### **ORIGINAL PAPERS**

# Effectiveness of group-based cognitive—behavioural therapy in patients with obsessive—compulsive disorder

Colette Kearns, Yvonne Tone, Gavin Rush, James V. Lucey<sup>1,2</sup>

The Psychiatrist (2010), **34**, 6-9, doi: 10.1192/pb.bp.106.011510

<sup>1</sup>St Patrick's University Hospital, Dublin; <sup>2</sup>Trinity College, Dublin Correspondence to Gavin Rush (grush@stoatsmail.com) **Aims and method** To establish whether cognitive—behavioural therapy (CBT) with response and exposure prevention (ERP) is effective in individuals with obsessive—compulsive disorder (OCD). Twenty-four patients with OCD, divided into four groups, participated in ten sessions of group CBT. All patients completed the Yale—Brown Obsessive—Compulsive Scale (Y-BOCS), the Maudsley Obsessive—Compulsive Inventory (MOCI), the Beck Depression Inventory (BDI) and the Beck Anxiety Inventory (BAI) pre- and post-treatment.

**Results** The mean (s.d.) YBOC score post-treatment was 17.1 (5.8). This was significantly lower than the mean (s.d.) YBOC pre-treatment (24.7 (6.1); t = 8.4, d.f. = 23, P < 0.005). A significant reduction was also observed in relation to all other rating scales.

**Clinical implications** Cognitive—behavioural therapy for OCD delivered in a group setting is a clinically effective and acceptable treatment for patients. The use of group-based CBT is an effective means to improve access to psychotherapy.

**Declaration of interest** None.

Exposure and response prevention (ERP) is the behavioural treatment of choice for obsessive–compulsive disorder (OCD).¹ Many early studies showed 70–75% improvement after 15 sessions of ERP,².³ but later studies showed positive gains from cognitive approaches aimed at reducing obsessions and rituals. Several cognitive models have been proposed for OCD, including those of Salkovskis⁴ and Rachman.⁵ Rachman suggests that obsessions are caused by catastrophic misinterpretation of the significance of one's thoughts as originating in normal intrusive thoughts which are interpreted in relation to responsibility beliefs, controllability of thoughts and beliefs concerning danger and threat. Danger ideation reduction therapy, for individuals with OCD with washing/contamination concerns, has been shown to be as useful as ERP.<sup>6–8</sup>

Despite increasing interest in the role of cognitive therapy in the treatment of OCD, there is limited evidence to suggest that cognitive therapy is superior to ERP. In a study of three groups, one receiving cognitive therapy alone, one receiving ERP alone and one receiving ERP with cognitive therapy, there were no reported differences between the groups. Another study showed no difference between rational emotive therapy (analysing irrational thoughts) and exposure *in vivo*. 10

Patients with OCD respond well to individual therapy combining behavioural and cognitive approaches (cognitive-behavioural therapy, CBT) when delivered by a trained therapist.<sup>11</sup> Unfortunately, the supply of trained CBT

therapists is limited, leading to long waiting lists for this essential psychotherapy. Despite this, few studies have examined the effectiveness of group therapy for OCD. Krone et al<sup>12</sup> used psychoeducation about cognitive therapy and ERP approaches with 36 patients in weekly groups for 7 weeks. Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) scores changed significantly from moderately severe before treatment to below clinical levels at 3-month follow-up. A further study compared three groups: group one received ERP, group two received individual ERP and group three received individual sessions of progressive muscle relaxation. This study demonstrated that, after 2h once-weekly sessions, both individual and group ERP showed significant post-treatment improvement in OCD symptoms, depression and anxiety scores. 13 Bouvard et al 14 reported that 19 patients treated with six sessions of cognitive therapy followed by six sessions of ERP had a significant improvement following the cognitive therapy, but the addition of the ERP did not improve the patients further. The study was uncontrolled and non-randomised, but the clinical impression was that cognitive therapy helped to maintain the results in the long term.

#### Method

As a result of the limited data available on group CBT for patients with OCD, we undertook this naturalistic study in

6

the Department of Cognitive Behavioural Therapy, St Patrick's University Hospital, Dublin, Ireland. St Patrick's is a 300-bed facility affiliated to the University of Dublin, Trinity College, and a national referral centre for the management of mental illness. The CBT department has a particular interest in individuals with OCD.

