

Impact case study (REF3b)

Institution: King's College London
Unit of Assessment: UoA4
Title of case study: 10: Early effective treatment of bulimic eating disorders through self-care interventions
<p>1. Summary of the impact</p> <p>Bulimic eating disorders are disabling conditions affecting approximately 5% of the population. Effective specialist treatment exists in the form of cognitive behavioural therapy (CBT), but only a minority of patients access this. Researchers at King's College London developed book-, CD-ROM- and web-based CBT self-care interventions for bulimic disorders that provide early effective treatment with outcomes comparable to costly specialist CBT. Locally, at the South London and Maudsley NHS Foundation Trust Eating Disorders Service, this has significantly reduced waiting lists. The research has had national and international impact with UK, German and US guidelines endorsing guided self-care as a first treatment step for bulimic disorders and the KCL manual and website are internationally recommended.</p>
<p>2. Underpinning research</p> <p>Bulimic eating disorders are mentally and physically disabling conditions with a population prevalence of approximately 5%, typically starting in adolescence and running a chronic course. Quality of life can be poor and burden on families high. Bulimic disorders are highly stigmatised and only between 12-20% seek professional help. While the treatment of choice is cognitive behavioural therapy (CBT), this is costly in therapist time and is not widely available. For instance, at the South London and Maudsley NHS Foundation Trust (SLaM), 20 sessions of outpatient CBT costs £3,485. Guided self-care book or web-based treatments with some therapist assistance bridge the access gap and only costs an average £985 per patient. Research regarding such treatments has been led at Institute of Psychiatry, King's College London (KCL) by Prof Ulrike Schmidt (1983-93; 1996-present, Professor of Eating Disorders) and Prof Janet Treasure (1983-present, Professor of Adult Psychiatry).</p> <p>KCL researchers develop and test a CBT-based self-care manual: In 1993, KCL researchers developed Getting Better Bit(e) By Bit(e), the first ever CBT self-care manual for bulimic disorders based on their experience treating patients. The easy to read manual combines self-care with therapist guidance focusing on increasing motivation and self-efficacy; it also includes strategies for dealing with comorbidities (1). Its effectiveness has been shown in several clinical trials. In one study, treatment via the manual significantly reduced the frequency of binge eating and weight control behaviours other than vomiting compared to a waiting list (2). In a collaborative study with Bielefeld University, Germany, 62 patients received the manual plus eight fortnightly sessions of CBT or 16 sessions of weekly CBT. There were substantial improvements in both groups for eating disorder symptoms and severity along with improvements in measures of depression, self-concept and knowledge of nutrition, weight and shape. At follow-up (between 6-24 months), 70% in the manual group and 71% in the CBT group had not binged and 61%/71% respectively had not vomited during the preceding week (3).</p> <p>While self-help treatment was advantageous, it was questioned whether some patients needed additional therapist-guided treatment. An evaluation of the effectiveness of this 'stepped-care' approach compared 16 weeks of CBT (n = 55) to 8 weeks using the self-care manual followed by, if necessary, a course of eight attenuated CBT sessions (n = 55). At treatment end nearly a third in both groups were free from all bulimic symptoms and around 40% in both groups at 18 months follow-up. Almost 30% of those in the stepped-care group improved significantly with self-care only (4). The study also demonstrated that lower pre-treatment binge frequency predicted better outcome in the stepped-care group, whereas better outcome was predicted by longer illness duration in the CBT group. KCL researchers concluded that those with more frequent bingeing may require the more intense intervention (5).</p> <p>The manual is turned into a CD-ROM and web-based programme: In collaboration with colleagues at the Gartnavel Royal Hospital in Glasgow and the University of Leeds, KCL researchers developed a CD-ROM self-help package based on Bit(e) by Bit(e). The CD-ROM includes eight modules without any added therapist input. Initial studies assigned the CD-ROM to 47 patients attending SLaM's eating disorder service. At follow-up there were significant reductions</p>

in bingeing and compensatory behaviours such as vomiting (6). However, a further study, found that the CD-ROM-based delivery done without support from a healthcare professional, was not successful in the longer term as there was no difference in bulimia behaviours from those on a waiting list (7). More recently, information from Bit(e) by Bit(e) and the CD-ROM have been turned into a web-based CBT programme – Overcoming Bulimia Online – that includes online CBT sessions, peer support via message boards and email support from a clinician. A trial investigating the use of this by 101 adolescents, demonstrated significant improvements in eating disorder symptoms from baseline to 3 and 6 months and participants were positive about the intervention (8).

