichester. [ISBN: 978-0-471-95618-1]. 305 citations on Scopus, 106 citations on Scopus between 2008-13.

Outputs 2-6 are Peer Reviewed Journal Articles:

2) Kuipers, E., **Fowler, D.***, Garety, P., Chisholm, D., Freeman, D., Dunn, G., Bebbington, P., & Hadley, C. (1998). London–East Anglia randomised controlled trial of cognitive-behavioural therapy for psychosis. III: Follow-up and economic evaluation at 18 months. *British Journal of Psychiatry*, 173, 61–68.

3) Garety, P. A., **Fowler, D.***, Freeman, D., Bebbington, P., Dunn, G., & Kuipers, E. (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.

4) **Fowler, D.**, **Hodgekins, J.**, Garety, P., Freeman, D., Kuipers, E., Dunn, G., Smith, B., & Bebbington, P. E. (2012) Negative cognition, depressed mood, and paranoia: a longitudinal pathway analysis using structural equation modeling. *Schizophrenia Bulletin*, 38(5), 1063-73.

5) **Fowler, D.**, **Hodgekins, J.**, Howells, L., Millward, M., Ivins, A., Taylor, G., Hackmann, C., Hill, K., Bishop, N., & Macmillan, I. (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.

6) Morrison, A. P., Stewart, S. L., French, P., Bentall, R. P., Birchwood, M., Byrne, R., Davies, L. M., **Fowler, D.***, Gumley, A. I., Jones, P. B., Lewis, S. W., Murray, G. K., Patterson, P., & Dunn, G. (2011). Early detection and intervention evaluation for people at high-risk of psychosis-2 (EDIE-2): Trial rationale, design and baseline characteristics. *Early Intervention in Psychiatry*, 5(1), 24-32.

**Note that Fowler made a substantial contribution to the organisation of the conduct of the study, to the carrying out of the study, to analysis and interpretation of study data, and the author helped draft the output and critiqued the output for important intellectual content.*

Key Research Funding Underpinning the Research and Associated Impact:

2005-2009. The UK national evaluation of early intervention services: The National EDEN project. Sponsor: Department of Health. Value: £1,647,570. Co-applicant with Birchwood (lead) and Lester (Birmingham), Jones (Cambridge), Harrison and Amos (Bristol) and Marshall (Manchester).

2005-2010. Early Detection and Intervention in Psychosis (EDIE 2). Sponsor: Medical Research Council. Value: £1,800,962. Co-applicant with Dunn (lead), Morrison and Lewis (Manchester), Bentall (Bangor), Birchwood (Birmingham), Gumley (Glasgow) and Jones (Cambridge).

2008-2011. Cognitive mechanisms of change in persecutory delusions: experimental studies. Sponsor: Wellcome Trust. Value: £456,000. Co-applicant with Garety and Kuipers (London, Kings - lead), Freeman and Dunn (Oxford) and Bebbington (London, UCL).

4. Details of the impact

Historically, medication was considered the only viable intervention for treating patients with psychosis. The ground-breaking research carried out by UEA, in association with the London-East Anglia group, demonstrated that talking therapies and in particular, CBTp, are effective in alleviating psychotic symptoms and reducing social disability. Key pieces of research (*outputs 2, 3*) have informed the National Institute of Health and Care Excellence (NICE) guidelines, formerly known as the National Institute of Health and Clinical Excellence, on the treatment and management of schizophrenia, 2010 [source 1]. Additionally, the methodology described in the therapy manual (*output 1*) was adopted in subsequent national and international trials of CBTp

Impact case study (REF3b)

(e.g. UK, Italy and Australia) that provided the evidence base for the NICE guidelines [source 1]. UEA CBTp research has continued to influence mental health policy-making strategies both nationally [sources 4-7] and internationally [source 3]. The US guidelines for schizophrenia [source 3] refer to the NICE guidelines [source 1], as a 'companion document', in which Fowler's research at UEA is integral, appearing five times directly, and five times indirectly, via the included RCTs that used the treatment manual (output 1).

The guidelines in the UK and US recommend that everyone diagnosed with psychosis be offered psychological therapies. CBTp is effective in helping people recover by reducing symptoms, reducing relapse and enabling self-management. The recent schizophrenia commission report found that 43% of service users and their families rated CBTp as one of the most valuable and well-tolerated interventions [source 5, p.33]. Moreover, the economic analysis, referenced in source 1, showed that commissioning CBTp is likely to be a cost-saving intervention overall. Any additional costs in providing the intervention are offset by savings, as a result of fewer hospital admissions. The overall net saving per person with schizophrenia was valued to be between £557-£2,277 (for a mean duration of hospitalisation of 110.6 days) [source 1, p.272].

Since 2003 EIP has been a major foundation of government policy in mental health. Source 7 states that EIP services, "achieve higher levels of engagement and improved outcomes compared to Community Mental Health Teams" (p.5). The success of EIP compared to standard Community Mental Health Teams (CMHT) is succinctly summarised in a speech by Professor Appleby (Mental Health Tsar, 2009). EIP is, "the jewel in the crown of the NHS mental health reform because: service users like it; people get better; and it saves money" [source 4, p.7].

