

<p><b>Institution: University of East Anglia</b></p>
<p><b>Unit of Assessment: 4 Psychology, Psychiatry and Neuroscience</b></p>
<p><b>Title of case study: Technology-mediated interventions for common mental health problems and training of health professionals.</b></p>
<p><b>1. Summary of the impact</b>          Dr Lina Gega’s research has been instrumental to the development and take-up of computerised Cognitive Behavioural Therapy (cCBT) and other technology-mediated interventions for common mental health problems in the UK and internationally. Gega’s adjunct on-line methods form a key foundation for the training of professionals to support cCBT, and the National Institute for Health and Care Excellence (NICE) guidelines now include cCBT for first line intervention for common mental health problems. These developments have resulted in a greater patient reach for cCBT internationally, with resultant decreases in waiting time for patients (with associated economic benefit) and improved outcomes.</p> <p><b>2. Underpinning research</b>          Common mental health conditions, including anxiety disorders, depression and obsessive compulsive disorders (OCD), represent a major cost to society, both in terms of significant reductions in quality of life for a relatively large proportion of the population and the associated drain on economic resources of treatment. It is estimated that, per 1000 people aged 16-74 years in England and Wales, 187 present with mixed anxiety and depression, 95 for generalized anxiety disorder, 62 for depressive episode, and 38, 13 and 38 for phobia, panic disorder and OCD respectively (Psychiatric Morbidity Survey, 2000). Health practitioner time is expensive and training of health professionals is both costly and time consuming. In an ideal world, interventions for common mental health problems should take place in a patient’s home (or similar setting), without the need for visits to clinics, thus freeing up the time of health professionals, reducing waiting lists, and improving outcomes for these patients.</p> <p>Computerised CBT provides a means of improving patient access to psychological therapies, reducing clinician time (and cost), and ultimately improving outcomes for patients. Gega at the University of East Anglia (UEA) (in post until February, 2013) pioneered two new developments of cCBT, leading to specific impacts within the REF period. She has established the conditions under which cCBT is effective and how the reach of cCBT can be broadened to the training of health professionals across a range of treatment regimes. Marks, Kavanagh and Gega (2007; <i>output 1</i>) is a complete critical review and analysis of the effectiveness of cCBT, and together with key meta-analyses (<i>outputs 2, 3</i>), shows the conditions under which cCBT is most efficacious. Further Randomised Control Trials (RCTs, e.g., <i>outputs 4, 5</i>), both completed and ongoing, show how much adjunct human support (and by whom) should be given to cCBT (the Beating the Blues programme in this case) to enhance outcome and cut staff costs. In combination, the meta-analyses and RCTs (<i>outputs 2-5</i>) show that technology-based interventions are efficacious for both the treatment of common mental health disorders and the training of health professionals.</p> <p>Gega also developed a key screening tool, the “CCBT SQ”, to establish the suitability of individuals for cCBT, and whether adjunct support is required during on-line treatment. The success of cCBT involves the recognition that patients differ in the levels of support they require for CBT, and hence the extent to which they are able to undertake cCBT with or without adjunct support, or not at all (<i>output 1</i>). The CCBT SQ (Screening Questionnaire) was developed in <i>output 1</i>, further refined in the early stages of <i>grant 1</i>, and fully documented in later grants and research protocols concurrent with impact (<i>outputs 4, 5</i>).</p> <p>The underpinning research for the impact has been funded by a series of grants awarded to Gega totaling over £2 million during the current REF period funded by the National Institute for Health Research ‘Research for Patient Benefit’ (NIHR RfPB) programme, and the Health Technology Assessment (NIHR HTA) programme. All grants were multi-site, with Gega as Principal Investigator (PI) at UEA.</p>

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

**Output 1 is an Authored Book:**

1) Marks, I. M., Cavanagh, K., & **Gega, L.** (2007). *Hands-on Help: Computer-aided Psychotherapy*. Maudsley Monographs No. 49 (196 pages). Hove: Psychology Press. [ISBN.184169679X]. 176 citations on google scholar (the book is not available on Scopus).

**Outputs 2-5 are Peer Reviewed Journal Articles:**

2) Marks, I. M., Cuijpers, P., Cavanagh, K., van Straten, A., **Gega, L.**, & Andersson, G. (2009). Meta-analysis of computer-aided psychotherapy: Problems and partial solutions. *Cognitive Behaviour Therapy*, 38(2), 83-90.

*Gega 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 helped draft the output and critiqued the output for important intellectual content.*

3) Cuijpers, P., Marks, I. M., van Straten, A., Cavanagh, K., **Gega, L.**, & Andersson, G. (2009). Computer-aided psychotherapy for anxiety disorders: A meta-analytic review. *Cognitive Behaviour Therapy*, 38(2), 66-82.