3. References to the research

1. Getting Better Bit(e) By Bit(e). A Survival Kit for Sufferers of Bulimia Nervosa and Binge Eating Disorders. U Schmidt, J Treasure. 1993. Routledge. ISBN-10: 0863773222
2. Treasure J, Schmidt U, Troop N, Tiller J, Todd G, Keilen M, Dodge E. First step in managing bulimia nervosa: controlled trial of therapeutic manual. *BMJ* 1994;308(6930):686-9. Doi: <http://dx.doi.org/10.1136/bmj.308.6930.686> (59 Scopus citations)
3. Thiels C, Schmidt U, Treasure J, Garthe R, Troop N. Guided self-change for bulimia nervosa incorporating use of a self-care manual. *Am J Psychiatry* 1998;155(7):947-53. Link: <http://ajp.psychiatryonline.org/article.aspx?articleid=172911> (55 Scopus citations)
4. Treasure J, Schmidt U, Troop N, Tiller J, Todd G, Turnbull S. Sequential treatment for bulimia nervosa incorporating a self-care manual. *Br J Psychiatry* 1996;168(1):94-8. Doi: 10.1192/bjp.168.1.94 (91 Scopus citations)
5. Turnbull SJ, Schmidt U, Troop NA, Tiller J, Todd G, Treasure JL. Predictors of outcome for two treatments for bulimia nervosa: short and long-term. *Int J Eat Disord* 1997;21(1):17-22. Doi: 10.1002/(SICI)1098-108X(199701)21:1<17::AID-EAT2>3.0.CO;2-6 (34 Scopus citations)
6. Bara-Carril N, Williams CJ, Pombo-Carril MG, Reid Y, Murray K, Aubin S, Harkin PJ, Treasure J, Schmidt U. A preliminary investigation into the feasibility and efficacy of a CD-ROM-based cognitive-behavioral self-help intervention for bulimia nervosa. *Int J Eat Disord* 2004;35(4):538-48. Doi: 10.1002/eat.10267 (23 Scopus citations)
7. Schmidt U, Andiappan M, Grover M, Robinson S, Perkins S, Dugmore O, Treasure J, Landau S, Eisler I, Williams C. Randomised controlled trial of CD-ROM-based cognitive-behavioural self-care for bulimia nervosa. *Br J Psychiatry* 2008;93(6):493-500. Doi: 10.1192/bjp.bp.107.046607 (24 Scopus citations)
8. Pretorius N, Arcelus J, Beecham J, Dawson H, Doherty F, Eisler I, Schmidt U et al. Cognitive-behavioural therapy for adolescents with bulimic symptomatology: the acceptability and effectiveness of internet-based delivery. *Behav Res Ther* 2009;47(9):729-36. Doi: 10.1016/j.brat.2009.05.006 (26 Scopus citations)

Grants

- 1999. PPP-Healthcare Trust: U Schmidt, I Eisler, C Dare, J Treasure. A randomized controlled study of guided self-care versus family therapy in the treatment of adolescent bulimia nervosa (£197,000)
- 2003. Psychiatry Research Trust: U Schmidt, S Landau, C Williams, J Treasure. A Preliminary Randomised Controlled Trial of the Efficacy of a CD-ROM Based Cognitive-Behavioural Self-Help Intervention for Bulimia Nervosa (£27,000)
- 2005. MRC: U Schmidt, J Beecham, I Eisler, S Gowers, J Treasure, G Waller, C Williams. Early intervention for adolescents with bulimia nervosa: A feasibility study of a web-based CBT intervention with flexible support (£200,742)
- 2005. South London and Maudsley NHS Trust R&D Steering Group: C Munro C, U Schmidt, J Treasure. Internet-based CBT self-help treatment for students with Bulimia Nervosa (£30,716)
- 2007. NIHR PGfAR: U Schmidt, J Treasure. Programme grant (£2,000,000)
- 2008. Biomedical Research Centre: U Schmidt, J Treasure, A Tylee, P Conrod, C Williams. Internet-based Prevention of Common mental disorders in students (£175,000)

