

Comparison of six- and eight-session cognitive guided self-help for bulimia nervosa

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Abstract

A previous case-series evaluation of a six-session guided self-help (GSH) approach with 15 people with bulimia nervosa (BN) showed significant reductions across all measures, including binge eating, self-induced vomiting, weight concern, shape concern and dietary restraint. However, the reduction of binge eating and self-induced vomiting was inferior to that achieved in more behavioural approaches. A further 10 people with BN were treated with an eight-session cognitive GSH, where the two extra sessions had a more behavioural focus. Although both conditions significantly decreased levels of binge eating and self-induced vomiting at post-treatment evaluation (with large effect sizes), comparisons of these two GSH conditions showed that an addition of two sessions did not significantly improve outcome on either of the behaviours. Cognitive GSH seems to be a worthwhile candidate for a first-step treatment in BN, but further improvements in this approach can be considered.

Cognitive behaviour therapy for bulimia nervosa (CBT-BN) has been recognised as the only therapy for BN to be supported by grade A evidence, given a number of randomised controlled trials that supports its efficacy (National Institute for Clinical Excellence, 2004). Specifically, it is suggested that this therapy, involving 20 sessions over a 5-month period, be offered to adults with BN above other types of therapy. Additionally, however, these clinical guidelines recommend the use of an evidence-based self-help programme as a first step in treatment for BN. The rationale for this suggestion is the burgeoning literature that suggests such self-help programs to be helpful for a sizeable minority of people with BN (Wilson, 1996), while requiring less time and therapy resources, and reduced access to specialist therapists.

Guided self-help (GSH) entails a nonspecialist therapist supporting the patient's use of a self-help manual. The sessions tend to be short (around 30 min) and typically consist of approximately six sessions. This method of delivering self-help has been preferred over the so-called pure self-help, where this latter approach simply involves giving a person the book to work through on his or her own. GSH is associated with at least some improvement in

bulimic symptoms for 73% of participants, compared to 47% of people in the pure self-help condition at 4-month follow-up (Palmer, Birchall, McGrain, & Sullivan, 2002). Pure self-help has not been found to impact significantly on dietary restraint, concerns about weight and shape, or general psychopathology (Carter et al., 2003). Although another study found no difference between GSH and pure self-help with respect to bulimic symptoms, GSH did achieve a significantly greater decrease in depressive symptoms than the pure self-help approach (Ghaderi & Scott, 2003). GSH is also associated with a significant reduction in eating psychopathology (Bailer et al, 2004).

Thiels, Schmidt, Treasure, Garthe, and Troop (1998) compared GSH conducted over eight fortnightly sessions using CBT principles to 16 weekly individualised sessions of CBT. At the end of treatment, the CBT condition was found to be superior to the GSH condition. However, substantial ongoing improvement in the GSH condition was reported between cessation of treatment and follow-up at around 5 months, such that remission rates of bingeing and purging became similar for GSH and pure CBT. Bailer et al. (2004) conducted a trial in

which GSH using CBT was compared to group CBT. Intention-to-treat analyses showed that the two groups did not differ in the proportion of patients who recovered or remitted, with the GSH group again showing continued improvement after cessation of therapy compared to the group CBT condition. Completer analyses indicated a significantly higher rate of remission of eating disorder symptoms in the GSH than the group CBT condition.

Changes in the first five sessions of CBT-BN are an important indicator of long-term improvement; and, in particular, an early reduction in vomiting has been shown to be a solid predictor of good longer-term outcome in BN treatment (Agras et al., 2000). Specifically, a reduction in purging of less than 70% by treatment session 6 predicted poor outcome (Agras et al., 2000). Conversely, treatment focused on behavioural symptoms and neglecting attitudes has been linked to a greater risk of relapse (Cooper & Steere, 1995; Freeman, Beach, Davis, & Solyom, 1985; Wilson, 1989). Baseline predictors of good treatment outcome also include a higher self-esteem (Coker, Vize, Wade, & Cooper, 1993), and lower levels of depression (Steel et al., 2000). A study by Fairburn, Peveler, Jones, Hope, and Doll (1993) found that of patients who were abstinent following CBT treatment cessation, those with more dysfunctional eating attitudes had an increased likelihood of relapse. A prospective study that examined the course of BN demonstrated that greater dysfunction in eating attitudes predicted persistence of binge eating (Fairburn et al., 2003).