Twenty-seven patients with OCD consecutively referred for CBT were invited to participate in group CBT as an alternative to individual treatment. Three patients declined, preferring to remain on the waiting list for individual therapy. Three of the 24 patients dropped out of the study during the course of the programme. All were out-patients and each met the DSM–IV criteria for OCD. They were referred by general practitioners and reviewed by consultant psychiatrists. The therapists worked under the supervision of a consultant psychiatrist.

We divided the participants into four groups (five, four, eight and seven patients). Each patient underwent an initial screen for diagnosis using DSM–IV criteria and suitability for CBT (e.g. motivation for change, behavioural goals, willingness to participate in a group). Ten men and fourteen women participated.

Seventeen patients were established on a selective serotonin reuptake inhibitor prior to participation in the group. The remaining seven patients were drug-free. The patients did not have any changes to their pharmacological treatment or participate in an alternative psychotherapeutic intervention during the course of the group therapy.

All participants completed pre- and post-treatment questionnaires. The rating scales used were the Yale–Brown Obsessive–Compulsive Scale (Y-BOCS),<sup>16</sup> the Maudsley Obsessive–Compulsive Inventory (MOCI),<sup>17</sup> the Life Adjustment Questionnaire and Visual Analogue Problems and Goals Measure,<sup>18</sup> the Beck Depression Inventory (BDI),<sup>19</sup> and the Beck Anxiety Inventory (BAI).<sup>20</sup>

Each group completed ten 90-minute CBT sessions, facilitated by a trained CBT therapist (YT or CK); the first and last group were facilitated by both therapists. A consultant psychiatrist (JVL) co-facilitated one session per group. Generally, each session began with feedback from the previous session, followed by a review of the previous week, a teaching part on a planned topic, discussion within the group, a key learning point and homework. The group format is presented in Table 1.

The group initially focused on exploring the fear and avoidance model of OCD and how this contributes to maintaining OCD cycles. It then moved into evolving a formulation based on Salkovskis' model. The group then focused on misinterpretation of thoughts and the rose of neutralisation, i.e. engaging in overt or covert impulsive rituals which maintain the illness. The group then moved on to look at appraisals that maintain OCD and challenged the meaning clients attribute to having the thoughts in the first place. We also explored patients' tendencies to overestimate dangers and their responsibility attached to events. Through the use of thought diaries we encouraged patients to watch out for misinterpretations of the significance of their

Table 1	Summary of intervention <sup>a</sup>			
Session	Plan <sup>b</sup>			
1	Introductions, purpose of group, ground rules Definition of OCD, CBT rationale for treatment, handouts, ratings/measures done Key learning points, homework for week			
2	Goal-setting Maintenance of OCD, exposure and response prevention Key learning point and homework			
3	Continued teaching on exposure and response prevention Key learning point and homework			
4	Obsessive thoughts diary Work on responsibilities and appraisals Key learning point and homework			
5	Specific work on thoughts; meaning, gathering evidence, use of thought diary Set behavioural experiment			
6	Cognitive strategies: probability measures, 'responsibility pie'9 Set homework			
7	Review of goals Overview of CBT strategies so far Key learning point and homework			
8	Case formulation, developing own by looking at early experiences and beliefs and rules that maintain OCD Key learning point and homework			
9	Review of skills learned Blueprint of recovery Relapse prevention			
10	Preparation for discharge Feedback regarding group Follow-up			

OCD, obsessive-compulsive disorder; CBT, cognitive-behavioural therapy

a. Further details of sessions available from authors

b. Sessions 2-8 began with feedback from the previous session and homework discussion.

Table 2   Rating scales: baseline scores and outcomes				
	Pre-treatment score Mean (range)	Post-treatment score Mean (range)	Significance of change <sup>a</sup>	
Yale-Brown Obsessive-Compulsive Scale	24.7 (12–38)	17.1 (6–28)	t = 8.4	
Maudsley Obsessive-Compulsive Inventory	17 (5–26)	14.4 (5-20)	t = 3.3	
Beck Depression Inventory	21.9 (3-45)	13.8 (0-31)	t = 5.88	
Beck Anxiety Inventory	20.8 (7–43)	15.7 (3-34)	t = 4.9	

a. For each scale: d.f. = 23, P < 0.005.

thoughts and to identify and challenge them when possible. We then requested participants to identify a key learning point at the end of each session and from this the ERP homework task was collaboratively derived. Each participant was encouraged to see how their experience fits into Salkovskis' model. At the end of therapy, participants were encouraged to design a blueprint for recovery summarising what they have learnt during the group sessions and what they need to focus on to consolidate the progress made in managing their OCD.

