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| Institution: University of Oxford |
| Unit of Assessment: 4 |
| <p>Title of case study:</p> <p style="text-align: center;">Creating an Effective Psychological Therapy for Post-Traumatic Stress Disorder (PTSD) and Showing that Another Commonly Given Treatment is Ineffective</p> |
| <p>1. Summary of the impact</p> <p>Research by Anke Ehlers' group at Oxford University has had major impacts on the treatment and outcome of post-traumatic stress disorder (PTSD). The group developed and validated a psychological model of the key factors that lead to PTSD. A novel form of cognitive therapy (CT) that specifically targets these psychological processes was then developed. Randomised controlled trials showed that CT is highly acceptable and highly effective in recent-onset and chronic PTSD, in adults and children. It is one of the recommended first-line interventions in the NICE PTSD guideline. It has been made widely available in the NHS through <i>Improving Access to Psychological Therapies (IAPT)</i>, and is being disseminated in other countries. Separate research by Ehlers showed that a previously leading treatment, debriefing, was ineffective, leading to it <i>not</i> being recommended by NICE.</p> |
| <p>2. Underpinning research</p> <p>PTSD is a disabling condition that may develop after traumatic events such as disaster, interpersonal violence, severe accidents or war zone experiences. The 2007 Adult Psychiatric Morbidity Survey suggests that 2-3% of UK adults suffer from PTSD (1-1.5 million). PTSD interferes severely with the individual's relationships with others and ability to work. If untreated, it can lead to secondary mental and physical health problems, and an increased risk of suicide.</p> <p>Developing a cognitive model of PTSD</p> <p>In the first phase of research in the late 1990s, Anke Ehlers and colleagues at Oxford developed a model of PTSD (Ehlers & Clark, 2000) that accounts for the development and persistence of the condition in individuals who have experienced traumatic events by a combination of three factors: 1) excessively negative appraisals, i.e. interpretations that the trauma and/or its consequences indicate a current threat, 2) a characteristic disturbance in autobiographical memory leading to unwanted re-experiencing of distressing moments of the trauma, and 3) problematic behaviours and cognitive strategies that prevent the appraisals and memory disturbance from changing, such as excessive precautions and rumination about the trauma. Experiments and prospective studies strongly supported the model (e.g. Ehlers et al, 1998).</p> <p>Developing an effective cognitive treatment for PTSD</p> <p>In the second phase, the model was used to generate a specific cognitive therapy (CT) for PTSD which sought to correct the three psychological factors identified in the model. After pilot studies, Ehlers' group conducted the first two randomised controlled trials (RCTs) (Ehlers et al, 2003, 2005) of the novel CT, and showed that it is effective in treating chronic PTSD and as an early intervention to prevent the development of chronic PTSD. Subsequent RCTs, by Ehlers' group, and others (e.g. Duffy et al, <i>BMJ</i> 2007; 334:1147-50; Smith et al, <i>J Am Acad Child Adol Psychiatry</i> 2007; 46:1051-1061), confirmed the effectiveness of the treatment in adults and children, leading to recovery in over 70% of cases. The treatment is very acceptable to patients, with lower dropout rates than have been reported for other psychological trauma-focused treatments.</p> <p>In addition to the evidence from RCTs, the value of CT for PTSD has been shown in two naturalistic settings. First, Ehlers' group were asked to train clinicians in Northern Ireland in the treatment in the first few months after the 1998 Omagh bomb. They showed that it achieved results as good as those in the Oxford RCTs when delivered to unselected individuals who developed PTSD as a consequence of their experiences on the day of the bombing. Second, and as a result of its success in Omagh, CT for PTSD was an integral part of the NHS response to the 2005 London bombings. Again, along with other trauma-focused psychological treatments, it achieved effect sizes at least as good and as durable as in the RCTs (Brewin et al, 2010).</p> |

Finally, recent work shows that the treatment also has very large effects in routine NHS clinical care, with 65% of PTSD patients achieving clinically significant improvement (see Section 4).

‘Debriefing’ is not effective against PTSD

As well as developing the highly effective treatment for PTSD, Ehlers and her colleagues at Oxford University also showed that an intervention that was commonly used in the immediate aftermath of trauma events is *not* effective. ‘Psychological debriefing’ was often provided to both civilian and military personnel after major events, but had rarely been tested properly, *i.e.* in an RCT. Mayou et al (2000) randomised road traffic accident victims shortly after the event to debriefing or no intervention, and studied the long-term effects on PTSD symptoms. The group who did *not* receive debriefing had a greater reduction in symptoms than those who did, suggesting that debriefing was not only ineffective but might even be harmful, by retarding natural recovery.

3. References to the research

Ehlers A, Clark DM (2000). A cognitive model of posttraumatic stress disorder. *Behaviour Research and Therapy*, 38, 319-345. DOI: 10.1016/S0005-7967(99)00123-0. [Paper outlining the psychological model of PTSD and treatment approach developed by the Oxford team](#). Scopus citations 4/9/13: 1174.