Given the importance of cognitive and attitudinal change in promoting eating behaviour change, an investigation of GSH using a purely cognitive approach was conducted (Pritchard, Bergin, & Wade, 2004). Use of a self-help book for BN, entitled *Bulimia Nervosa: A Cognitive Therapy Programme for Clients* (Cooper, Todd, & Wells, 2000), containing only one chapter on behaviour change, was investigated in a case series study with respect to its impact on people with BN, in terms of both eating and attitudes. Although intention-to-treat analyses showed significant reductions in both binge eating and self-induced vomiting, reductions of these behaviours were not as impressive as in a comparable study using a CBT GSH (Cooper, Coker, & Fleming, 1994, 1996). At post-treatment evaluation and at follow-up binge eating was associated with a respective 73% and 74% reduction in the cognitive GSH compared to 80% and 84% in the more behavioural GSH study, and self-induced vomiting was less effectively reduced in the cognitive intervention: 39% and 57% compared to 79% and 87%. However, dietary restraint was tackled more effectively in the cognitive GSH approach than in the

CBT GSH approach (24% and 61% vs. 19% and 23% in the behavioural GSH). Not surprisingly, the cognitive GSH intervention appeared to be either equivalent or superior to the more behavioural GSH in reducing dysfunctional eating attitudes, including shape concern and weight concern. Additionally, intention-to-treat analyses showed a significant improvement in post-treatment self-esteem in the cognitive GSH.

Therefore the purpose of the current study was to compare a longer GSH intervention with the cognitive book (eight sessions), where more attention could be paid to behavioural interventions, with the six-session intervention previously evaluated (Pritchard et al., 2004). In this way, we see whether such a modification further improves the behavioural indicators of BN, that is, binge eating and self-induced vomiting.

Method

Participant recruitment

Participants were recruited during two separate time-periods (Study 1 and Study 2), through the Eating Disorders Association of South Australia, a feature article in a local newspaper and through direct referrals from private and public psychologists or social workers. In Study 1 (Pritchard et al., 2004), 20 participants were accepted into the program with two exclusions, one on the basis of limited English and one on the basis of suicidal ideation. In Study 2, 16 participants were accepted into the program, with no exclusions.

Assessment tool

Binge eating and self-induced vomiting were assessed using items from the 12th edition of the Eating Disorders Examination (EDE; Fairburn & Cooper, 1993), a semistructured investigator-based interview that measures eating-related behaviours and attitudes over the previous 3 months. Current body mass index (BMI) was also calculated from data collected using this instrument. Study 1 participants were given the complete EDE as an interview (either in person or over the phone) while Study 2 participants completed only selected EDE items presented in a self-report form.

Procedure

Participants in Study 1 were mailed a package containing information about the study and a questionnaire booklet containing additional assessment items. In the initial assessment, the therapist conducted the EDE, and provided further informa-

tion about the intervention, including providing the first section of psychoeducation in the manual.

Participants in Study 2 were mailed a package containing information about the study and a questionnaire booklet containing selected items from the EDE. Participants were asked to bring this booklet along to their initial assessment. In this initial assessment the therapist conducted a review of the questionnaire booklet in addition to providing further information about the intervention and the first section of psychoeducation in the manual.

All participants completed a pretreatment (T1) and post-treatment assessment (T2).

Treatment

Treatment for both groups consisted of individual sessions of between 30 and 50 min, guided by chapters taken from a treatment manual for bulimia nervosa (Cooper et al., 2000). Each session consisted of a homework review, a brief overview of the next week's reading, and support, encouragement and training in the methods described in the manual. Participants in Study 1 completed the initial assessment plus six GSH sessions. Participants in Study 2 completed the initial assessment plus eight GSH sessions. Participants were seen weekly by a clinical postgraduate student (either PhD or masters level), with most participants taking between 2 and 3 months to complete the required number of sessions. All therapists underwent training in GSH using the manual and in administration of the EDE, and were supervised by TW.

Study 1 participants completed sections of the manual covering psychoeducation regarding BN, motivation to change, the cognitive model of BN (including the vicious cycle of bingeing and purging), challenging dysfunctional cognitions, behavioural experiments and changing maladaptive behaviours. Study 2 participants completed two additional GSH sessions focused specifically on enhancing the behavioural components of the program through additional behavioural experiments and through an increased focus on maladaptive behaviours.