Work carried out by researchers at UEA in collaboration with the Norfolk and Waveney Mental Health Foundation Trust has made an important contribution to defining the strategies of psychological intervention in EIP (output 5). The findings indicated that only 24% of individuals made a full or partial functional recovery at two years under the CMHT model compared to 52% of the cases who were under the care of a comprehensive EIP service. A further benefit of the specialised EIP service was noted in a large reduction in inpatient admissions. The findings highlighted that treatment in the early phase of the illness requires a multi-disciplinary approach, otherwise effectiveness is significantly reduced. The results of this trial have informed guidelines formulated by the Initiative to Reduce the Impact of Schizophrenia (IRIS) [sources 4, 7], instigated by the Rethink mental health charity. In addition, the findings from output 5 have influenced NHS briefings on commissioning EIP services [source 6]. Within this report the results of the UEA trial are referred to as, "compelling evidence for the benefit of the service model" (p.6). This in turn has contributed to the multi-disciplinary model of bio-psycho-social care in EIP services that is recommended internationally, e.g. Australia (EPPIC), Canada (PEPP), Norway (TIPS).

The most recent work by Fowler and Hodgekins at UEA has focussed on youth mental health. UEA research has promoted early detection for psychosis (output 6), targeting intervention at social disability, as well as highlighting the influences of negative cognition in maintaining psychotic mental states (output 4). These two pieces of research have informed the most recent NICE guidelines for psychosis in young people, 2013 [source 2]. The Clinical Audit Tool that accompanies this guideline [source 10] stipulates that CBTp must follow a treatment manual with evidence of efficacy, with no exceptions. Output 1 is an example of a treatment manual with evidence of efficacy from clinical trials.

Similarly, the therapy manual (output 1) is regarded as a key resource by the International Society for Psychological and Societal Approaches to Psychosis [source 9], which currently has over 1300 members. Moreover, the manual is currently used by therapists and for training purposes within mental health clinics [source 8]. It is a major source for describing the competencies required for therapists to deliver high quality, evidence based practice for treating people with psychosis.

5. Sources to corroborate the impact

1) National Institute for Health and Clinical Excellence (2010). Schizophrenia: the NICE guideline on core interventions in the treatment and management of schizophrenia in adults in primary and secondary care. <http://www.nice.org.uk/nicemedia/live/11786/43607/43607.pdf> [CG82].

UEA research is described on p.258 (output 3) and p.267 (output 2). Three additional references to

Impact case study (REF3b)

Prof Fowler's research, not listed in the research outputs, are found on p.22; 23; 28.

- 2) National Institute for Health and Clinical Excellence (2013). Psychosis and schizophrenia in children and young people: recognition and management.
<http://www.nice.org.uk/nicemedia/live/14021/62392/62392.pdf>[CG155].

Outputs 1 and 4 are referenced on p.31. Further UEA research (output 6) contributed to the evidence comparing CBT versus supportive counselling (see Tables 20-23).

- 3) U.S. Department of Health (2009). Schizophrenia. Core interventions in the treatment and management of schizophrenia in adults in primary and secondary care.
<http://www.guideline.gov/content.aspx?id=14313> NGC-7181.

The NICE guidelines CG81 [source 1] are referred to as a companion document to this.

- 4) Early Intervention in Psychosis: IRIS Guidelines Update (2012). <http://www.iris-initiative.org.uk/silo/files/iris-guidelines-update--september-2012.pdf>.

IRIS has underpinned critical reforms in EIP services. It is a recognised body by the World Health Organization. The guidelines cite the findings from output 5 (p.12-13, 17) that suggest a multi-disciplinary team is of paramount importance to the effectiveness of EIP services.

- 5) The Abandoned Illness: A report by the Schizophrenia Commission (2012).
http://www.rethink.org/media/514093/TSC_main_report_14_nov.pdf.

The Commission ran six formal evidence gathering sessions involving over 80 experts and 2,500 people responded to the online survey. "I feel that the current EIP service is the most effective thing available to people experiencing psychosis," (Family Member, p.14).

- 6) NHS Confederation: Mental Health Network Report (2011). <http://www.iris-initiative.org.uk/silo/files/nhs-confederation-briefing-on-early-intervention-in-psychosis.pdf>.

This briefing presents the evidence base to inform commissioners of EIP services. Output 5 is cited on p.6.

- 7) IRIS report (2010). Head to Head: Specialist EIP services versus a CMHT model for providing early intervention in psychosis. <http://www.iris-initiative.org.uk/silo/files/head-to-head--eip-services-versus-cmhts--guidance-for-commissioners-and-service-planners.pdf>. Information for service planners & commissioners.

In reference to output 5, cited on p.6, the report states that "The evidence base for specialised EIP services is overwhelming" and, "EIP services are superior to CMHT on every outcome including cost."

- 8) South London and Maudsley NHS Foundation Trust is an IAPT demonstration site.
<http://www.iapt.nhs.uk/smi-/>.

Output 1 is in active use at this clinic and features on the required reading list for professionals in training. Email communication with Dr Louise Johns, Consultant Clinical Psychologist at the clinic is used here as evidence, indicating its current use and its recommendation to their therapists.

- 9) International Society for Psychological and Societal Approaches to Psychosis.
<http://www.isps.org/index.php/learning-resources/recommended-books>.

ISPS is an international organisation promoting psychotherapy for psychosis. Output 1 is listed as recommended reading on their resources page. As of July 2013, this organisation had 1350 members worldwide and 295 in the UK.

- 10) CG155 Psychosis and schizophrenia in children and young people: psychological interventions for first episode psychosis clinical tool (2013).
<http://guidance.nice.org.uk/CG155/ClinicalAudit/PsychologicalInterventions/doc/English>.

This document accompanies NICE CG155 [source 2]. See point 12, p.7 regarding the need for CBTp to follow a manual with evidence of efficacy from clinical trials (e.g. output 1).