Ehlers A, Mayou RA, Bryant B (1998). Psychological predictors of chronic PTSD after motor vehicle accidents. *Journal of Abnormal Psychology*, 107, 508-519. DOI: 10.1037//0021-843X.107.3.508. [Prospective study supporting key assumptions of the model](#). Citations: 513.

Ehlers A, Clark DM, Hackmann A, McManus F, Fennell MJ, Herbert C, Mayou RA (2003). A randomized controlled trial of cognitive therapy, a self-help booklet, and repeated assessment as early interventions for PTSD. *Archives of General Psychiatry*, 60, 1024-1032. DOI: 10.1001/archpsyc.60.10.1024. [The first randomised controlled trial of CT for PTSD](#). Citations: 164.

Ehlers A, Clark DM, Hackmann A, McManus F, Fennell M (2005). Cognitive therapy for PTSD: development and evaluation. *Behaviour Research and Therapy*, 43, 413-431. DOI: 10.1016/j.brat.2004.03.006. [The second randomised controlled trial](#). Citations: 145.

Brewin CR, Fuchkan N, Huntley Z, Robertson M, Thompson M, Scragg P, d’Ardenne P, Ehlers A (2010). Outreach and screening following the 2005 London bombings: usage and outcomes. *Psychological Medicine*, 40, 2049-2057. DOI: 10.1017/S0033291710000206. [Shows that CT for PTSD, given as part of the NHS Trauma Response Programme for those affected by the London 2005 bombings \(together with other trauma-focused psychological treatments\), was as effective as it is in clinical trials](#). Citations: 8.

Mayou RA, Ehlers A, Hobbs M (2000). Psychological debriefing for road traffic victims: three year follow-up of a randomized controlled trial. *British Journal of Psychiatry*, 176, 589-593. DOI: 10.1192/bjp.176.6.589. [Randomised controlled trial finding poor long-term outcome after an early intervention commonly in use and advocated at the time](#). Citations: 173.

Major grants supporting the research

- Wellcome Principal Research Fellowship to Ehlers.
- Two consecutive Wellcome programme grants: ‘Cognitive processes in the maintenance and treatment of anxiety disorders’ (co-PI, David Clark) from 1993-8 and 1998-2003, total £1.5M.
- Wellcome Project Grant , ‘Psychological consequences of road traffic accidents in children’, 1993-2000 (£139K).

Key colleagues for the underpinning research included David Clark, Richard Mayou and Ann Hackmann.

4. Details of the impact

The research described above has had, and continues to have, a major impact on the treatment of PTSD in the NHS and overseas.

NICE clinical practice guidelines on the treatment of PTSD (see Section 5, Sources 1-3)

The National Institute for Health and Care Excellence (NICE) has issued guidelines for optimal treatment of PTSD. In the current version (NICE, 2005), Ehlers' CT for PTSD, together with other trauma-focused cognitive behavioural therapy programmes, is one of the first-choice options. This guidance was confirmed by a NICE evidence review in 2011, and is restated in the 2012 NICE PTSD care pathway. Conversely, in light of the negative findings from the Mayou et al (2000) trial (along with similar findings from Bisson in Cardiff, and others) NICE does *not* recommend the use of psychological debriefing immediately after a trauma. Instead, watchful waiting is recommended for the first few weeks, followed by Ehlers' CT, or another trauma focused psychological treatment, if natural recovery does not occur. Thus, Ehlers' research has had two positive impacts: providing a novel and effective treatment for PTSD, and avoiding provision of an ineffective one.

CT for PTSD disseminated within the English NHS (see Section 5, Sources 4-6)

The *Improving Access to Psychological Therapies (IAPT)* programme, which started in 2008, aims to greatly increase the availability of NICE recommended psychological treatments for anxiety disorders and depression by training up to 6,000 new psychological therapists by 2015 and employing them in specialised treatments services. CT for PTSD is included in the national training curriculum for IAPT (high intensity) therapists and has been taught on 21 IAPT high intensity therapy courses. To date around 2,200 IAPT therapists have learned the treatment, and are delivering it in over 130 local services. A further 900 IAPT therapists will be trained in the treatment in next two years. In addition, CT for PTSD is taught on other post-graduate diploma courses in psychological therapies (at least 1100 therapists trained in the treatment approach on these courses since 2008) and on clinical psychology courses.

CT for PTSD disseminated to victims of trauma in Northern Ireland (see Section 5, Source 7)

As noted in Section 2, Ehlers' CT proved effective for survivors of the Omagh bombing. Presentation of the results to the Northern Ireland Office by the Oxford/Omagh team led to funding to create the Centre for Trauma and Transformation in Omagh. This provided victims of numerous civil conflict events with CT for PTSD until 2011, when its activities were mainstreamed with the creation of a specialist diploma in CT for PTSD run from Queens University, Belfast. The diploma aims to spread CT for PTSD skills to multiple clinical settings in Northern Ireland.