Statistical analysis was carried out using SPSS version 12 for Windows. Paired student's *t*-tests were used to compare symptom levels, using an intention-to-treat analysis (due to three non-completers), pre-treatment and post-treatment. Pearson's product moment correlation examined relationships between clinical characteristics and symptom variables.

Ethical approval for this study was obtained from the research ethics committee, St Patrick's University Hospital.

#### Results

#### **Participants**

There were 10 men and 14 women in the participant sample. The mean (s.d.) age of the participants was 43 years (range 26–68 years). The mean (s.d.) age at illness onset was 20 years (range 6–62 years). The mean (s.d.) illness duration was 21.6 years (range 2–50 years).

#### Measures of illness severity pre- and post-treatment

There was a significant reduction in clinical symptom ratings on completion of group CBT for individuals with OCD (Table 1).

There were no significant correlations between age, age at onset, illness duration and clinical variables (e.g. severity of illness) in relation to treatment response (Table 2).

#### **Discussion**

Without access to effective CBT/ERP, many individuals with OCD will remain symptomatic. This disorder is not amenable to other forms of psychotherapy and it has a very low rate of placebo response. <sup>21</sup> This fact alone distinguishes it therapeutically from many other psychiatric disorders.

Although it is generally accepted that this patient group needs access to CBT/ERP,<sup>22</sup> many patients are denied this form of treatment because of the scarcity of trained CBT therapists. It has been suggested that CBT could be applied

in groups, with results equivalent to those of individual treatment, particularly when the number of sessions is comparable with that usually provided for individual patients in controlled research (i.e. 12–20 sessions). Individuals with OCD frequently postpone requests for therapeutic help for many years and when they do present to services they may be faced with a long waiting list for effective psychotherapy. Evidence confirming the effectiveness of group-based CBT/ERP is therefore welcome as an aid to increase the availability of therapy to patients without a necessary increase in resources.

We have previously reported that individuals with OCD frequently refuse to participate in individual behavioural therapy.<sup>23</sup> However, the low level of drop-out from the CBT groups supports the impression that group therapy is an acceptable way of delivering CBT.

#### Limitations of the study

Our study is limited in scale and the participants were not randomised but selected consecutively from the waiting list for individual CBT. On completion of the treatment, patients were referred back to their treating clinician for ongoing care. We therefore have not collected data on longer-term outcomes or further management.

In summary, this study was performed in a naturalistic setting reflecting practice in a busy CBT department. Further study is warranted, such as a randomised control study comparing group, individual and biological therapies. However, our study confirms the *prima facie* case for including group-delivered CBT in any such comparison study. The provision of group CBT would allow this effective therapy to be available on a wider scale than currently.

#### **About the authors**

Colette Kearns is a senior cognitive behavioural therapist at St Patrick's University Hospital, Dublin. Yvonne Tone is a cognitive behavioural therapist in the Student Counselling Service, Trinity College, Dublin. Gavin Rush is a consultant psychiatrist at St Patrick's University Hospital. James V. Lucey is Clinical Professor of Psychiatry at the Department of Psychiatry, Trinity College, and Medical Director of St Patrick's University Hospital, Dublin, Ireland.

#### References

- 1 Van Oppen BL, Steketee G. Individual, group and multifamily cognitivebehavioural treatments. In Current Treatments of Obsessive—Compulsive Disorder (eds MT Pato, J Zohar): 133–72. American Psychiatric Press, 1991.
- 2 Marks IM, Hodgson R, Rachman S. Treatment of chronic obsessive—compulsive neurosis by in vivo exposure: a two-year follow-up and issues in treatment. Br J Psychiatry 1975; 127: 349–64.