Statistical analyses

Participants in Study 1 and Study 2 were divided into those who completed the treatment and two assessments (completers) and those who dropped out prior to T2 assessment (noncompleters). A series of independent samples *t* tests were run to examine differences between completers and noncompleters as well as differences between Study 1 and Study 2 participants. Subsequent comparisons between Study 1 and Study 2 participants were made on the basis of completer data only.

Primary analysis involved a comparison between Study 1 and Study 2 completers on changes in binge eating and self-induced vomiting over time. For all participants, total episodes of binge eating and vomiting over a 3-month period were converted to an average per month for both T1 and T2. Both binge eating and self-induced vomiting variables were found to violate assumptions of normality but subsequent transformations did not affect statistical significance, hence statistics presented here are analyses of variables in their original form. Two-tailed, paired samples *t* tests were used to assess changes over time in binge eating and self-induced vomiting within each study. Mixed between-within subjects analyses of variance (ANOVAs) were used to assess differences over T1 and T2 in binge eating and vomiting between Study 1 and Study 2. Effect sizes of the change between T1 and T2 ($ES\Delta$) were calculated by dividing the mean change score by the standard deviation of the change scores, where 0.2 is a small effect size, 0.5 a moderate effect size and 0.8 a large effect size (Cohen, 1988).

Results

Participant characteristics: Completers and noncompleters

Twenty participants were accepted into Study 1 (1 male and 19 female participants) while 16 participants were accepted into Study 2 (all female). Table I shows the baseline characteristics (i.e., T1 variables) of all participants, divided into completers and noncompleters. Study 1 had a 25% drop-out rate while Study 2 had a 38% drop-out rate.

Study 1 participants reported significantly more vomiting episodes than Study 2 participants at T1 ($t(33) = 2.30, p = .03$), however there were no other significant differences between completers and noncompleters or differences between participants in Study 1 and Study 2. There was a trend for noncompleters in both groups to have a higher BMI.

Completer analysis

Table II summarises the pretreatment and post-treatment means for completers in Study 1 and Study 2. Both the six- and eight-session GSH programs produced significant reductions in binge eating and vomiting episodes, achieving large effect sizes. However, there were no significant differences between the groups or significant interactions between time and group (i.e., Study 1 vs. Study 2). Both treatments achieved a similar reduction for binge eating but participants in Study 2 achieved a better reduction in self-induced vomiting (56%) than the participants in Study 1 (39%).

Table I. Baseline descriptive statistics for Study 1 and Study 2 participants (completers and noncompleters)

Participant characteristics	Study 1		Study 2	
	Completers <i>M</i> (<i>SD</i>) <i>n</i> = 15	Noncompleters <i>M</i> (<i>SD</i>) <i>n</i> = 5	Completers <i>M</i> (<i>SD</i>) <i>n</i> = 10	Noncompleters <i>M</i> (<i>SD</i>) <i>n</i> = 6
Age at intake (years)	29.93 (8.73)	27.20 (9.42)	29.8 (6.97)	27.6 (9.81) ^b
BMI at intake	22.68 (5.37)	25.11 (5.42)	22.51 (3.14) ^a	29.01 (12.56) ^b
Objective binges/month (average over last 3 months)	23.99 (21.37)	23.60 (18.53)	15.65 (13.34)	16.94 (5.70)
Vomiting episodes/month (average over last 3 months)	38.13 (43.21)	46.93 (50.21)	16.85 (13.66)	14.03 (11.24)

Note. BMI = body mass index.

^a*n* = 8; ^b*n* = 5.

Table II. Completer analyses

Variable	Study 1, 6 sessions (<i>N</i> = 15)						Study 2, 8 sessions (<i>N</i> = 10)					
	Pre-T <i>M</i> (<i>SD</i>)	Post-T <i>M</i> (<i>SD</i>)	<i>t</i> (14)	<i>p</i>	ESΔ	%	Pre-T <i>M</i> (<i>SD</i>)	Post-T <i>M</i> (<i>SD</i>)	<i>t</i> (9)	<i>p</i>	ESΔ	%
Objective binges (average over last 3 months) ^a	23.99 (21.37)	6.53 (7.99)	3.25	.006	.80	73	15.65 (13.34)	5.4 (10.21)	2.54	.03	.72	65
Vomiting episodes (average over last 3 months) ^b	38.13 (43.21)	23.13 (32.60)	2.79	.015	.93	39	16.85 (13.66)	7.37 (10.50)	2.93	.02	.84	56

Note. ESΔ = effect size of change; % = percentage reduction between before and after treatment. Pre-T = pretreatment; Post-T = post-treatment.