International recognition and dissemination of CT for PTSD (see Section 5, Sources 8-10)

The outstanding results obtained with Ehlers' CT for PTSD have led clinicians and health service commissioners from many countries to request training. Since 2008, Ehlers and her team have provided workshops on the treatments in Australia, Denmark, Finland, France, Germany, Japan, Norway, Poland, Sweden and USA. A therapist manual has been published in German (Hogrefe; over 4000 sales since 2008). The manual is also available in Japanese. The treatment is currently being delivered in a large primary care intervention study in Stockholm. Ehlers received the German Psychology Prize 2013 (jointly awarded by 4 academic and professional psychology and psychotherapy organisations) in recognition of the impact of her PTSD research and treatment.

Clinical service design

The IAPT programme is the world's largest programme for disseminating evidence based psychological treatments. A key feature in the success of the programme has been the creation of an outcome monitoring system that is able to collect outcome data on almost everyone (>90%) who has any treatment. This system is based on the session-by-session outcome monitoring system that the Oxford based PTSD team pioneered in their initial work in Northern Ireland.

5. Sources to corroborate the impact**NICE clinical practice guidelines on the treatment of PTSD**

1. NICE (2005). Post-traumatic stress disorder (PTSD): The management of PTSD in adults and children in primary and secondary care (Clinical Guideline 26). London, UK: National Institute for Clinical Excellence. <http://www.nice.org.uk/nicemedia/pdf/CG026fullguideline.pdf> [Accessed 4/10/13]. Includes: '*All PTSD sufferers should be offered a course of trauma-focused psychological treatment (trauma-focused cognitive behavioural therapy* or eye movement desensitisation and reprocessing)*. [category A evidence]. Also: '*...debriefing*

*should not be routine practice ...' [category A evidence]. * includes Ehlers' CT for PTSD.*

2. The NICE Evidence review 2011 confirmed that the above guidelines remain in force: <http://guidance.nice.org.uk/CG26/ReviewDecision/pdf/English> [Accessed 4/10/13].
3. The NICE care pathway for PTSD (2012): <http://pathways.nice.org.uk/pathways/post-traumatic-stress-disorder> [Accessed 4/10/13].

CT for PTSD disseminated within the English NHS

4. Department of Health (2008). IAPT Implementation Plan: Curriculum for High Intensity Workers. Available at www.iapt.nhs.uk/silo/files/implementation-plan-curriculum-for-high8208intensity-therapies-workers.pdf [Accessed 4/10/13]. *Page 13 states that students need to be trained in at least 1 of 3 the treatment programmes for PTSD described in the 2007 competency framework [see next item], which includes Ehlers' CT. Page 17 describes 16 competencies that students need to develop in order to treat PTSD, six of which are specifically derived from Ehlers' CT programme.*
5. Roth AD, Pilling S (2007). The competencies required to deliver effective cognitive and behavioural therapy for depression and anxiety disorders. Department of Health. Available at http://www.ucl.ac.uk/clinical-psychology/CORE/CBT_Competences/CBT_Competence_List.pdf [Accessed 4/10/13]. *Pages 51-57 detail the competencies required for Ehlers' CT for PTSD.*
6. Ehlers A, Grey N, Wild J, Stott R, Liness S, Deale A, Handley R, Albert I, Cullen D, Hackmann A, Manley J, McManus F, Brady F, Salkovskis P, Clark DM (2013). Implementation of cognitive therapy for PTSD into routine clinical care: Effectiveness and moderators of outcome in a consecutive sample. *Behaviour Research and Therapy*. DOI: 10.1016/j.brat.2013.08.006 *Describes effectiveness of CT for PTSD in a consecutive NHS sample, after a wide range of traumas and concluded "CT-PTSD was well tolerated and led to very large improvement in PTSD symptoms, depression and anxiety".*

CT for PTSD disseminated to victims of trauma in Northern Ireland

7. Establishment of Northern Ireland Centre for Trauma and Transformation: <http://www.nictt.org/index.php/about-us/trauma-and-transformation-centre-2002-2011> *'Established in 2002...over a 12 year period using trauma focused cognitive therapy...the Centre...extended its provision to the wider regional population [over 700 referrals].'* NB: Link not currently active; webpage archived and available on request.

International recognition and dissemination of CT for PTSD

Letters available on file from:

8. Dr Michael Duffy (Queens University, Belfast) confirming the crucial contribution of the work of Ehlers' team to the creation of the Centre for Trauma and Transformation in Omagh, and the continuing work in training Northern Ireland clinicians in CT for PTSD. Includes: *'the major impact of Professor Anke Ehlers' research on the training of mental health clinicians....and the consequential provision of evidence-based psychological treatments.... In 2013...the new Victims and Survivors' Service...has specifically requested more extensive training in the Ehlers Clark PTSD model for therapists across the region.'*
9. Lord Richard Layard (London School of Economics and Political Sciences) confirming the importance of the data collection model developed for the Omagh study for the Improving Access to Psychological Treatments programme: *"the session-by-session monitoring developed on the Omagh cohort has been critical to the success of IAPT and the international acclaim it has achieved".*
10. Professor Lars-Goran Öst (Stockholm University, Sweden) confirming the dissemination of CT for PTSD in Sweden.