

<b>Institution: University of Oxford</b>
<b>Unit of Assessment: 4</b>
<b>Title of case study:</b>  <p style="text-align: center;"><b>Eating Disorders: The Development and Dissemination of Effective Treatments</b></p>
<b>1. Summary of the impact</b>  <p>Eating disorders (anorexia nervosa, bulimia nervosa and related conditions) are common, often chronic and disabling, and sometimes fatal. Christopher Fairburn and colleagues have engaged in long-term research into the nature and treatment of eating disorders. The impacts are: (1) developing the standard measurement tools for eating disorders; (2) devising the leading and most effective evidence-based therapy for bulimia nervosa ('CBT-BN'); (3) showing that a modified form of the treatment is effective for all eating disorders ('CBT-E'); (4) developing an effective and popular self-help version. These treatments allow, for the first time, a significant chance of complete and sustained recovery from an eating disorder. The treatments are recommended by NICE and international guidelines, and are being disseminated worldwide.</p>
<b>2. Underpinning research</b>  <p>Until the 1970s, eating disorders were equated with anorexia nervosa. Following sporadic reports of an "ominous variant" of anorexia nervosa, now known as bulimia nervosa, Fairburn was the first to show that bulimia nervosa is a common and significant psychiatric disorder (e.g. Fairburn and Cooper, <i>BMJ</i> 1982). This triggered his continuing Oxford research programmes into the nature and treatment of the condition, which was at the time considered 'intractable'. Since 1993 Fairburn has been funded, both personally and for his research, by the Wellcome Trust, at the Oxford Centre for Research on Eating Disorders, and he has been an Honorary Consultant Psychiatrist.</p> <p><b>The first effective treatment for bulimia nervosa: CBT-BN</b>        Fairburn's research began by developing a theory concerning the psychological processes that caused the disorder to persist, and on this basis evolved a specific type of psychological treatment (cognitive behaviour therapy for bulimia nervosa, 'CBT-BN'). In a seminal randomised controlled trial (RCT) based in Oxford and published in 1993, Fairburn and colleagues compared CBT-BN with alternative psychological treatments (Fairburn et al, 1993). They found that CBT-BN produced a full and lasting response (enduring for at least three years) in almost half of cases, and that its effects were achieved through the mechanisms specified by his theory. Interest in these findings led American researchers, with Fairburn, to conduct a two-centre trial to replicate the study. The result was an almost exact replication (Agras et al, 2000). These findings, together with results from some smaller studies, led to NICE (2004) recommending CBT-BN.</p> <p><b>Developing CBT-BN for use as self-help therapy</b>        Fairburn and his colleagues subsequently developed two variants of CBT-BN. The first reflected the fact that many people with eating disorders either do not present for treatment, or the latter is unavailable. Fairburn therefore developed a simplified version, designed to be delivered in non-specialist settings ("guided self-help"). Its effectiveness and acceptability has been validated in many studies, and it is recommended by NICE as the first step in the treatment of many eating disorders.</p> <p><b>Expanding effective treatment to other eating disorders: CBT-E</b>        The second important development of CBT-BN was an "enhanced" version ('CBT-E') designed as a treatment for all types of eating disorder, not just bulimia nervosa. Based upon a new and overarching cognitive theory (Fairburn et al, 2003), this "trans-diagnostic" treatment has attracted great interest. The first CBT-E RCT focused on all types of eating disorder except anorexia nervosa. Almost 80% of patients completed treatment, two-thirds of whom made a full response,</p>

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despite an average duration of illness of 8 years (Fairburn et al, 2009). Two subsequent studies of CBT-E focused specifically on anorexia nervosa, a notoriously treatment-resistant condition. They involved patients from Oxford, Leicester and Verona. Two-thirds of the patients completed CBT-E (despite the fact that 70% met American criteria for hospitalisation, a sign of their severity) and their response rate was as high, and enduring, as that obtained in the other eating disorders (Fairburn et al, 2013). Thus, CBT-E is a single treatment that can be used across all the eating disorders. The efficacy of CBT-E has now been independently replicated in studies in Australia (Byrne et al, *Behav Res Ther* 2011; 219-226) and Italy (Dalle Grave et al, *Behav Res Ther* 2013; 51: 9-12). There is no other eating disorder treatment with this clinical range or effectiveness.

### Developing measures to screen for and characterise eating disorders

As well as developing the leading cognitive theories and effective treatments, Fairburn and his colleagues are the originators of two widely used measures of eating disorders, the Eating Disorder Examination Questionnaire (EDE-Q, for use in large-scale population studies) and the Eating Disorder Examination (EDE, for in-depth characterisation of an individual patient). These have had a major impact, being the main instruments used to screen for, and characterise, eating disorders (e.g. Fairburn and Beglin, 1994). They have been translated into many languages.