^aStatistically significant main effect for time, $F(1,23) = 14.08$, $p = .001$.

^bStatistically significant main effect for time, $F(1,23) = 11.76$, $p = .002$.

Discussion

The aim of the current study was to compare the efficacy of an eight-session cognitive GSH program for BN, with the same GSH program carried out over six sessions. Of particular interest was whether there was any difference in the reduction of behavioural indicators of BN, that is, binge eating and self-induced vomiting. In particular, it was hypothesised that an additional two sessions of GSH allowing greater attention to behavioural factors would result in greater reductions in binge eating and vomiting frequency over the length of treatment.

In both GSH conditions, binge eating and self-induced vomiting were significantly reduced and were associated with large effect sizes that indicate clinical importance. However, the results of this study suggest no significant additional benefit on behavioural indicators of BN as a result of adding two extra sessions of GSH. This is consistent with data that suggest that if progress is not achieved in CBT-BN with respect to behavioural markers within the first five therapy sessions, then there is little

likelihood that these indicators will change much over the course of therapy (Agras et al., 2000).

Given that poor outcome for CBT-BN is predicted by a reduction of purging of less than 70% at treatment session 6 (Agras et al., 2000), is the small reduction of self-induced vomiting an indicator that the cognitive GSH is an inadequate treatment? There are two reasons to think that this might not be the case. First, several studies indicate that improvement continues after cessation of GSH, unlike CBT-BN (Bailer et al., 2004; Pritchard et al., 2004). This ongoing improvement may be similar to that found for interpersonal psychotherapy (IPT), where CBT is found to be significantly superior to IPT at post-treatment evaluation, but with no statistical difference between the two therapies at 12-month follow-up because people in the IPT condition continue to improve (Agras et al., 2000). This is despite a reduction of only 52% in self-induced vomiting after treatment with IPT, similar to the reduction achieved in the eight-session cognitive GSH intervention. Second, reduction in dietary restraint as early as week 4 of treatment using both CBT-BN and IPT has been shown to mediate improvement in both

binge eating and self-induced vomiting (Wilson, Fairburn, Agras, Walsh, & Kraemer, 2002). The evaluation of the six-session cognitive GSH (Pritchard et al., 2004) indicates that dietary restraint is favorably improved compared to the more behavioural approach. Thus it is conceivable that a more significant reduction of self-induced vomiting may result within a 12-month period. Thus a longer-term follow-up of the cognitive GSH will be required in order to definitively address whether it adequately impacts on the behavioural markers of BN.

The results of the current study should be interpreted within the context of three limitations. First, there are some possible confounds between the two cognitive GSH conditions. In the longer condition, therapy tended to be less structured because therapists felt that they had more time to address issues that were brought up in the session by the client. Second, we have inadequate power to definitely show an advantage of one condition over another. However, our effect sizes suggest that there is no sizeable difference between the two conditions. Finally, as indicated earlier, lack of a longer follow-up period means that we are not measuring any further changes that may be occurring in the participants.

In summary, there seems to be no convincing indicator to suggest that cognitive GSH needs to consist of more than six sessions. Indeed, the effect sizes and the drop-out rates would suggest that this shorter approach may actually be better tolerated by the clients. In terms of improving the outcome for behavioural markers of BN, behavioural homework assignments have been postulated to be the promising candidate for explaining the rapid effect of CBT (Wilson et al., 2002). This element is largely missing in the cognitive approach, so although emphasis on the cognitive elements yields benefits in terms of attitudes and dietary restriction, it may be that the inclusion of behavioural homework early in the course of cognitive GSH may incorporate the best of both worlds. In its current form, cognitive GSH represents a worthwhile first-step treatment for BN, one that is accepted and liked by clients and therapists alike.