4. Details of the impact

KCL research provided an evidence base for book-, CD-ROM- and web-based self-care CBT treatments for people with bulimic disorders that have completely changed patient care from entirely expert-led to service-user led, self-directed care with therapist guidance if needed. People can now access specialist therapy in non-specialist or voluntary sector settings, or through entirely self-guided means, that can lead to complete recovery from or amelioration of their condition. As these interventions are delivered without or with only limited therapist guidance they make more efficient

use of NHS therapeutic resources, reducing waiting lists and cost and allow flexibility of access for mobile populations.

Overcoming Bulimia Online impacts NHS and other services: KCL researchers are involved in a web-based intervention for bulimic disorders called Overcoming Bulimia Online (OBO), launched by Media Innovations Ltd in 2008 (1a). This site provides a CBT self-help, life-skills training package comprised of eight training sessions using video, audio and text combined with downloadable materials. The course was developed by Dr Chris Williams from the University of Glasgow using material from the CD-ROM, Bit(e) by Bit(e) and contributions from KCL researchers. The website discusses a number of KCL-led studies that evaluated this intervention, including Bara-Carill et al. 2004, Schmidt et al. 2008 and Pretorius et al. 2009 (1b). Since 2008, **19 NHS Mental health Trusts, four Universities and three eating disorders organisations have subscribed to OBO, with around 2,000 individual and institutional licenses sold** since then. OBO is endorsed by Beat, the UK's only nationwide organisation supporting people affected by eating disorders (1c).

Feedback from OBO users include:

- *“By speaking more openly to the computer I am able to speak more openly to [a therapist] now than I could have done a few weeks ago”*
- *“I wanted to do it in such a way that I was in control and I could just do it whenever...to be online like that and to have those booklets and the CD was just the perfect package ... for the point I was at”* (1d).

The OBO intervention is used in the South London and Maudsley (SLaM) NHS Foundation Trust Eating Disorders Outpatient Unit and the SLaM care pathway specifies that OBO is available as a first step in treatment. This measure has significantly impacted waiting lists as all patients can be offered immediate treatment with email support, as opposed to having to wait for up to 6 months to see a CBT therapist. As a result, some patients that would previously have been seen by a therapist can now be treated by this measure alone (about 20%), meaning those that need a dedicated specialist have less time to wait (1e).

KCL research impacts UK eating disorder treatment guidelines: Current UK NICE guidelines recommend guided self-help for bulimic eating disorders as a first step in treatment, based largely on early trials conducted at KCL including Treasure et al. 1994, 1996 and Turnbull et al. 1997. Profs Schmidt and Treasure were both members of the NICE guideline development team. The guidelines underwent review in 2011 and were confirmed as still current (2a).

KCL research affects treatment implementation: The NICE guidelines also form the basis of NICE's 2009 'Clinical Knowledge Summary' on Eating Disorders that recommends evidence-based self-help programmes (2b). Implementation of the NICE recommendation by specialist eating disorders services was examined in a 2012 UK national survey underpinning a Royal College of Psychiatrists (RCP) Report (chaired by Prof Schmidt). This shows that currently **67% of UK specialist eating disorders services use self-care interventions in the treatment of bulimia nervosa and 58% in the treatment of binge eating disorders** (2c). All these recommendations are based on KCL research findings.

The NICE guideline is also used as evidence for the recommendation within the 2012 NHS Map of Medicine, which details best practice, that “Patients with bulimia nervosa should be encouraged to follow an evidence-based self-help programme (which) may be sufficient treatment for a subset of patients” (2d). Current Scottish eating disorder guidelines use the NICE guidelines to state that “there is good quality evidence to support the use of self-help programmes in bulimia nervosa” (2e).

KCL research impacts international eating disorder treatment guidelines: Internationally, the **2010 German Eating Disorder Guidelines** also recommend guided self-care as first step in treatment for bulimic disorders. The guidelines cite amongst their evidence base Thiels et al. 1997 and Treasure et al. 1994, 1996. Prof Schmidt was also an advisor to the guideline development group (2f). **In the US, the American Psychiatric Association in their 2011 'Practice guideline for the treatment of people with eating disorders'** cite Schmidt et al. 2008 (along with a number of other KCL studies on this work but not detailed above) to say that “a variety of self-help programs have been studied and shown to be effective for bulimia nervosa” (2g).