### 3. References to the research

Fairburn CG, Jones R, Peveler RC, Hope RA, O'Connor M. Psychotherapy and bulimia nervosa: the longer-term effects of interpersonal psychotherapy, behavior therapy and cognitive behavior therapy. *Archives of General Psychiatry* 1993; 50: 419-428. PMID: 8498876.

- *A paper describing a three-arm RCT confirming the efficacy of CBT-BN, the specificity of its action, and the need to adhere to the key cognitive elements of the treatment. 275 citations.*

Fairburn CG, Beglin SJ. Assessment of eating disorder psychopathology: interview or self-report questionnaire? *International Journal of Eating Disorders* 1994; 16: 363-370. PMID: 7866415.

- *Paper describing the Eating Disorder Examination Questionnaire and its properties. 983 citations.*

Agras WS, Walsh BT, Fairburn CG, Wilson GT, Kraemer HC. A multicenter comparison of cognitive-behavioral therapy and interpersonal psychotherapy for bulimia nervosa. *Archives of General Psychiatry* 2000; 57: 459-466. PMID: 10807486.

- *Two-centre RCT based in the US, with quality control from Oxford, replicating the findings from the Oxford 1993 study. 218 citations.*

Fairburn CG, Cooper Z, Shafran R. Cognitive behaviour therapy for eating disorders: A "transdiagnostic" theory and treatment. *Behaviour Research and Therapy* 2003; 41: 509-528. PMID: 12711261.

- *Presentation of a new, broader theory concerning the mechanisms that maintain eating disorders and a trans-diagnostic treatment (CBT-E) based upon it. 516 citations.*

Fairburn CG, Cooper Z, Doll HA, O'Connor M, Bohn K, Hawker D, Wales J, Palmer RL. Trans-diagnostic cognitive behavioral therapy for patients with eating disorders: A two-site trial with 60-week follow-up. *American Journal of Psychiatry* 2009; 166: 311-319. PMID: 18710699.

- *Two-centre RCT confirming that CBT-E is trans-diagnostic in its scope. 99 citations.*

Fairburn CG, Cooper Z, Doll HA, O'Connor ME, Palmer RL, Dalle Grave R. Enhanced cognitive behaviour therapy for adults with anorexia nervosa: A UK-Italy study. *Behaviour Research and Therapy* 2013; 51: 2-8. PMID: 23084515.

- *Three-centre study of the use of CBT-E to treat anorexia nervosa. 2 citations.*

Fairburn and his group have been supported throughout by the Wellcome Trust. Key colleagues in Oxford include Zafra Cooper, Marianne O'Connor and Helen Doll, and major collaborators include Robert Palmer (Leicester). From 1993-6 Fairburn was a Wellcome Senior Lecturer; since 1996 he has held a Wellcome Trust Principal Research Fellowship which, very unusually, was renewed in

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2006. Additional support has come from four consecutive Wellcome programme grants, and two grants from the US National Institute of Mental Health. In 2011 he received a Strategic Award from the Wellcome Trust (£2.15 million), the first to be given in mental health, to develop and disseminate training for therapists across the world.

#### 4. Details of the impact

The treatments that Fairburn and colleagues developed have had a marked and international impact on clinical practice, both directly and indirectly.