*Gega 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 helped draft the output and critiqued the output for important intellectual content.*

4) **Gega, L.**, **Swift, L.**, **Barton, G.**, Todd, G., Reeve, N., Bird, K., **Holland, R.**, **Howe, A.**, Wilson, J., & Molle, J. (2012). Computerised therapy for depression with clinician vs. assistant and brief vs. extended phone support: study protocol for a randomised controlled trial. *Trials*, 13(151), 1-11.

5) **Gega, L.**, **Smith, J.**, & **Reynolds, S.** (2013). Cognitive behaviour therapy (CBT) for depression by computer vs. therapist: Patient experiences and therapeutic processes. *Psychotherapy Research*, 23(2), 218-231.

**Key Research Funding Underpinning the Research and Associated Impact:**

**2008-2011. Support for computerised therapy for patients with depression: a factorial randomised controlled comparison of brief vs. enhanced support given by clinicians vs. assistants.** Sponsor: NIHR Research for Patient Benefit (RfPB) Programme grant. Value: £249,161. Gega was PI and Lead Applicant, with Reynolds, Howe, Holland, Barton and Swift (UEA) and Rennie (NHS Norfolk). Gega's role involved the inception and design of the trial, management of a research team of clinicians, assistants, students and lay members across three Trusts, coordination of a patient advisory group, write-up and dissemination.

**2011-2013. Obsessive Compulsive Treatment Efficacy Trial (OCTET).** Sponsor: National Institute for Health Research (NIHR) Health Technology Assessment (HTA) Programme grant. Value: £1,768,802. This was a multi-site trial with Gega as local PI and Co-Applicant, with Lovell (Lead Applicant), Bower, Bee and Roberts (Manchester), Reynolds (UEA), Gilbody and MacMillan (York), Barkham and Hardy (Sheffield), Byford (Institute of Psychiatry, King's College London) and Lidbetter (Anxiety UK). Gega's role involved overseeing recruitment and treatment in one of four main research sites, providing training and supervision of trial staff across all sites, organising service user representation for the trial and providing expert advice on the computerised self-help intervention across sites.

**4. Details of the impact**

Gega's research has played a significant role in three interconnected impacts: (1) the development of cCBT in the UK and abroad and improvement of its reach, 2) the development of on-line training and direct training for health professionals, and 3) in the development of policy for the treatment of common mental health disorders through cCBT. The first two strands of impact are direct. The third strand emerges from the first two strands.

The CCBT SQ developed by Gega (*outputs 1, 4, 5*) has been used as the screening and triage tool by FearFighter™ during the REF census period [*sources 1, 2*]. FearFighter™ is the main cCBT

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tool for the treatment for panic and phobia. It has been used by thousands of patients across the world, has been endorsed as being proven to be clinically effective as well as cost effective, and is recommended as an option for delivering CBT in all the relevant policy guidelines for a range of common mental health conditions, including the National Institute for Health and Care Excellence (the NICE Final Appraisal Determination (FAD), CG123, Common Mental Health Disorders, May, 2011; Technology Appraisal TA97, 2008; NICE guideline 90; [sources 3, 4, 6]). FearFighter™ has been taken up by over 50% of the Primary Care Trusts in the UK as a consequence of the policy recommendations and evidence base for its efficacy and efficiency. It has also been adopted in other countries as a recognised form of standard treatment. Appropriate screening and triage is critical to the correct application of the resource, and therefore the efficacy rates this method of intervention has achieved. The company that produces FearFighter™, CCBT Limited, recognises that “the significant addition of the screening tool to FearFighter™ has improved take-up rates for the program as well as contributing to clinical outcome” and that “the addition of the screen to FearFighter™ has contributed to FearFighter™ being adopted in international policy guidelines as a recommended cCBT program.” [sources 1, 2].

The CCBT SQ establishing the suitability of individuals for cCBT, together with the findings from meta-analyses and trials in Gega’s funded work at UEA, also form a key part of the provision of on-line training in the use of cCBT for health professionals. Gega has been instrumental in the provision of on-line training for clinicians to support the use of computerised packages. She was invited to produce the first and only postgraduate on-line training module in cCBT for the Royal College of Psychiatrists [source 7] in the context of Improving Access to Psychological Therapies (IAPT). This on-line module has been viewed by over 28,000 people (Google analytics; source 8) in 37 different countries across 5 continents (Europe, Asia, North America, South America, Oceania), and has been fully completed by over 600 clinicians. The module has been described as an “exemplary project in the field” [source 5], and the importance of the on-line training internationally has been recognised [source 5]. More broadly, cCBT has been adopted by IAPT as a core part of the improvement of the reach of psychological therapies for common mental health conditions [source 9].

Gega has also been involved in the effective conditions of use of cCBT for another common mental health disorder – depression. Beating the Blues is the other recommended cCBT package in the National Institute of Health and Clinical Excellence guidelines for depression and anxiety NICE [sources 4, 6]. Gega has provided part of the evidence base for its use (Outputs 1, 4, 5). Moreover, Gega is playing a key role in its roll out across the UK, introducing cCBT clinics in GP surgeries right across Suffolk and Norfolk (with the Suffolk MIND partnership) with Beating the Blues combined with onsite and/or telephone support (dependent on CCBT SQ outcomes) [source 10], building on her research base showing that adjunct support improves outcome.