KCL publication - Getting Better Bit(e) by Bit(e) - impacts the public worldwide: While Profs Schmidt and Treasure's self-care bulimia book was first published in 1993 it is still recommended by many professional and self-help organisations nationally and internationally. For instance in 2013, the charity 'The Reading Agency' together with The Society of Chief Librarians rolled out the first national Reading Well: Books on Prescription scheme where a range of CBT self-help books are recommended by GPs or other health professionals and are available in all public libraries. **Getting Better Bit(e) by Bit(e) is one of only three books on bulimia on their Core List of books (3a).** The RCP, in their patient-centred information pages on eating disorders recommends the book (3b) as does Cambridgeshire and Peterborough NHS Trust (3c). Further afield, it is also recommended by **Body Whys, the Eating Disorder Association of Ireland (3d)** and **Eating Disorders Victoria, a specialist centre in Australia (3e)**. Since 2008, the manual has sold over 10,000 copies in the UK alone (3f). **German, Italian, Spanish, French, Dutch and Japanese** versions have been published and these too are recommended. For instance the German version is highlighted on the website PsychNet (3g).

5. Sources to corroborate the impact

1. Overcoming Bulimia Online

- a) <http://www.overcomingbulimiaonline.com/>
- b) Research underlying website:
<http://www.overcomingbulimiaonline.com/Portals/3/Downloads/Summary%20of%20OBO%20research.pdf>
- c) Beat recommendation: <http://www.b-eat.co.uk/get-help/about-eating-disorders/overcoming-bulimia-online/>
- d) Feedback from OBO users:
<http://www.overcomingbulimiaonline.com/Home/UserStories/tabid/117/Default.aspx>
- e) Use of OBO at SLAM:
<http://www.overcominganorexiaonline.com/Portals/2/TherapyModules/resources/Maudsley%20case%20study.pdf>

2. Eating Disorder Guidelines

- a) NICE: <http://www.nice.org.uk/nicemedia/live/10932/29220/29220.pdf>
- b) NICE Clinical Knowledge Summary on Bulimia Treatments:
<http://cks.nice.org.uk/eating-disorders#!scenariorecommendation:8>
- c) RCP Council Report CR 170: Eating disorders in the UK: service distribution, service development and training: <http://www.rcpsych.ac.uk/files/pdfversion/CR170.pdf>
- d) NHS Map of Medicine. Bulimia Nervosa: management. Published 12.11.2012 (p7-8):
http://healthguides.mapofmedicine.com/choices/pdf/eating_disorders3.pdf
- e) Scottish Eating Disorder Guidelines (p23):
<http://www.healthcareimprovementscotland.org/default.aspx?page=12439>
- f) German Eating Disorders Guidelines: http://www.awmf.org/uploads/tx_szleitlinien/051-026l_S3_Diagnostik_Therapie_Esst%C3%B6rungen.pdf
- g) American Psychiatric Association (2011). Practice guideline for the treatment of patients with eating disorders. 3rd ed. Washington (DC):
<http://psychiatryonline.org/content.aspx?bookid=28§ionid=39113853#0>

3. Getting Better Bit(e) by Bit(e)

- a) Books on Prescription:
<http://readingagency.org.uk/adults/BoP%20core%20booklist%20April%202013.pdf>
- b) RCP. Anorexia and Bulimia:
<http://www.rcpsych.ac.uk/expertadvice/problems/eatingdisorders/anorexiaandbulimia.aspx>
- c) Cambridgeshire and Peterborough NHS Trust:
<http://www.cambsadulteds.nhs.uk/default.asp?id=20>
- d) Eating Disorder Association of Ireland website: <http://www.bodywhys.ie/resources/library/>
- e) Eating Disorders Victoria:
<http://www.eatingdisorders.org.au/i-need-help/suggested-reading-for-recovery>
- f) Information from Bit(e) by Bit(e) publishers Routledge Mental Health.
- g) German recommendations: <http://essstoerungen.psychenet.de/betroffene-und-angehoerige/bulimie/mehr-zum-thema.html>