- In 2004 CBT-BN was strongly endorsed in the NICE guideline on the treatment of the eating disorders. It recommended that "*All patients with bulimia nervosa should receive cognitive behaviour therapy*". This recommendation was graded "A". It was the first time NICE had ever strongly endorsed a psychological treatment (for any disorder). This guideline remains in force.
- Other countries' clinical guidelines also recommend CBT-BN (e.g. USA, Germany, Australia, Norway, Spain). A recent systematic review endorsed CBT as the first-line therapy (Hay P, *Int J Eating Disord*, 2013;46:462-469). It is too early yet for published guidelines to include CBT-E, but it has been strongly endorsed in Italian guidelines appearing in Autumn 2013, and in other guidelines currently in preparation.
- It can be estimated that 96,500 people in England and Wales alone could be cured of BN if they received a course of CBT-BN. This is based upon the evidence (partly from Fairburn's epidemiological research) that 2% of the female population between age 15 and 40 (9.65 million women; Office for National Statistics 2011 data) meet criteria for the disorder, and with a conservative complete response rate [from intention to treat analysis] of 50%. The number who could benefit across the whole UK, or from CBT-E applied to all eating disorders, would be considerably larger.
- Fairburn's guide for clinicians as to the implementation of CBT-E (Fairburn CG. *Cognitive Behavior Therapy and Eating Disorders*. Guilford Press, New York, 2008.) has sold over 9,000 copies and has been translated into German, Italian, Japanese and Spanish.
- Fairburn has given over 150 two-day workshops worldwide to train therapists in CBT-BN and CBT-E. He has also provided year-long supervision for clinical teams in Denmark, Germany, Italy, Netherlands, Norway, and the United States, in addition to many across the UK.
- In 2012 Fairburn was approached by the Health Service Executive of Ireland asking if he would train all their eating disorder services and clinicians in both CBT-E and guided self-help. A programme is now underway, training all eating disorder clinicians (60-100 therapists) across Ireland over a period of 8 months. No such dissemination of a psychological treatment has ever been attempted before. It is a prelude to Fairburn's current work, which is developing and disseminating global training of therapists via web-based approaches.
- The assessment measures developed by Fairburn and Cooper (EDE and EDE-Q) are used in the great majority of research studies of eating disorders, and have been translated into many languages (e.g. Chinese, German, Spanish, Greek, Norwegian, Fijian). The EDE is '*widely considered the gold standard for the assessment of eating disorders*' (Aardoom et al, *Eating Behaviors*, 2012: 13: 305-309).
- Fairburn's book (*Overcoming Binge Eating*, Guilford Press, New York, 1995; 2<sup>nd</sup> edition published 25 July 2013) for use in guided self-help, based upon his research, has sold over 100,000 copies despite no advertising, including 23,000 since 2008. It is primarily recommended by clinicians. It can be prescribed as part of the NHS bibliotherapy scheme launched in June 2013 (<http://www.overcoming.co.uk/single.htm?ipg=6320>). It is available in many languages.

- Reflecting the impact of his work, Fairburn was awarded the Outstanding Researcher Award from the Academy for Eating Disorders in 2004, and the Beck Prize from the Academy for Cognitive Therapy in 2011.

### 5. Sources to corroborate the impact

1. National Institute for Health and Clinical Excellence. *Eating Disorders*. CG9. NICE, London, 2004. These remain in force. <http://publications.nice.org.uk/eating-disorders-cg9>
2. American Psychiatric Association guidelines: Treatment of Patients with Eating Disorders, 3<sup>rd</sup> edition (2006): '*The evidence strongly supports the value of CBT as the most effective single intervention*' [for bulimia nervosa]: <http://psychiatryonline.org/content.aspx?bookid=28&sectionid=1671334>.
3. In the 2012 review of these guidelines, CBT was again strongly endorsed: <http://psychiatryonline.org/pdfaccess.ashx?ResourceID=5391825&PDFSource=6>
4. German guidelines (German Society of Psychosomatic Medicine and Psychotherapy, and German College for Psychosomatic Medicine: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3221424/>
5. Recent systematic review: '*CBT has retained and extended its status as first-line therapy for BN [bulimia nervosa]*.' (Hay P. A systematic review of evidence for psychological treatments in eating disorders: 2005-2012. *Int J Eating Disord* 2013; 46:462-469.)
6. Editorial highlighting the findings of the first study of CBT-E. '*The results of this trial represent a significant advance in our knowledge about the treatment of eating disorders.*' (Crow S, Peterson CB. Refining treatments for eating disorders. *Am J Psychiatry* 2009; 166: 266-7).
7. Feature in *Wellcome News*, Autumn 2011 issue: Bringing Order to Chaos. [http://www.wellcome.ac.uk/stellent/groups/corporatesite/@msh\\_publishing\\_group/documents/web\\_document/wtvm052872.pdf](http://www.wellcome.ac.uk/stellent/groups/corporatesite/@msh_publishing_group/documents/web_document/wtvm052872.pdf)
8. Academy of Cognitive Therapy Aaron T. Beck Award 2011 citation: <http://www.academyofct.org/i4a/pages/index.cfm?pageID=3305>. The award was made for "*An enduring and profound contribution to the practice of cognitive therapy*".

#### Contacts:

9. Ireland initiative: Dr Ian Daly, Clinical Strategy and Programmes Directorate, Health Service Executive, Steevens' Hospital, Steevens Lane, Dublin 8. Letter on file (October 2013) highlighting impact of the work in Ireland.
10. Terence Wilson, Rutgers University, New Jersey. Letter on file (October 2013) endorsing the importance and impact of Fairburn's research. Includes '*this work is having a decisive influence on the treatment of eating disorders worldwide.*'