- **3** Emmelkamp PM, Kraaen J. Therapist-controlled exposure *in vivo* versus self-controlled exposure *in vivo*: a comparison with obsessive-compulsive patients. *Behav Res Ther* 1977; **15**: 491–5.
- **4** Salkovskis PM. Obsessional-compulsive problems: a cognitive-behavioural analysis. *Behav Res Ther* 1985; **23**: 571–83.
- **5** Rachman S. A critique of cognitive therapy for anxiety disorders. *J Behav Ther Exp Psych* 1993; **24**: 279–88.
- **6** Jones MK, Menzies RG. Danger ideation reduction therapy (DIRT): preliminary findings with three obsessive–compulsive washers. *Behav Res Ther* 1997; **35**: 955–60.
- 7 Jones MK, Menzies RG. Danger ideation reduction therapy (DIRT) for obsessive-compulsive washers. A controlled trial. *Behav Res Ther* 1998; 36: 959-70.
- **8** Krochmalik A, Jones MK, Menzies RG. Danger ideation reduction therapy (DIRT) for treatment-resistant compulsive washing. *Behav Res Ther* 2001; **39**: 897–912.
- 9 van Oppen P, de Haan E, van Balkom AJLM, Spinhoven P, Hoogduin K, van Dyck R. Cognitive therapy and exposure in vivo in the treatment of obsessive-compulsive disorder. Behav Res Ther 1995; 33: 379–90.
- 10 Emmelkemp PM, Beens H. Cognitive therapy with obsessive-compulsive disorder: a comparative evaluation. *Behav Res Ther* 1991; 29: 293–300.
- 11 van Oppen P, van Balkom AJLM, de Haan E, van Dyck R. Cognitive therapy and exposure *in vivo* alone and in combination with fluvoxamine in obsessive-compulsive disorder: a 5-year follow-up. *J Clin Psychiatry* 2005; **66**: 1415–22.
- **12** Krone K, Himle J, Nesse R. A standardised behaviour group treatment program for obsessive–compulsive disorder: preliminary outcomes. *Behav Res Ther* 1991; **23**: 627–31.

- 13 Fals-Stewart W, Marks AP, Shafer J. A comparison of behavioural group therapy and individual behaviour therapy in treating obsessive– compulsive disorder. J Nerv Ment Dis 1993; 181: 189–93.
- 14 Bouvard M. A standardised cognitive-behavioural group treatment for obsessive-compulsive disorder: preliminary outcomes. *Encephale* 2002; 28: 439-46.
- 15 American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (4th edn) (DSM-IV). APA, 2000.
- 16 Goodman WK, Price LH, Rasmussen SA, Mazure C, Delgado P, Heniger GR, et al. The Yale–Brown Obsessive–Compulsive Scale. 1. Development use and reliability. Arch Gen Psych 1989; 46: 1006–11.
- 17 Sternberger LG, Burns GL. Maudsley Obsessional-Compulsive Inventory: obsessions and compulsions in a non-clinical sample. Behav Res Ther 1990; 28: 337–40.
- **18** Marks IM, Matthew AM. Brief standard rating for phobic patients. *Behav Res Ther* 1979; **17**: 263–7.
- 19 Beck AT, Steer RA, Garbin MG. Psychometric properties of the Beck Depression Inventory: twenty five years of evaluation. *Clin Psychol Rev* 1988; 8: 77–100.
- 20 Beck AT, Epstein N, Brown G. An inventory for measuring anxiety: psychometric properties. J Consult Clin Psychol 1988; 56: 893–7.
- 21 de Veaugh-Geiss J, Landau P, Katz R. Preliminary results from a multicentre trial of clomipramine in obsessive—compulsive disorder. *Psychopharmac Bull* 1989; 25: 36–40.
- 22 Braga DT, Cordioli AV, Niederauer K, Manfro GG. Cognitive—behavioral group therapy for obsessive—compulsive disorder: a 1 year follow-up. *Act Psych Scand* 2005; 112: 180–6.
- 23 Lucey JV, Butcher G, Clare AW, Dinan TG, et al. The clinical characteristics of patients with obsessive compulsive disorder. A descriptive study of an Irish sample. Ir J Psychol Med 1994; 11: 11–4.

## High- v. low-dose quetiapine in schizophrenia: meta-analysis

Nitesh Painuly<sup>1</sup>

The Psychiatrist (2010), **34**, 9-12, doi: 10.1192/pb.bp.108.022277

<sup>1</sup>Derby City General Hospital Correspondence to Nitesh Painuly (nitesh.painuly@gmail.com)

**Aims and method** To study the difference between high- and low-dose quetiapine in acute treatment of schizophrenia. Data available from published double-blind fixed-dose trials were combined and analysed.

**Results** There was no statistically significant difference between high- (750–800 mg/day) and low-dose (300–400 mg/day) quetiapine in terms of the response rate, change in positive symptoms score and the discontinuation rates either as a result of lack of response or adverse effects.

**Clinical implications** Combined evidence from fixed-dose trials does not support the prevalent practice of targeting the higher dose of quetiapine for optimal treatment response in schizophrenia.

**Declaration of interest** None.

There is uncertainty around the optimal dose of quetiapine in the treatment of schizophrenia. Clinicians in practice prescribe quetiapine at substantially higher dose than that established in clinical trials.<sup>1</sup> In a recent comprehensive review,<sup>2</sup> the authors concluded that the balance of evidence does not support the belief that higher dosages are required