The final interconnected thread in the impact of Gega’s research is through the direct training of health professionals in the use of cCBT. Gega has personally trained clinicians in the UK in the use of cCBT across four counties – Norfolk, Suffolk, Northumberland, Yorkshire – in particular focussing on the screening of potential participants for cCBT, and on the adjunct support required to reach maximum efficacy. Over 200 clinicians to date have been directly trained by Gega in the UK, and direct training by Gega has been extended to Belgium. Her online training protocols and adjunct methods have also been adopted internationally in the training regimes countries offer for those overseeing and administering cCBT [source 5].

## 5. Sources to corroborate the impact

- 1) Letter from CCBT Limited, the company that produces FearFighter™, corroborating Gega’s contribution to FearFighter™, and the reach of FearFighter™. (Dated July, 2013).

*“Dr Gega’s work has been influential in the development of FearFighter™ in several respects during the dates of relevance (2008-2013). Her body of research published at the University of East Anglia has been important as a backdrop to the acceptance of cCBT generally, and FearFighter™ specifically... [but] the most important contribution Dr Gega has made to FearFighter™ is the introduction of the screening tool for it ... The significant addition of the screening tool to FearFighter™ has improved take-up rates for the program as well as contributing to clinical outcome. Moreover, the addition of the screen...has contributed to FearFighter™ being adopted in international policy guidelines as a*

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*recommended cCBT program (e.g. NICE guidelines in the UK)."*

- 2) Letter from Professor Isaac Marks, the originator and former Medical Director of FearFighter™ corroborating Gega's contribution to cCBT in terms of the addition of the CCBT SQ to FearFighter™, the provision of on-line training, and evidence for the value of cCBT. (Dated July, 2013).

*"Dr Gega's research has yielded crucial evidence for the value of cCBT e.g. the monograph by Marks, Cavanagh & Gega (2007) was an influential and critical review of cCBT. It, and articles she has published since, specified the types of support required for cCBT programs to be of most benefit, and evaluated the suitability of cCBT for particular clinical groups" and [the] "use of the screening tool alongside FearFighter™ was important to ensure that patients were suitable for the program and offered adequate support to help them complete it."*

- 3) National Institute for Health and Clinical Excellence (2011, and on-going). CG 123, Common Mental Health Disorders. <http://www.nice.org.uk/nicemedia/live/13476/54520/54520.pdf>.

*This policy document and set of recommendations endorses FearFighter™ as an on-line treatment.*

- 4) National Institute for Health and Clinical Excellence (2008, and ongoing). Review of Technology Appraisal TA97. <http://www.nice.org.uk/nicemedia/live/11568/56395/56395.pdf>.

*This policy document and set of recommendations endorses FearFighter™ and Beating the Blues as on-line treatments, and amends earlier recommendations published in 2006 (<http://www.nice.org.uk/nicemedia/live/11568/33185/33185.pdf>).*

- 5) Letter from Professor Pim Cuijpers, Head of the Department of Clinical Psychology, Free University, Amsterdam, Vice-director of the EMGO Institute of Health and Care Research of the VU University and the VU University Medical Center, corroborating Gega's impact upon the uptake of cCBT internationally. (Dated July, 2013).

*This source confirms that Dr Gega's research has played "an important role in the development and implementation of cCBT internationally", describing the cCBT training course for the RCP as "an exemplary project in the field" and corroborating that it "has been viewed and used by many (colleagues) in the Netherlands and elsewhere". Output 1), commissioned by the Institute of Psychiatry, "has been one of the most influential in the field, including the Netherlands and other European countries."*

- 6) National Institute for Health and Clinical Excellence (2009, and ongoing). Guideline 90, Depression: The treatment and management of depression in adults. <http://www.nice.org.uk/nicemedia/pdf/cg90niceguideline.pdf>.

*This policy document and set of recommendations endorses FearFighter™ and Beating the Blues as on-line treatments.*

- 7) Online CPD Computer-Aided Cognitive Behaviour Module authored by Dr Gega and Professor Isaac Marks for the Royal College of Psychiatrists.

*The Module can be viewed at <http://www.psychiatrycpd.co.uk/learningmodules/computer-aidedcognitivebehav.aspx>.*

- 8) Email from Royal College of Psychiatrists corroborating the numbers of people accessing the CPD module [source 7]. (Dated July, 2013).

- 9) Improving Access to Psychological Therapies Service Recommendations (2007, and ongoing). <http://www.iapt.nhs.uk/silo/files/iapt-outline-service-specification.pdf>.

- 10) Email from Consultant Psychologist/Clinical Lead for Norfolk and Suffolk Wellbeing Services, corroborating Dr Gega's role in training on the implementation of computerised CBT in the Norfolk and Suffolk region. (Dated September, 2013).