References

- Agras, S. W., Crow, S. J., Halmi, K. A., Mitchell, J. E., Wilson, T. G., & Kraemer, H. C. (2000). Outcome predictors for the cognitive behaviour treatment of bulimia nervosa: Data from a multisite study. *American Journal of Psychiatry*, *157*, 1302–1308.
- Bailer, U. F., de Zwaan, M., Leisch, F., Strnad, A., Lennkh-Wolfsberg, C., El-Giamal, N., et al. (2004). Guided self-help versus cognitive group therapy in the treatment of bulimia nervosa. *International Journal of Eating Disorders*, *35*, 522–537.
- Carter, J. C., Olmsted, M. P., Kaplan, A., McCabe, R. E., Mills, J. S., & Aime, A. (2003). Self-help for bulimia nervosa: A randomised controlled study. *American Journal of Psychiatry*, *160*, 973–978.
- Cohen, J. (1988). *Statistical power analysis for the behavioural sciences*. Hillsdale, NJ: Erlbaum.
- Coker, S., Vize, C., Wade, T., & Cooper, P. J. (1993). Failure to engage in cognitive behaviour therapy. *International Journal of Eating Disorders*, *13*, 35–40.
- Cooper, M., Todd, G., & Wells, A. (2000). *Bulimia nervosa: A cognitive therapy programme for clients*. London: Jessica Kingsley Publishers.
- Cooper, P. J., Coker, S., & Fleming, C. (1994). Self-help for bulimia nervosa: A preliminary report. *International Journal of Eating Disorders*, *16*, 401–404.
- Cooper, P. J., Coker, S., & Fleming, C. (1996). An evaluation of the efficacy of supervised cognitive behavioural self-help for bulimia nervosa. *Journal of Psychosomatic Research*, *40*, 281–287.
- Cooper, P. J., & Steere, J. (1995). A comparison of two psychological treatments for bulimia nervosa: Implications for models of maintenance. *Behaviour Research and Therapy*, *33*, 875–885.
- Fairburn, C. G., & Cooper, Z. (1993). The Eating Disorder Examination (12th ed.). In C. G. Fairburn, & G. T. Wilson (Eds.), *Binge eating: Nature, assessment and treatment* (pp. 317–360). New York: Guilford Press.
- Fairburn, C. G., Peveler, R. C., Jones, R., Hope, R. A., & Doll, H. A. (1993). Predictors of 12-month outcome in bulimia nervosa and the influence of attitudes to shape and weight. *Journal of Consulting and Clinical Psychology*, *61*, 696–698.
- Fairburn, C. G., Stice, E., Cooper, Z., Doll, H. A., Norman, P. A., & O'Connor, M. E. (2003). Understanding persistence in bulimia nervosa: A five-year naturalistic study. *Journal of Consulting and Clinical Psychology*, *71*, 103–109.
- Freeman, R. J., Beach, B., Davis, R., & Solyom, L. (1985). The prediction of relapse in bulimia nervosa. *Journal of Psychiatric Research*, *19*, 349–353.
- Ghaderi, A., & Scott, B. (2003). Pure and guided self-help for full and threshold bulimia nervosa and binge eating disorder. *British Journal of Clinical Psychology*, *42*, 257–269.
- National Institute for Clinical Excellence. (2004). *Eating disorders. Core interventions in the treatment and management of anorexia nervosa, bulimia nervosa and related eating disorders*. London: National Health Service.
- Palmer, R. L., Birchall, H., McGrain, L., & Sullivan, V. (2002). Self-help for bulimic disorders: A randomized controlled trial comparing minimal guidance with face-to-face or telephone guidance. *British Journal of Psychiatry*, *181*, 230–235.
- Pritchard, B. J., Bergin, J. L., & Wade, T. D. (2004). A case series evaluation of guided self-help for bulimia nervosa using a cognitive manual. *International Journal of Eating Disorders*, *36*, 144–156.
- Steel, Z., Jones, J., Adcock, S., Clancy, R., Bridgford-West, L., & Austin, J. (2000). Why the high rate of dropout from individualised cognitive-behaviour therapy for bulimia nervosa? *International Journal of Eating Disorders*, *28*, 209–214.

- Thiels, C., Schmidt, U., Treasure, J., Garhe, R., & Troop, N. (1998). Guided self-change for bulimia nervosa incorporating use of a self-care manual. *American Journal of Psychiatry*, *155*, 947–953.
- Wilson, G. T. (1989). Treatment outcome in bulimia. *Advances in Behaviour Research and Therapy*, *11*, 161–174.
- Wilson, G. T. (1996). Treatment of bulimia nervosa: When CBT fails. *Behaviour Research and Therapy*, *34*, 197–212.
- Wilson, G. T., Fairburn, C. G., Agras, W. S., Walsh, B. T., & Kraemer, H. (2002). Cognitive-behaviour therapy for bulimia nervosa: Time course and mechanisms of change. *Journal of Consulting and Clinical Psychology*, *70*, 267–274.